hollis architects miller

we design the future®

ADDENDUM NO. 03

Issued: 12.21.23

Project: Ridgeview Elementary School
701 Thornton Street, Liberty, Missouri 64068

Project No. 23026

Owner: Liberty Public Schools
8 Victory Lane
Liberty, MO 64068

Bidding Documents Issued: 11.30.23

This Addendum includes these 1 page and the following attachments:

Project Manual:
Reissued Section 237433 "Dedicated Outdoor Air Units" consisting of (6) pages

Drawings:
Revised Architectural Sheets: A681
Refer to Henderson Engineers, MEP Addendum No. 3

DRAWINGS REVISIONS

A1 SHEET A681 MATERIAL FINISH LEGEND AND ROOM SCHEDULE

A1.1 ADDED Storage B221a to Room Finish Schedule

T1 REFERENCE ATTACHED MEP ADDENDUM NO. 2

END OF ADDENDUM NO. 3

HENDERSON ENGINEERS

ADDENDUM NO 03

December 22, 2023

ISSUED BY
Henderson Engineers, Inc.
8345 Lenexa Dr.
Lenexa, KS 66214

ISSUED FOR
Hollis + Miller
1828 Walnut Street Suite 922
Kansas City, MO 64108

NOTICE TO ALL BIDDERS FOR THE
Liberty Public Schools Ridgeview Elementary School

You are instructed to read and to note the following described changes, corrections, clarifications, omissions, deletions, additions, approvals, and statements pertinent to the Contract Bid and Construction Documents.

This addendum is part of the Contract Bid and Construction Documents and shall govern in the performance of the Work.

SPECIFICATIONS

1. 237433 Dedicated Outdoor Air Units
    a. Added CaptiveAire as approved manufacturer in section 2.1.A.

TECHNOLOGY

1. Sheet TND102A – TECHNOLOGY LEVEL 2 DEMO PLAN – AREA A
    a. Added note to reland cabling to new device if service loop allows and to coil up cabling above ceiling if service loop isn't sufficient.
2. Sheet TND102B – TECHNOLOGY LEVEL 2 DEMO PLAN – AREA B
    a. Added note to reland cabling to new device if service loop allows and to coil up cabling above ceiling if service loop isn't sufficient.
3. Sheet TN102A – TECHNOLOGY LEVEL 2 PLAN – AREA A
    a. Added note to reland cabling to new device if service loop allows and to provide new cabling if service loop isn't sufficient.
4. Sheet TN102B – TECHNOLOGY LEVEL 2 PLAN – AREA B
    a. Added note to reland cabling to new device if service loop allows and to provide new cabling if service loop isn't sufficient.

SECTION 237433 - DEDICATED OUTDOOR AIR UNITS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Package rooftop mounted units capable of supplying 100 percent outdoor air.

1.2 SUBMITTALS

A. Product Data: Provide manufacturer's technical product data, including rated capacities of selected model clearly indicated, dimensions, required clearances, weights, and furnished specialties and accessories. Provide short circuit current rating of units with factory mounted starter or variable frequency drive.

B. Sustainable Design Documentation: Submit manufacturer's product data on refrigerant used, showing compliance with specified requirements.

C. Shop Drawings:
   1. Submit manufacturer's assembly-type shop drawings indicating dimensions, required clearances, and methods of assembly of components
   2. Submit shop drawings detailing the mounting, securing, and flashing of the roof curb to the roof structure. Indicate coordinating requirements with roof membrane system.

D. Wiring Diagrams: Submit wiring diagrams detailing the manufacturer's electrical requirements for power supply wiring for dedicated outdoor air heating and cooling units. Submit manufacturer's ladder-type wiring diagrams for interlock and control wiring. Clearly differentiate between portions of wiring that are factory-installed and portions to be field-installed.

E. Manufacturer's Instructions: Indicate assembly, support details, connection requirements, and include start-up instructions.

F. Operation and Maintenance Data: Submit maintenance data and parts list for each dedicated outdoor air unit, including "trouble-shooting" maintenance guide, servicing guide and preventative maintenance schedule and procedures. Include this data in maintenance manual; in accordance with requirements of Division 1.

G. Warranty: Submit manufacturer's warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

B. Codes and Standards:
   1. Gas-fired furnace section construction shall be in accordance with AGA safety standards. Furnace section shall bear the AGA label.
   2. AHRI Compliance:
      a. Testing and rating of dedicated outdoor air units capacity shall be in accordance with AHRI 920 “Performance Rating of DX Dedicated Outdoor Air System Units”.
      b. Capacity ratings for air-to-air energy recovery equipment shall comply with AHRI 1060 “Performance Rating of Air-to-Air Heat Exchangers for Energy Recovery Ventilation Equipment”.
      c. Capacity ratings for water coils shall comply with AHRI 410 “Forced-Circulation Air- Cooling and Air-Heating Coils”.
      d. Sound testing and rating of units shall be in accordance with AHRI 270 “Sound Performance Rating of Outdoor Unitary Equipment”. Units shall bear Certified Rating Seal.
   3. Refrigerating system construction of dedicated outdoor air units shall be in accordance with ASHRAE 15 “Safety Code for Mechanical Refrigeration”.

4. Integrated Seasonal Moisture Removal Efficiency (ISMRE) and Integrated Seasonal Coefficient of Performance (ISCOP) of dedicated outdoor air units shall be equal to or greater than prescribed by ASHRAE 90.1 “Energy Standard For Buildings Except Low-Rise Residential Buildings”.
5. Dedicated outdoor air units shall be listed by UL and have UL label as a unit. Comply with UL 1995 “Heating and Cooling Equipment”.
6. Dedicated outdoor air units shall be designed, manufactured, and tested in accordance with UL requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Accept products, with factory-installed shipping skids and lifting lugs. Comply with manufacturer's installation instructions for rigging, unloading, and transporting units. Inspect for damage.

B. Protect units from physical damage by storing off site or in locked, protected area until roof mounting curbs are in place, ready for immediate installation of units.

1.5 SPECIAL WARRANTY

A. Warranty on Compressor and Gas Heat Exchanger: Provide written warranty, signed by manufacturer, agreeing to replace/repair, within warranty period, compressors and gas heat exchangers with inadequate and defective materials and workmanship, including leakage, breakage, improper assembly, or failure to perform as required; provided manufacturer's instructions for handling, installing, protecting, and maintaining units have been adhered to during warranty period. Replacement is limited to component replacement only, and does not include labor for removal and reinstallation.
   1. Warranty Period: 5 years from date of substantial completion.

1.6 SPARE PARTS

A. General: Furnish to Owner, with receipt, the following spare parts for each dedicated outdoor air unit.
   1. One set of matched fan belts for each belt driven fan.
   2. One set of spare filters of each type required for each unit. Obtain receipt from Owner that spare filters have been provided. In addition to the spare set of filters, install new filters at completion of installation work, and prior to testing, adjusting, and balancing work.
   3. If HVAC equipment is used during the construction period, Contractor shall provide one set of filters (if system is designed to include pre-filters and after-filters, provide only pre-filters) when the unit is started and replace filters when needed, but not less than every month. On the day of substantial completion, the Contractor shall clean the unit and provide a new set of filters at each location in the unit.

PART 2 - PRODUCTS AND MATERIALS

2.1 PACKAGED ROOFTOP UNITS

A. Manufacturers
   1. Trane.
   2. Lennox.
   3. Daikin.
   4. **CaptiveAire**

B. Manufactured Units
   1. General: Roof or slab mounted units, factory assembled, prewired and tested,
   2. Description: Self-contained, packaged unit consisting of compressors, condensers, evaporator coils, heating system, condenser and evaporator fans, energy recovery device, refrigeration and temperature controls, filters, and dampers. Capacities and electrical characteristics shall be as scheduled on the Drawings.
   3. Refrigerant: Provide dedicated outdoor air units designed to operate with refrigerant as scheduled on the drawings.

