VICINITY MAP



SHEET INDEX



DRAFTING SYMBOLS



ELEVATION TAG

Room Name XXX

ROOM TAG

XXX

DOOR TAG

SHEET KEYNOTES





Drawing Title

3/4" = 1' - 0"

PARTITION TAG

- Drawing Scale Drawing Scale



— XXX

Project is intended to create a new art classroom by combining and renovating two existing administrative spaces within the school.

Scope of work ito includes limited demolition combining two admin rooms (300B and 300C) into a new art classroom. Project includes demolition of flooring, replacement of countertops, casework and plumbing and partial demolition of ceiling and replacement of ceilings. New LED lighting will be installed.

CODE USED:

2015 International Building Code (IBC) Accessibility: ICC A117.1-2009 2015 International Existing Building Code (IEBC) 2015 International Mechanical Code (IMC) 2015 International Plumbing Code (IPC) 2015 International Energy Conservation Code (IECC) 2015 International Fuel Gas Code (IFGC) 2017 National Electrical Code (NEC) 2015 International Fire Code *All Chapters, Sections, and Tables referenced below are for the IBC, unless noted otherwise

CODE INFO: Building Owner:

Area of Work:

Alteration Level:

Anchor Bolt

AB

AD AFF Alum Approx Arch Asph

Bd Bldg Blk Blkg BM BR BR

Cab CB CC Cem CI CJ

Clg Clkg CMU Col Conc Constr Cont Cont Cpt CT Cntr Ctr

Dbl Dept DF Dtl Dia Dim Pt Dim Pt DS DO Dr DVr DS Dwr DS Dwg

EJ Elec Emer Encl EP Equip EWC Exist Exp Ext EW

Building Occupancy: Building Area: Building Type: Number of Stories: Building Height: Fire Rated Assemblies: Fire Protection:

Varies (no change) No Change Sprinkled 760 SF.

FBO FBT FIO FF FA FACP FD FON FE FEC FIN FIC FIN Fluor FOC FOS Ft

Ftg Furr GA Galv GL Gnd GR GVP GWB GC

HB HC Hdwd Hdwr HM Horiz Hgt HWH

IBO

INS

Jan JT

Kit

Lab Lam LS

Lt Lwr LW

Mas Matl Max Mech Mtl Mfr MH Misc MO

Ν

NIC # NO Nom NTS

Acoustic Ceiling Area Drain Above Finish Floor Aluminum Approximate Architectural Ashpalt Board Building Block Blocking Bench mark Bumper Rail Bottom Cabinet Catch Basin Center to Center Cement Cast Iron Control Joint Ceiling Caulking Concrete Mason Column Concrete Construction Construction Construction Continuous Carpet Ceramic Tile Counter Center Double Department Drinking Fountai Detail Diameter Dimension Point Dispenser Down Door Opening Door Drawer Downspout Drawing East Each Expansion Joint Electrical Emergency Enclosure Electrical Panle Equipment Electric Water Cooler Existing Expansion Exterior Each Way