C. Fabrication
   1. Cabinet: Provide manufacturer's standard double wall casing construction with fiberglass or foam-injected insulation that provides a minimum R-6 R value. Incorporate a thermal break such that there is no through metal path between the interior and exterior surface of the unit casing at all panel frames, joining mullions, or corners. Provide corrosion protection coating and exterior finish that meets ASTM B117 salt spray test of

minimum 500 hours. Provide removable panels or access doors for inspection and access to internal parts, knockouts for electrical and piping connections, an exterior condensate drain connection and lifting lugs.
   a. Bottom Duct Connections: Provide steel or aluminum walking grate on structural supports where connections are located in sections accessible by personnel for maintenance.
2. Condensate Drain Pan: Provide galvanized or stainless steel condensate drain pan sloped to drain connection.
3. Filters Section: Provide filter housing of material matching the unit casing with gasketed filter media holding frames. Size housing to accommodate the filters scheduled on the drawings. Provide access panel(s) large enough for filter replacement with continuous gasketing and positive locking devices.
4. Roof Curbs: Refer to Section “Hangers and Supports for HVAC” for pre-engineered roof equipment supports and Section “Vibration Isolation for HVAC Piping and Equipment” for vibration isolated equipment support bases.

D. Fans
1. Supply Fans:
   a. Provide forward-curved or backward inclined, centrifugal fan wheel, V-belt drive with adjustable variable pitch motor pulley or direct drive, rubber isolated hinge mounted high efficiency motor and permanently lubricated motor bearings.
   b. Provide plenum fan with airfoil blade wheel with heavy gauge spun aluminum inlet cone.
2. Exhaust Fan: Provide a forward curved exhaust fan(s) with adjustable V-belt drive and a backdraft damper.
3. Condenser Fans: Provide propeller-type, direct-driven fans, resiliently mounted with fan guard, with permanently lubricated bearings.

E. Motors:
1. Refer to Section “Common Motor Requirements for HVAC Equipment” for requirements.

F. Air Filtration
1. Pre-Filters Section: Provide fiberglass throwaway pleated filters in filter rack, with maximum face velocity of 400 fpm. Provide filters of thickness and minimum MERV rating per ASHRAE 52.2as scheduled on the drawings.

G. Gas-Fired Heat Exchangers:
1. Provide aluminized steel construction for gas-fired heat exchangers and burners with entering air temperatures higher than 50 F. Provide stainless steel construction for gas-fired heat exchangers and burners with entering air temperatures less than or equal to 50 F or have airstreams that are corrosive. Provide heat exchangers and burners designed for staged or modulating operation as scheduled or noted on the drawings with minimum efficiency of 80 percent. Provide single gas connection.
2. Gas Burner: Atmospheric or power-vented type burner with adjustable combustion air supply, pressure regulator, gas valves, manual shut-off, intermittent spark or glow coil ignition, flame sensing device, and automatic 100 percent shut-off pilot.
3. Operating Controls: Provide the following controls for the gas-fired heat exchangers:
   a. Intermittent pilot ignition;
   b. Electronic spark ignition system;
   c. High limit cutout;
   d. Forced draft proving switch;
   e. Flame roll-out switch.

H. Evaporator DX Coils
1. Provide copper tube aluminum fin coil assembly with galvanized drain pan and connection.
2. Provide equalizing type vertical distributor to ensure each coil circuit receives the same amount of refrigerant.
3. Provide interlaced coils in multiple stage units to ensure full coverage over coil face.
4. Coils shall be proof (450 psig) and leak (300 psig) tested with air pressure under water, then cleaned, dehydrated, and sealed with a holding charge of refrigerant.
5. Provide 1 inch factory installed flexible elastomeric insulation around the suction and liquid lines not directly located above a condensate drain pan. If any piping is exposed to sunlight, provide UV protective coating.

I. Hot Gas DX Reheat Coils:
1. Provide hot gas reheat coil with staged or modulating control for reheat during dehumidification operation. Size hot gas reheat coil capacity to maintain supply air temperature when unit is operating in the dehumidification mode. Refer to control drawings.

J. Compressors

1. Provide serviceable, semi-hermetic, or fully hermetic compressors, complete with integral vibration isolators and crankcase heaters which de-energize during compressor operation.
2. Units shall have the following capacity control measures to prevent excessive compressor short cycling and prevent evaporator coil from freezing:
    a. Digital scroll compressor as the first stage.
    b. Inverter scroll compressor as the first stage.
3. Heat Pump Units: Provide reversing valve with a replaceable magnetic coil, suction line accumulator, flow control check valve, and solid state defrost control utilizing thermistors. Refrigerant system shall have a pump-down cycle.
4. Accessories: Thermal expansion valves, filter dryers, sight glasses, compressor service valves, liquid line service valves; minimum of 2 refrigerant circuits for units having 2 or more compressors.

K. Condenser Coils
1. Provide copper tube aluminum fin coil assembly with subcooling rows and coil guard.
2. Provide corrosion protective coating where scheduled.
3. Provide refrigerant pressure switches to cycle condenser fans,

L. Air Connections
1. Dampers: Dampers and their operators shall comply with performance requirements specified in Division 23 Section “Instrumentation and Control Devices for HVAC.”
2. Supply Air: Provide flanged connection with gasket to minimize air leakage.
3. Outdoor Air: Provide intake hood or louver designed to inhibit wind-driven rain and snow from entering unit.
    a. Provide complete with birdscreen, 1/2” mesh aluminum or stainless steel.
    b. Dampers: Provide outside air damper constructed of extruded aluminum, hollow core, airfoil blades with rubber edge seals and aluminum end seals. Damper blades shall be gear driven.

M. Energy Recovery Devices.
1. Energy Recovery Wheel: Provide a factory mounted, wired, and tested energy recovery wheel. The energy recovery wheel shall have latent and sensible recovery capacities as required to meet or exceed the capacities scheduled on the drawings.
    a. Mount the energy recovery wheel in a rigid frame containing the wheel drive motor, redundant drive belts, wheel seals, and bearings.
    b. Provide an energy recovery wheel constructed of a light weight polymer material with permanently bonded desiccant coating. The wheel shall be removable from the cabinet and cleanable using hot water or light detergent without degrading the latent efficiency.
    c. Provide a filter bank on the upstream side of each air stream with 2" thick fiberglass throwaway filters in filter rack, with maximum face velocity of 400 fpm and minimum MERV rating per ASHRAE 52.2 of MERV 8.
    d. Bypass Dampers: Provide bypass dampers for economizer control. The energy recovery wheel shall be sized for the full airflow as scheduled.

N. Operating Controls:
1. Provide solid-state control board and components that contain at a minimum the following features:
    a. Supply fan on/off delay.
    b. Default control to ensure proper operation after power interruption.
    c. Service relay output.
    d. Unit diagnostics and diagnostic code storage.
    e. Field-adjustable control parameters.
    f. Minimum run time.
    g. Fan-proving switch to lock out unit if fan fails.
2. DDC Interface: Install stand-alone control module providing link between unit controls and DDC system. Control module shall be compatible with temperature-control system specified in Division 23 section "Direct Digital Control for HVAC."

O. Safety Controls: Provide manual reset type safety controls for:
1. Low pressure cutout;
2. High pressure cutout;
3. Compressor motor overload protection.
4. Anti-recycling timing device;
5. Adjustable low-ambient lockout;
6. Oil pressure switch.

P. Electrical:
1. Provide a 125 VAC, 20 amp duplex convenience receptacle mounted to unit ready for field wiring through the curb with a cover UL listed for wet and damp locations when in use.
2. Unit power connection shall be either through unit cabinet or within roof curb perimeter.
3. Dedicated outdoor air units shall be designed to meet a minimum short-circuit withstand rating as specified on the drawings.

Q. Accessories: Units shall include the following accessories where scheduled or shown on the drawings:
1. Anti-recycling control to automatically prevent compressor restart for 5-minutes after shutdown.
2. Provide guards to protect the condenser coil from hail or other damage.
3. Provide smoke detector factory installed in supply air.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas and conditions under which dedicated outdoor air units are to be installed for compliance with requirements for installation tolerances and other conditions affecting performance of units.

B. Examine roughing-in for dedicated outdoor air units to verify actual locations of piping and duct connections before equipment installation.

C. For roof installed units, verify that roof is ready to receive work and opening dimensions are as indicated on shop drawings.

D. Do not proceed with work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION OF DEDICATED OUTDOOR AIR UNITS

A. General: Install dedicated outdoor air units in accordance with manufacturer's installation instructions. Install units plumb and level, firmly anchored in locations indicated, and maintain manufacturer's recommended clearances.

B. Secure roof-mounted units to roof equipment supports and grade-mounted units to curbs or base. Refer to the drawings for the type of support required for each dedicated outdoor air unit.
1. Refer to Section “Hangers and Supports for HVAC Piping and Equipment” for standard roof curbs.
2. Refer to Section “Vibration Isolation For HVAC” for vibration isolation curbs.

C. Support suspended units from structural steel support frame using threaded steel rods and spring hangers. Comply with Division 23 section “Vibration Isolation For HVAC Piping and Equipment”.

D. Electrical Wiring: Install electrical devices furnished by manufacturer but not specified to be factory-mounted. Furnish copy of manufacturer's wiring diagram submittal to electrical installer.
1. Verify that electrical wiring installation is in accordance with manufacturer's submittal and installation requirements of Division-26 sections. Do not proceed with equipment start-up until wiring installation is acceptable to equipment Installer.

E. Ductwork: Refer to Division-23 section "Metal Ducts". Connect supply and return ducts to unit with flexible duct connections. Provide transitions to exactly match unit duct connection size.

F. Piping: Piping installation requirements are specified in other Division 23 sections. The Drawings indicate the general arrangement of piping, valves, fittings, and specialties.

G. Connect condensate drain piping to the unit with appropriate trap. Verify that the piping material and installation is in accordance with Division 22 requirements.

H. Connect gas piping to gas-fired heat exchanger according to requirements of Division 22 section "Natural Gas Systems." Provide union with sufficient clearance for burner removal and service

3.3 ADJUSTING, CLEANING, AND PROTECTING

A. Adjust fan for required airflow in accordance with Section “Testing, Adjusting and Balancing for HVAC.” Tighten belts as required for proper operation.

B. Adjust damper linkages for proper damper operation.

C. Clean the entire unit including cabinet interiors just prior to substantial completion to remove foreign material and construction dirt and dust. Vacuum clean fan wheel, fan cabinet, intake plenum cabinet, heat exchange surfaces, cooling/heating coil sections, filter sections, access sections, etc.

3.4 STARTUP

A. Final Checks Before Start-Up: Perform the following operations and checks before start-up:
   1. Remove shipping, blocking, and bracing.
   2. Verify unit is secure on mountings and supporting devices and that connections for piping, ductwork, and electrical are complete. Verify proper thermal overload protection is installed in motors, starters, and disconnects.
   3. Perform cleaning and adjusting specified in this Section.
   4. Disconnect fan drive from motor and verify proper motor rotation direction and verify fan wheel free rotation and smooth bearings operations. Reconnect fan drive system, align belts, and install belt guards.
   5. Lubricate bearings, pulleys, belts, and other moving parts with factory-recommended lubricants.
   6. Comb coil fins for parallel orientation.
   7. Install clean filters. Do not operate air handling unit without pre-filters installed.
   8. Verify manual and automatic volume control, and fire and smoke dampers in connected ductwork systems are in the full-open position.
   9. Disable automatic temperature control operators.

B. Start-Up Services: Provide the services of a factory-authorized service representative to start-up dedicated outdoor air units in accordance with manufacturer's written start-up instructions. Do not operate units without filters installed. Test controls and demonstrate compliance with requirements. Replace damaged or malfunctioning controls and equipment.
   1. Energize motor, verify proper operation of motor, drive system, and fan wheel. Adjust fan to indicated RPM.
      a. Replace fan and motor pulleys as required to achieve design conditions.
      b. Measure and record motor electrical values for voltage and amperage.
      c. Shut unit down and reconnect automatic temperature control operators.
      d. Refer to Division 23 Section "Testing, Adjusting, and Balancing for HVAC" for procedures for system testing, adjusting, and balancing.

3.5 TRAINING

A. General: At a time mutually agreed upon between the Owner and Contractor, provide the services of a factory trained and authorized representative to train Owner's designated personnel for a minimum of two hours on the operation and maintenance of the equipment provided under this section.

B. Content: Training shall include but not be limited to:
   1. Overview of the system and/or equipment as it relates to the facility as a whole.
   2. Operation and maintenance procedures and schedules related to startup and shutdown, troubleshooting, servicing, preventive maintenance and appropriate operator intervention.
   3. Review data included in the operation and maintenance manuals. Refer to Division 1 Section "Operating and Maintenance Data."

C. Certification: Contractor shall submit to the Engineer a certification letter stating that the Owner’s designated representative has been trained as specified herein. Letter shall include date, time, attendees and subject of training. The certification letter shall be signed by the Contractor and the Owner’s representative indicating agreement that the training has been provided.

D. Schedule: Schedule training with Owner with at least 7 days' advance notice.

END OF SECTION 237433

GENERAL FINISH NOTES

1. REFER TO FINISH FLOOR PLANS, REFLECTED CEILING PLANS, ELEVATIONS, AND DETAILS FOR EXTENT OF MULTIPLE FINISHES.
2. DO NOT PAINT NATURAL OR MANUFACTURED STONE, BRICK, GLAZED BLOCK OR ANY OTHER PREFINISHED MATERIALS.
3. DO NOT PAINT ALUMINUM OR OTHER NON-FERROUS METALS THAT ARE PREFINISHED.
4. MATCH VERTICAL FINISH OF ALL INTERIOR GYPSUM BOARD SOFFITS TO HORIZONTAL FINISH AS NOTED ON RCP OR ROOM FINISH SCHEDULE, UNO.
5. PAINT ALL EXPOSED CEILINGS DESIGNATED AS 'OTS' AS INDICATED ON ROOM FINISH SCHEDULE. PAINTING INCLUDES, BUT IS NOT LIMITED TO: EXPOSED STRUCTURE, JOISTS, METAL DECKING, EXISTING TECTUM PANELS, DUCTWORK AND MECHANICAL EQUIPMENT.
6. PAINT ALL EXPOSED STEEL, UNO.
7. PAINT ALL INTERIOR HOLLOW METAL DOORS AND FRAMES TO MATCH ADJACENT WALL, UNO.
8. PAINT OR FINISH THE FOLLOWING ITEMS TO MATCH ADJACENT PAINT OR FINISH:
   a. ELECTRICAL PANELS IN FINISHED ROOMS
   b. GRILLES, LOUVERS ETC. PRIMED OR SPECIFIED TO BE PAINTED
   c. UNFINISHED SPEAKER OUTLET GRILLES
   d. VISIBLE PORTIONS OF DUCTWORK AND MECH EQUIPMENT BEHIND VENTS, GRILLES AND DIFFUSERS
9. ALL GRID TOUCH-UP PAINT NOTED IN ROOM FINISH SCHEDULE IS TO BE TO 3" BELOW GRID HEIGHT, U.N.O.