SCOPE OF WORK

CODE ANALYSIS

Poudre School District E - Education 86,760 GSF +/-Type II-B 1 story

Level 2 - Per chapter 5, section 503 - 2015 IEBC

ABBREVIATIONS

| Furnish by Other | OAL | Overall length |
|-------------------------------|-------|--------------------------------|
| Furnish by Tenant | Obs | Obscure |
| Furnish and Install by others | oc | On Center |
| Finish Floor | OD | Outside Diameter |
| Fire Alarm | OF-OI | Owner Furnish/Owner Install |
| Fire Alarm Control Panel | OF-CI | Owner Furnish/Contracto Instal |
| Floor Drain | OFF | Office |
| Foundation | Opng | Opening |
| Fire Extingquisher | Opp | Opposite |
| Fire extingquisher cabinet | | |
| Fire hose cabinet | Ptd | Painted |
| Finish | PC | Precast |
| Floor | Plam | Plastic Laminate |
| Flashing | Plas | Plaster |
| Fluorescent | Plywd | Plywood |
| Face of Conctrete | PR | Pair |
| Face of finish | PT | Pressure Treated |
| Face of Studs | PTD | Paper Towel Dispenser |
| Foot or feet | PTN | Partition |
| Footing | PTM | Paint to match |
| Furring | | |
| Gauge | QT | Quarry Tile |
| Galvanized | _ | |
| Glass | R | Riser |
| Ground | Rad | Radius |
| Grade | RD | Roof Ddrain |
| Gypsum | Ref | Refrigerator |
| Gypsum Wall Board | Reinf | Reinforced |
| General Contractor | Req | Required |
| | Resil | Resilient |
| Hose Bib | RM | Room |
| Hollow Core | RO | Rough Opening |
| Hardwood | RDW | Redwood |
| Hardware | Rīg | Roofing |
| | e | Couth |
| Horizontal | 5 | South Solid Core |
| Height Het weter bester | Sc | Solid Core |
| Hot water heater | Sched | Schedule |
| Installation by others | Soot | Dowp dispenser |
| Installation by contractor | Sect | Sections |
| Installation by contractor | Shr | Shoet |
| Installation | SV | Shoot Vinyl |
| Interior | Sim | Similar |
| Interior | SND | Sanitary Nankin Dispenser |
| lanitor | Snec | Specification |
| loint | Sa | Square |
| Joint | 55 | Stainless Steel |
| Kithen | STA | Station |
| Rahen | Std | Standard |
| Laboratory | Sti | Steel |
| Laminate | Stor | Storage |
| Landscape | Strl | Structural |
| Light | Susp | Suspended |
| Lower | Svm | Similar or Symmetrical |
| Lightweight | S&V | Stain and Varnish |
| | STM | Stain to match |
| Masonry | | |
| Material | тв | Towel Bar |
| Maximum | TOC | Top of Concrete |
| Mechanical | TOCh | Top of Curb |
| Metal | Tel | Telephone |
| Manufacturer | Terr | Terrazzo |
| Manhole | TH | Threshold |
| Miscellaneous | | |
| Masonry Opening | Vol | Volume |
| 2 - F - G | - | |
| North | Wd | Wood |
| Not in contract | Wgt | Weight |
| Number | | U |
| Number | | |
| Nominal | | |
| Not to scale | | |
| | | |



Project Issuance

Permit

08-17-2021



Lesher Art Room

1400 Stover Street Fort Collins, CO 80524

> Permit 08-17-2021



General Requirements

- Refer to the Poudre School District Tech Specs available from the Owner for all specification divisions. The General Contractor is responsible for checking all contract documents, field conditions and dimensions for accuracy and confirming that the work is buildable as shown before proceeding with construction. Upon finding any discrepancies the Architect shall be notified in writing prior to commencing construction. The General contractor shall be responsible for notifying the Architect immediately should any discrepancies
- be found in the drawings and specifications. All users of the drawings contained within shall review the general notes completely, it is the user's responsibility to know and adhere to these requirements.
- Drawings and specifications are separated into disciplines for the convenience of the Architect and contractor. 5. The separations used within the following documents are used only for convenience and reference purposes
- and in no way do they define or limit the scope or intent of any part of the drawings and specifications. Where discrepancies exist between or within standards, specifications, and drawings, the more stringent or 6. higher quality requirements shall apply. The precedence of the Construction Documents is in the following sequence.

Addenda and modifications to the drawings and specifications take precedence over the Α. original construction documents.