△2

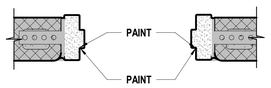
MATERIAL FINISH LEGEND

MATERIAL	ID	KEYNOTE	MANUFACTURER	STYLE/MODEL NO	COLOR/FINISH	COMMENTS
Carpet	C1	09 68 13.A01	Mohawk Group	Side Stripe GT419	963 Heritage	Install Ashlar
Carpet	C1a	09 68 13.A01	Patcraft	Speak Your Language Studio	Speak in Color Black 00500	Match Existing Install
Carpet	C1b	09 68 13.A01	Tarkett	Crayon 01957	Precious Metal 40810	Match Existing Install
Carpet	C1C	09 68 13.A01	Salvaged Demo Stock			Match Existing Install
Ceiling	CLG1	09 51 13.A01	ARMSTRONG	1755 FINE FISSURED	WHITE (WH), 24X48	
Concrete Finish	CON1	03 30 00.A21			CLEAR SEAL CONCRETE FINISH	
Fabric	F1	10 21 23.A01	MAHARAM	CARRY 2, 511518	006 INHALE	
Floor (Poured) Topping	FT1	09 67 23.A01	DESCO	CREMONA TG	33% SW7653, 32% SW7018, 35%SW7625	INTEGRAL BASE
Floor (Poured) Topping	FT2	09 67 23.A01	DESCO	CEREMONA TG	MATCH EXISTING	INTEGRAL BASE
High Performance Coating	HP1	09 96 00	SHERWIN WILLIAMS		SW 7636 ORIGAMI WHITE	
Paint	P1	09 91 23	SHERWIN WILLIAMS		SW 7636 ORIGAMI WHITE	
Paint	P1A	09 91 23	SHERWIN WILLIAMS		MATCH EXISTING COLOR	
Paint	P2	09 91 23	SHERWIN WILLIAMS		SW 6246 NORTH STAR	
Plastic Laminate	PL2	12 30 00	WILSONART	5016-38	FRENCH LINEN	
Resilient Base & Accessories	RB1	09 65 13.A01	ROPPE	700 SERIES 4" BASE	100 BLACK	
Resilient Flooring	RF1	09 65 19.A01	INTERFACE	BRUSHED LINES	A01604 GALENA	INSTALL ASHLAR
VCT	RT1	09 65 19.A01	ARMSTRONG	VCT, 12x12	51874, GRAYED BLUE	Match Existing Install, Install per manufacturer recommendations and standards
Simulated Stone	SS1	12 36 66	CORIAN	SOLID SURFACE	EVEREST	
Tile	T1	09 30 00.A01	DALTILE	COLORWHEEL 6X6	ARCTIC WHITE 0790	
Tile	T2	09 30 00.A01	DALTILE	COLORWHEEL MOSIACS	CURRANT HERRINGBONE SH17, 1X3	
Trim	TR1	09 30 00.A04	SCHLUTER	SCHIENE		
Trim	TR2	06 40 23.A24	Fry Reglet	MILLWORK TRIM - L CHANNEL	3/4", MWCL75, ANODIZED ALUMINUM	
Window Film	WF1	08 80 00.A93	3M	Matte SH2MAOW 1250, Opaque White	OPAQUE WHITE	

ROOM FINISH SCHEDULE

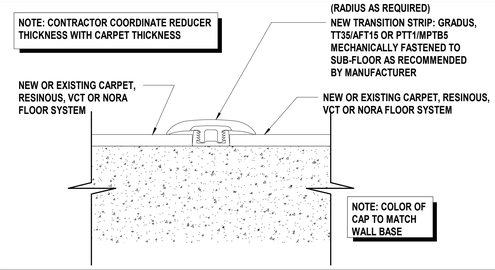
ROOM		FLOOR		WALLS				CEILING	
NO	Name	Finish	Base	North	East	South	West	Finish	Finish Remarks
A114	RESOURCE	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
A116	RESOURCE	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
A216	CLASSROOM	C1b	RB1	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
A218	CLASSROOM	C1b	RB1	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
B112	TEACHER'S LOUNGE	RE E5/A401B	RB1	EXIST P1A @ GRID TOUCH-UP	P1A	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
B112a	TLT	FT1	FT1	HP1	T1/T2	HP1	HP1	CLG1	
B113	GIRL'S	FT1	FT1	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	RE ELEV	CLG1	
B200	CORRIDOR	EXIST	EXIST	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	CLG1	PAINT SCOPE IS TOUCHUP ONLY AT CEILING GRID TRANSITION
B201	Reception	C1	RB1	P1	P1	P1	P1	CLG1	
B202	Office	C1	RB1	P1	P1	P1	P1	CLG1	
B203	Office	C1	RB1	P1	P1	P1	P1	CLG1	
B204	Office	C1	RB1	P1	P1	P1	P1		
B205	Meeting	RF1	RB1	P1	P1	P1	P1	CLG1	
B206	Nurse	FT1	FT1	P2	P2	P2	P2	CLG1	
B206a	RR	FT1	FT1	HP1	RE ELEV	HP1	HP1	CLG1	
B208	RR	FT1	FT1	HP1	HP1	HP1	RE ELEV	CLG1	
B209	Lactation	FT1	FT1	HP1	HP1	HP1	HP1	CLG1	
B210	BOY'S	FT1	FT1	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	CLG1	
B214	GIRL'S	FT1	FT1	RE ELEV	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	T1 7'-0"/HP1 ABOVE	CLG1	
B215	CLASSROOM	C1C	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
B221a	Storage	CON1	RB1	P1	P1	P1	P1	OTS	
C104	CLASSROOM	C1a	RB1	P1A	P1A	P1A	P1A	RE RCP	ENTIRE ROOM TO RECIEVE NEW FLOOR, BASE AND PAINT
C105	CONF.	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C106	CLASSROOM	C1C	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C107	CLASSROOM	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C108	CLASSROOM	C1a	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C109	RESOURCE	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C109a	RESOURCE	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C110	RESOURCE	C1a	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C112	CORRIDOR	EXIST	EXIST	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C204	CLASSROOM	C1a	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C205	CLASSROOM	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C206	RESOURCE	C1a	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C207	CLASSROOM	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C208	CLASSROOM	C1a	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C209	CLASSROOM	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C210	CLASSROOM	RT1	RB1	P1A	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C211	CLASSROOM	C1C	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK
C213	RESOURCE	C1a	RB1	EXIST P1A @ GRID TOUCH-UP	EXIST P1A @ GRID TOUCH-UP	P1A	EXIST P1A @ GRID TOUCH-UP	RE RCP	RE: G1/A403 FOR EXTENTS OF FLOORING & BASE WORK

3



NOTE: PAINT TO TRANSITION AT DOOR THROAT

A1 Scale 1 1/2" = 1'-0" — HM Jamb Frame Finish Where Noted



A4 Scale 12" = 1'-0" — Flooring Reducer Strip Detail

hollis + miller architects

we design the future®

1828 Walnut Street Suite 922
Kansas City, MO 64108
t 816.442.7700

115 Wilcox Street Suite 210
Castle Rock, CO 80104
t 720.949.1689

HOLLISANDMILLER.COM

Hollis + Miller Architects
Missouri State Certificate of Authority
Architecture # 0000161

Bob D Campbell
Structural Engineers
State Certificate of Authority #00042
4338 Belleview Ave
Kansas City, MO 64111
816.531.4144 phone

Henderson Engineers
Mechanical/Electrical Engineers
Missouri #e-556D
1801 Main, Suite 300
Kansas City, MO 64108
816.663.8700 phone

100% CONSTRUCTION DOCUMENTS

Ridgeview Elementary School
Liberty Public Schools
701 Thornton Street
Liberty, MO 64068

REVISIONS:

#	Description	Date
2	Addendum 2	12.15.23
3	Addendum 3	12.21.23

STATE OF MISSOURI
KEVIN E. NELSON
A-2019015618
ARCHITECT

DECEMBER 21, 2023
Kevin E. Nelson
A-2019015618

JOB NO: 23026
DRAWN BY: NR
CHECKED BY: JB
DATE: 11.22.2023

A681

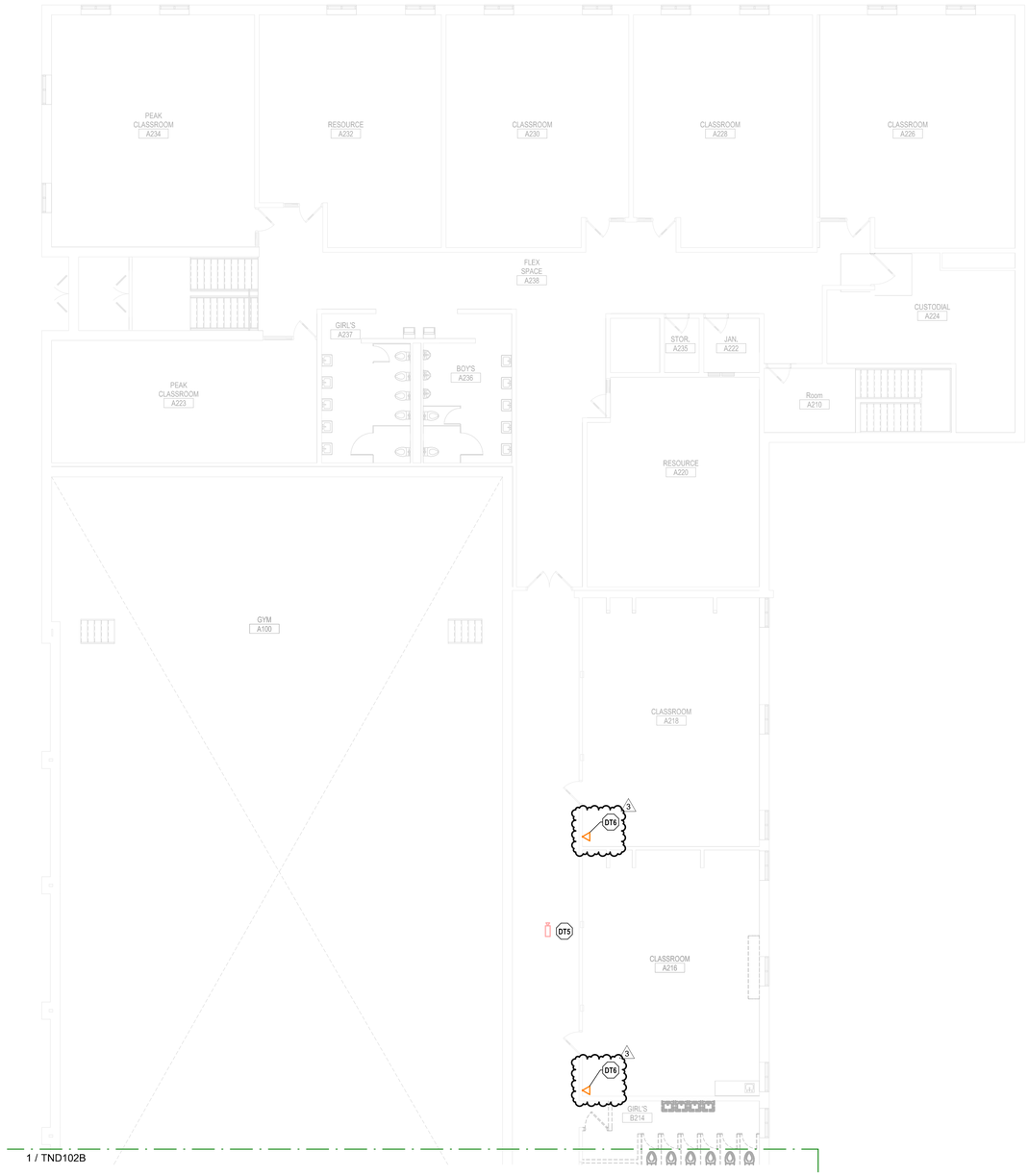
12/21/2023 10:35:58 AM

MATERIAL FINISH LEGEND AND ROOM SCHEDULE

TECHNOLOGY DEMOLITION PLAN NOTES:

DT5 EXISTING CAMERA SHALL BE REMOVED AND PROTECTED PRIOR TO EXECUTING NEW WORK AND REINSTALLED IN SAME LOCATION DURING NEW WORK.

DT6 EXISTING CABLING TO REFEED NEW DATA DROP IF SERVICE LOOP ALLOWS, REFER TO SHEET TN102B FOR APPLICABLE DATA DROP. IF EXISTING CABLE CANNOT BE UTILIZED, COIL UP CABLING ABOVE CEILING FOR REUSE LATER.



1 / TND102B

1 TECHNOLOGY LEVEL 2 DEMO PLAN - AREA A
1/8" = 1'-0"

hollis + miller architects

we design the future®

1828 Walnut Street Suite 922
Kansas City, MO 64108
t 816.442.7700

115 Wilcox Street Suite 210
Castle Rock, CO 80104
t 720.949.1689

HOLLISANDMILLER.COM

Hollis + Miller Architects
Missouri State Certificate of Authority
Architecture # 0003161
Structure # 2006031333

Henderson Engineers
Mechanical/Electrical Engineers
Missouri #e-556D
1801 Main, Suite 300
Kansas City, MO 64108
816.663.8700 phone

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 **FAX** 913.742.5001
WWW.HENDERSONENGINEERS.COM
2350004060
MO, CORPORATE NO: E-556D
EXPIRES 10/31/2024

100% CONSTRUCTION DOCUMENTS

Ridgeview Elementary School
Liberty Public Schools
701 Thornton Street
Liberty, MO 64068

REVISIONS:

#	Description	Date
1	Addendum 1	12.08.23
2	Addendum 2	12.15.23
3	Addendum 3	12.22.23

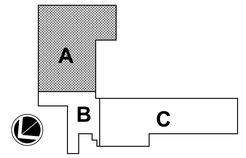
STATE OF MISSOURI
DOUGLAS M. EVERHART
NUMBER PE-2019007648
PROFESSIONAL ENGINEER