- Should there be a conflict within the specifications or on the drawings, the Architects shall В. decide which stipulation will provide the best installation and his decision shall be final. Should a conflict arise between the drawings and the specifications, the written specifications C.
- shall have precedence over the drawings. D. In the drawings, the precedence shall be drawings of a larger scale over those of a smaller scale, figured dimensions over scaled dimensions, and noted materials over graphic
- indications. Typical (Typ.) means for all similar conditions throughout the project unless noted otherwise. Every effort has been made to develop and coordinate the following documents between all disciplines to
- 8. define the work in the most logical locations to reduce redundant information and conflicts. Scope of work in defined throughout the set of documents and specifications. The user must review and understand the construction documents in their entirety to define a scope of work.
- 9. All trades to comply with all applicable local, state, health, safety codes, ordinance, requirements etc. and provide acceptable materials and workmanship to current industry standards. 10. Contractor is solely and completely responsible for conditions of the job site, including safety, protection of property and the like during the performance of the work.
- Provide facing at all thermal and sound insulation materials where exposed in a return air plenum as required. 11. Drawings and specifications shall be considered complementary and items located in any locations shall be 12. considered as a requirement for construction. In the event of conflicting or inconsistent information the contractor shall identify the conflict and request written clarification from the Architect.
- 13. Mechanical, Electrical and Plumbing drawings are diagrammatic and the General Contractor shall fully coordinate the locations of all equipment with the Architectural and Structural drawings including but not limited to shafts, chases, penetrations, etc.
- 14. The contractor is responsible for visiting the site and becoming familiar with site access, storage opportunities, staging space, and other like means & methods prior to providing completed bid.
- 15. Contractors and all sub-contractors shall field verify all dimensions prior to fabrication and/or ordering of materials.
- 16. Prior to beginning any construction or mobilizing construction activities the contractor shall wall through, inspect and document all existing conditions in place. The contractor shall be responsible for all repairs and replacement of items damaged during construction.
- 17. Review the general notes on all drawing sheets for information related to the specific plans and details on those sheets. 18. At locations stated to "Align" the location of different components of construction shall be constructed to
- provide a flush finish surface. 19. Where labeled "Verify" the General Contractor shall review the identified item in the field prior to proceeding with work, fabrication, or ordering of materials.

Drawings and Documents

Do not scale drawings. Dimensions govern and large scale drawings govern over lesser scale drawings. All dimensions are to: unless noted otherwise (UNO)

Face of Masonry or concrete Α.

- Face of stud Exterior face of sheathing on exterior walls only
- D. Face of mullion
- Dimensions indicated clear (CLR) are to finish face and should be held.

The General Contractor shall be responsible for reviewing all field conditions and dimensions for accuracy. Where discrepancies are discovered notify the Architect prior to proceeding with any work. All doors shall be located 4" off adjacent CMU, wood or metal stud wall unless dimensioned otherwise on the plan

Blocking/Backing

5.

2

3.

2.

The GC is responsible to coordinating all locations that require blocking/backing for proper installation. FR blocking only.

Refer to code review and construction type prior to installation of wood blocking/backing. Items that require blocking/backing shall include but not limited to ADA grab bars, toilet & sink accessories, shleving, casework, menu boards, fixtures, art, etc.

Permits
The Owner shall be responsible for obtaining and paying for all the required permits. The General Contractor shall be responsible for all inspections and third party testing required by local jurisdictions and/or building department.

Shop Drawings

The General Contractor shall provide the Architect with a list of all anticipated shop drawings for review by the Architect and determination of required review and approvals. Shop drawings shall clearly represent the items and/or materials with items proposed clearly and completely identified for review.

The General Contractor shall review shop drawings of shop fabricated items, building materials with specific warrantee requirements, and other shop drawings identified in approved list provided to the Architect prior to furnishing to the Architect. Shop drawings shall be submitted to the Architect for review in electronic PDF format within a single combined file.

Product substitution

1. Submission of a substitution request by the contractor shall be submitted to the Architect in written form along with product specifications marked and/or highlighted up with alternative material(s) being proposed of equal or higher quality.

Contractor Representation: By making Request for Substitution, the contractor represents it has investigated proposed product and has determined that it is equal to or superior in all respects to specified product. The contractor also agrees to provide same warranty for substitution as for specified product, and, if substitutions are accepted, Contractor will coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects, and that contractor waives claims for additional costs related to substitution which may later become apparent. By making Substitution Request the contractor represents that, if substitution and bid are accepted, and If substituted products do not meet or exceed above requirements, whether before, during, or after incorporation into Work, Contractor shall, at no additional cost to Owner, replace substituted products with products originally specified.