12/20/2023

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

JOB NO: 23026
DRAWN BY: GB
CHECKED BY: RR,LF
DATE: 12.22.2023

KEY PLAN



TND102A

TECHNOLOGY LEVEL 2 DEMO PLAN - AREA A

12/20/2023 12:51:27 PM
DOUGLAS M. EVERHART

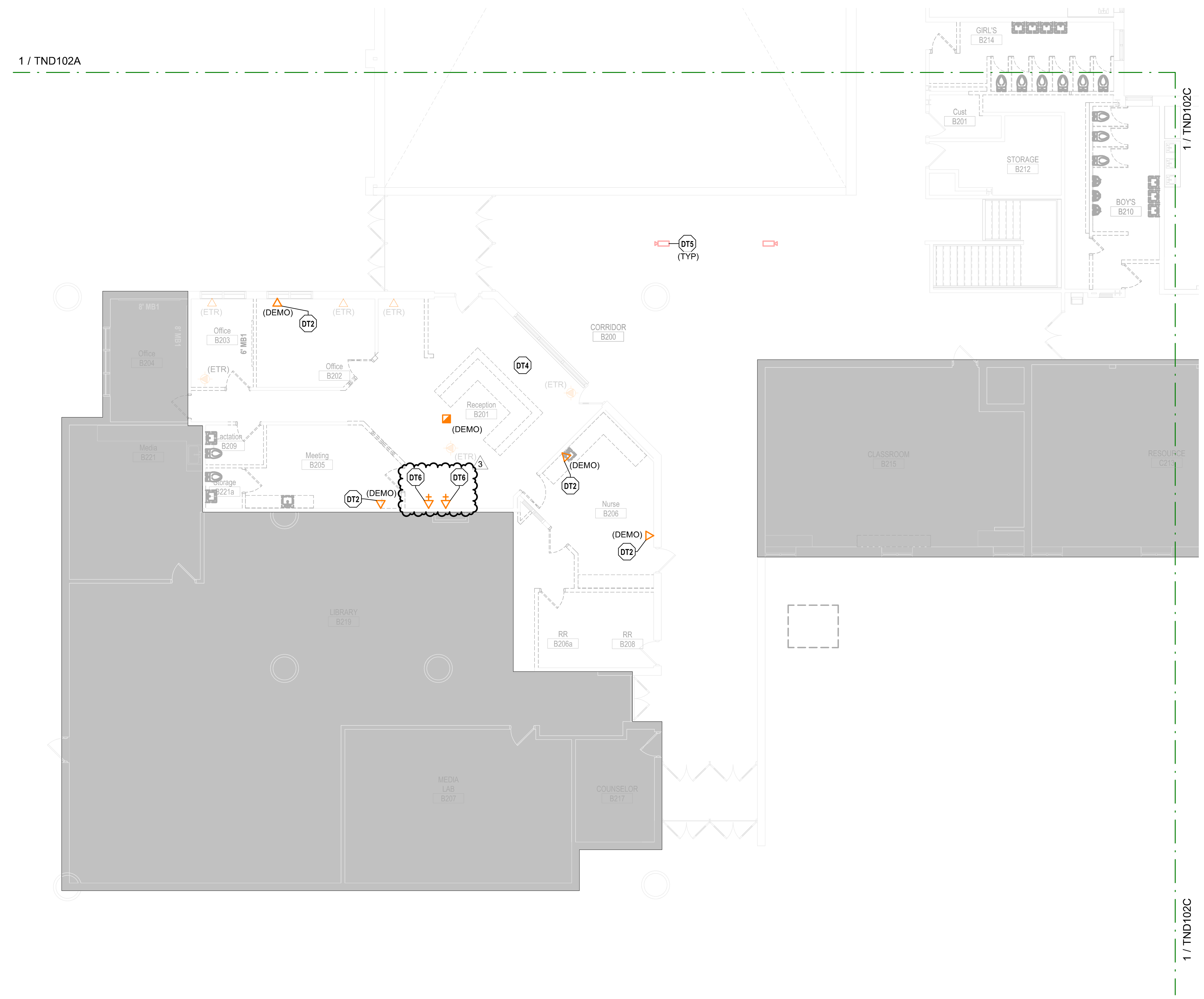
TECHNOLOGY DEMOLITION PLAN NOTES:

DT2 COIL UP CABLING ABOVE CEILING FOR REUSE LATER.

DT4 EXISTING WIRELESS PANIC DEVICE AND STROBE SHALL BE REMOVED AND PROTECTED PRIOR TO EXECUTING NEW WORK AND REINSTALLED IN SAME LOCATION DURING NEW WORK.

DT5 EXISTING CAMERA SHALL BE REMOVED AND PROTECTED PRIOR TO EXECUTING NEW WORK AND REINSTALLED IN SAME LOCATION DURING NEW WORK.

DT6 EXISTING CABLING TO REFEED NEW DATA DROP IF SERVICE LOOP ALLOWS. REFER TO SHEET TN102B FOR APPLICABLE DATA DROP. IF EXISTING CABLE CANNOT BE UTILIZED, COIL UP CABLING ABOVE CEILING FOR REUSE LATER. (3)



1 TECHNOLOGY LEVEL 2 DEMO PLAN - AREA B
1/8" = 1'-0"

we design the future®

1828 Walnut Street Suite 922
Kansas City, MO 64108
T 816.442.7700

115 Wilcox Street Suite 210
Castle Rock, CO 80104
T 720.949.1689

HOLLISANDMILLER.COM

hollis + miller architects®

Hollis + Miller Architects
Missouri State Certificate of Authority
Architecture # 0000161
Structure # 2006031333

Henderson Engineers
Mechanical/Electrical Engineers
Missouri #e-556D
1801 Main, Suite 300
Kansas City, MO 64108
816.663.8700 phone

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 **FAX** 913.742.5001
WWW.HENDERSONENGINEERS.COM
2350004060
MO. CORPORATE NO: E-556D
EXPIRES 10/31/2024

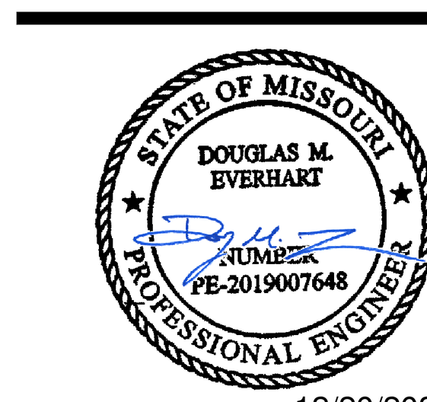
100% CONSTRUCTION DOCUMENTS

Ridgeview Elementary School
Liberty Public Schools

701 Thornton Street
Liberty, MO 64068

REVISIONS:

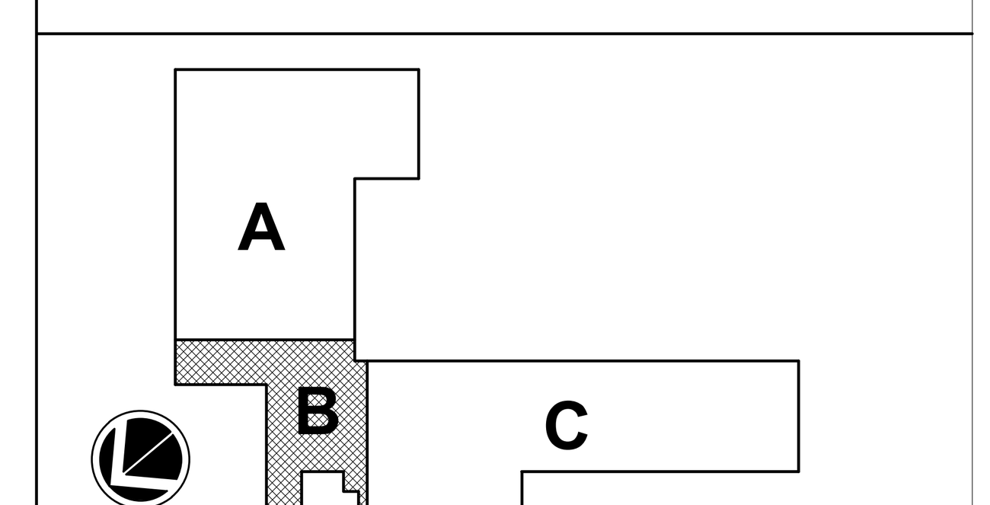
#	Description	Date
1	Addendum 1	12.08.23
3	Addendum 3	12.22.23



12/20/2023

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

KEY PLAN



JOB NO: 23026
DRAWN BY: GB
CHECKED BY: RR,LF
DATE: 12.22.2023

TND102B

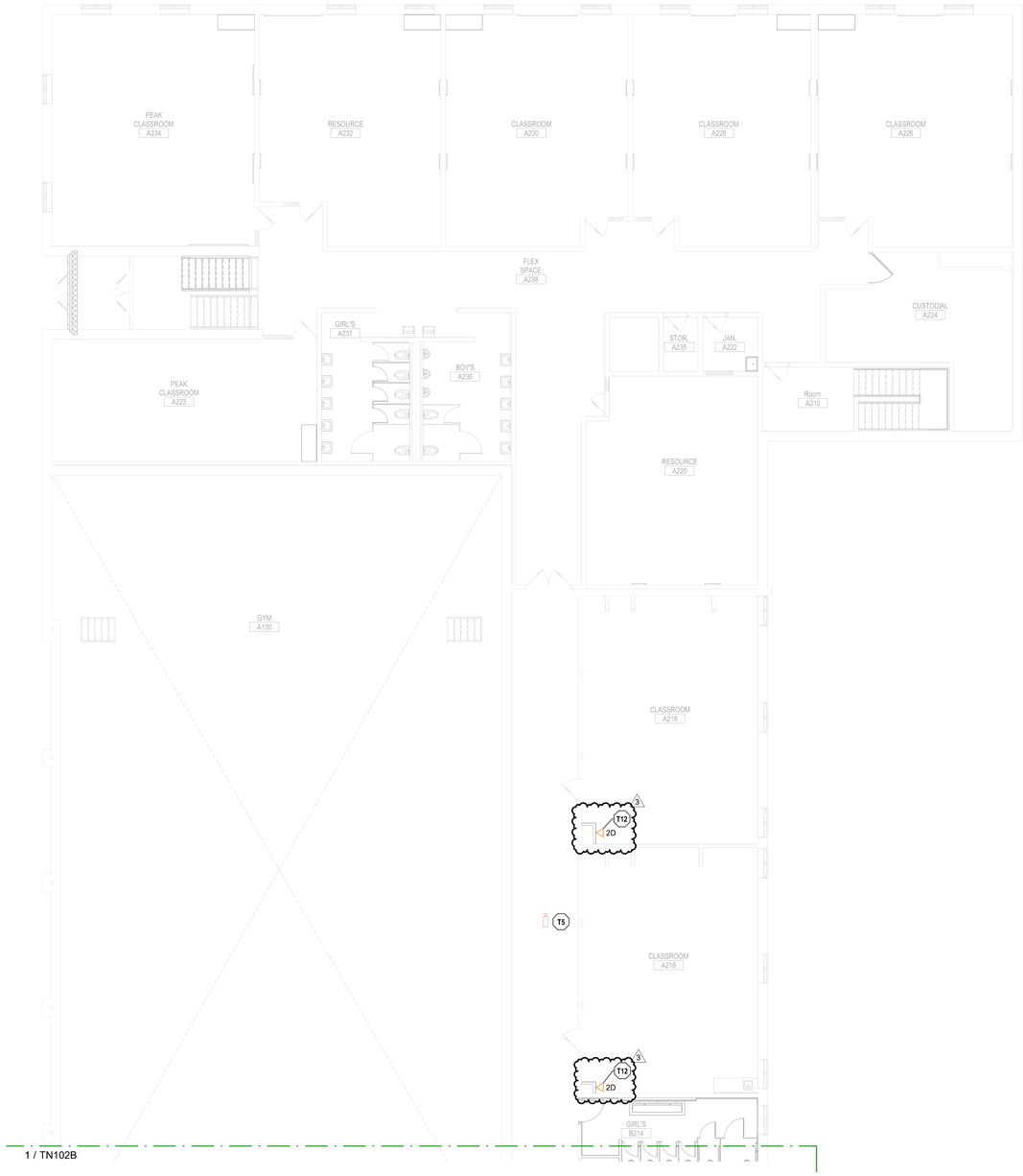
TECHNOLOGY LEVEL 2 DEMO PLAN - AREA B

12/20/2023 12:51:41 PM
DOUGLAS M. EVERHART

TECHNOLOGY PLAN NOTES:

T5 REINSTALL CAMERA

T12 RELOCATED DATA DEVICE. CONFIRM SERVICE LOOP FROM EXISTING DATA DROP NEARBY IS VIABLE TO FEED NEW DEVICE. IF NOT, PROVIDE NEW CABLING.



1 TECHNOLOGY LEVEL 2 PLAN - AREA A
1/8" = 1'-0"

hollis + miller architects

we design the future®

1828 Walnut Street Suite 922
Kansas City, MO 64108
t 816.442.7700

115 Wilcox Street Suite 210
Castle Rock, CO 80104
t 720.949.1689

HOLLISANDMILLER.COM

Hollis + Miller Architects
Missouri State Certificate of Authority
Architecture # 0003161
Structure # 2006031333

Henderson Engineers
Mechanical/Electrical Engineers
Missouri #e-556D
1801 Main, Suite 300
Kansas City, MO 64108
816.663.8700 phone

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 **FAX** 913.742.5001
WWW.HENDERSONENGINEERS.COM
2350004060
MO. CORPORATE NO: E-556D
EXPIRES 10/31/2024

100% CONSTRUCTION DOCUMENTS

Ridgeview Elementary School
Liberty Public Schools
701 Thornton Street
Liberty, MO 64068

REVISIONS:

#	Description	Date
1	Addendum 1	12.08.23
2	Addendum 2	12.15.23
3	Addendum 3	12.22.23

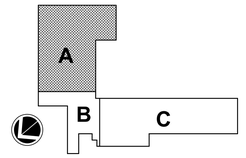
STATE OF MISSOURI
DOUGLAS M. EVERHART
NUMBER PE-2019007648
PROFESSIONAL ENGINEER

12/20/2023

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

JOB NO: 23026
DRAWN BY: GB
CHECKED BY: RR,LF
DATE: 12.22.2023

KEY PLAN



TN102A

TECHNOLOGY LEVEL 2 PLAN - AREA A

12/20/2023 12:56:51 PM
DOUGLAS M. EVERHART

TECHNOLOGY PLAN NOTES:

T1 PROTECT AND TEMPORARILY PULL BACK OUT OF CONSTRUCTION AREA ALL EXISTING LOW VOLTAGE CABLING SUPPORTED FROM EXISTING UPPER CORRIDOR CEILING TO BE DEMOLISHED. (REFER TO ARCHITECTURAL DEMO PLANS FOR MORE INFORMATION.) REINSTALL ALL REMOVED CABLES AND PROVIDE NEW SUPPORT SYSTEM FROM STRUCTURE AS NEEDED. TEST ALL LOW VOLTAGE CABLING REINSTALLED IN THIS PROJECT TO ENSURE PROPER OPERATION.

T2 PROVIDE 48-PORT CATEGORY 6 AND CATEGORY 6A PATCH PANELS AS NECESSARY. PROVIDE QUANTITY AS REQUIRED TO SUPPORT ALL CATEGORY 6 AND CATEGORY 6A DATA OUTLETS SERVED BY TELECOM ROOM PLUS SPARES. REFER TO DIVISION 27 SPECIFICATIONS FOR MORE INFORMATION.

T3 REINSTALL WIRELESS PANIC DEVICE AND STROBE.

T4 INSTALL REMOTE OPEN TO NEW FURNITURE, COORDINATE REQUIREMENTS WITH FURNITURE PROVIDER.

T5 REINSTALL CAMERA.

T6 NO CAPACITY FOR NEW CARD READER ON EXISTING ACCESS CONTROL PANELS. PROVIDE MR52 BOARD TO ENCLOSURE WITH AVAILABLE SPACE.

T7 PROTECT EXISTING RACKS DURING CONSTRUCTION.

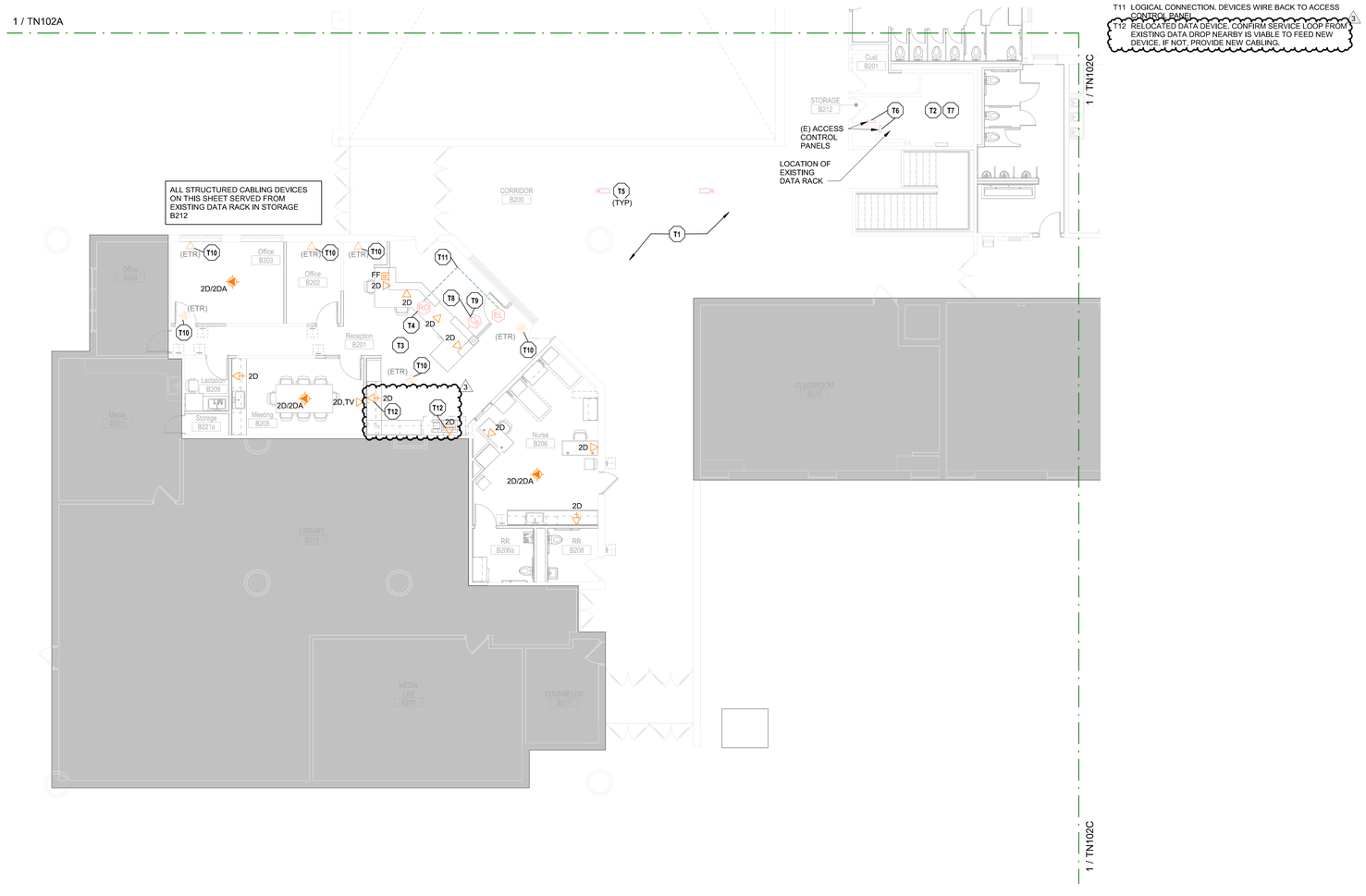
T8 PROVIDE WINDY CITY WIRE 4461030 (OR APPROVED EQUAL) FROM NEW CARD READER TO ACCESS CONTROL PANEL IN STORAGE B212.

T9 PROVIDE NEW CARD READER MANUFACTURED BY HID AND CAPABLE OF READING THE HID PROXIMITY PROTOCOL. REFER TO DIVISION 28 SPECIFICATIONS FOR MORE INFORMATION.

T10 EXISTING TO REMAIN DEVICE. NEW CASEWORK TO BE INSTALLED IN THIS LOCATION. COORDINATE WITH CASEWORK INSTALLER AND OWNER TO RAISE OR LOWER DEVICE SO THAT DEVICE REMAINS ACCESSIBLE.

T11 LOGICAL CONNECTION. DEVICES WIRE BACK TO ACCESS CONTROL PANEL.

T12 RELOCATED DATA DEVICE. CONFIRM SERVICE LOOP FROM EXISTING DATA DROP NEARBY IS VIABLE TO FEED NEW DEVICE. IF NOT, PROVIDE NEW CABLING.



1 TECHNOLOGY LEVEL 2 PLAN - AREA B
1/8" = 1'-0"

hollis + miller architects
we design the future®
1828 Walnut Street Suite 922
Kansas City, MO 64108
t 816.442.7700
115 Wilcox Street Suite 210
Castle Rock, CO 80104
t 720.949.1689
HOLLISANDMILLER.COM
Hollis + Miller Architects
Missouri State Certificate of Authority
Architecture # 000516
Structure # 2006031333

Henderson Engineers
Mechanical/Electrical Engineers
Missouri #e-556D
1801 Main, Suite 300
Kansas City, MO 64108
816.663.8700 phone

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2350004060
MO. CORPORATE NO: E-556D
EXPIRES 10/31/2024

100% CONSTRUCTION DOCUMENTS

Ridgeview Elementary School
Liberty Public Schools
701 Thornton Street
Liberty, MO 64068

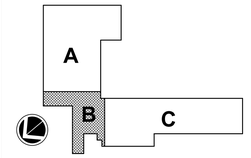
REVISIONS:

#	Description	Date
1	Addendum 1	12.08.23
2	Addendum 2	12.15.23
3	Addendum 3	12.22.23

STATE OF MISSOURI
DOUGLAS M. EVERHART
NUMBER PE-2019007648
PROFESSIONAL ENGINEER
12/20/2023

DOUGLAS M. EVERHART
LICENSE # PE-2019007648

KEY PLAN



JOB NO: 23026
DRAWN BY: GB
CHECKED BY: RR,LF
DATE: 12.22.2023

TN102B

TECHNOLOGY LEVEL 2 PLAN - AREA B

12/20/2023 12:57:01 PM
DOUGLAS M. EVERHART