> General Notes / 12" = 1'-0"

CASEWORK Division 6 - See Poudre Tech Specs

- 2.01 Manufacturers
- 1. Charles Moffet Cabinet Makers
- 2. Danish Craftsmen
- 3. John Murphy Millworks 4. LA Woodworks
- 5. LSI Corporation of America
- 6. Sidney Millwork.
- 7. Stevens Cabinet Company 8. TMI Systems Design
- 9. Woodmasters, LLC
- 10. Others as approved

Refer to Poudre School District Tech Specs Division 6 Woods and Plastics for remainder of specs.

<u>PAINTING</u>

- Approved Manufacturers:
- Diamond Vogel Approved equal
- i. Concrete Block Two finish coats over an undercoat and a filled surface.
- a. Block Filler: High performance latex-based block filler applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness not less than 5.0 mils. Apply in two coats to permit identification and correction of CMU surface irregularities, pinholes not filled and the like after the first coat.
- 1. Prime all un-primed / bare block surfaces with BF-1515 Dic Pro Block Filler b. First and Second Coats: InteriorZero Plus Semi-Gloss paint DS-1665 (Color: Match existing) for all painted surfaces in the kitchen areas.
- ii Gypsum Board: a. Primer: White, interior, latex-based primer, total dry film thickness not less than 1.2 mils.
- 1. DU-1507 Pro Max Primer b. First and Second Coats: Interior Zero Plus Semi-Gloss paint. (Color: By Owner).

1. FS SS-W-40 Rubber; top set coved:

- A. R.C. Musson Rubber Company. B. Roppe Rubber Corporation.
- C. Burke Industries.
- D. Johnsonite.
- E. Approved Equal. 2. Height: 4 inch or to match existing
- 3. Thickness: 0.125 thick.
- 4. Finish: Matte.
- 5. Length: 4 foot sections.
- 6. Colors: Match existing building standard. 7. 1/8 inch thickness x 4 inches high.
- 9. Use topset cove base at all resilient flooring and carpeted locations.
- 10. Use solid rubber Roppe base. No vinyl base allowed.
- 11. Carpet base considered at certain locations.
- 13. INSTALLATION
- A. Fit joints tight, straight and vertical. Maintain minimum measurement of 1 foot 6 inches between joints. B. Miter internal corners. External corners shall be job formed - no joints within 2 feet of corner edge. C. Install base on solid backing. Bond tight to wall and floor surfaces.
- D. Scribe and fit to protruding door frames and other interruptions.

| ARCHITECTS | 226 Remington Unit #3 Fort Collins, CO 80524 Phone: 970/224-0630 www.r4architects.com | | |
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| In Association with: Pouder School Distric 2445 Laporte Avenue Fort Collins, CO 80521 Phone: (970) 490-3465 Contact: Grey Gustafson Email: jgarretson@psdschools. | : t Owner | | |
| TBD Address City, State, Zip Phone: # Contact: - Email: - | General Contractor | | |
| Larsen Structural Des320 Maple St., Suite 120Fort Collins, CO 80521Phone: (970) 568-3355Contact: Eric RichardsEmail: eric@larsensd.comIntegrated Mechanical223 Linden St. Suite 204Fort Collins, CO 80524Phone: (970)556-0570Contact: Josh Miller | Ign Structural Engineer | | |
| Email: Josh-M@int-mech.com | | | |
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| Issued No. Descri 1 Perr | ption Date mit 08-17-2021 | | |
| Lesher Art Room | | | |
| Pe Project No.: Project Nur | ermit nberDrawn by: Author | | |
| General Specif | Reviewed by: Checker Notes and fications | | |
| S Drawing Number | scale Accordingly if Reduced | | |
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| | 3 Demo Pla 1/8" = 1 | | |
| | | | |
| | | | |
| KovVali | Keynote Legend | | |
| . Cy vai | | | |
| 21 22 | Install new 4' Vinyl base throughout room. Extend to rear wall at forward approach accessible sink. New laminate sink base and base cabinets under new solid surface countertop w/ 1-1/2" return. Refer to casework Tech Specifications for manufacturers and hardware. Provide 3mm Dolken PVC edgebanding at all doors and drawers. Color by Owner. Provide 4" backsplash (6" at accessible sink). | | |
| | New grid and ACT ceiling tile to match existing. | | |
| C5 | Prime and paint CMU per paint specifications. Color by Owner. Note, entire wall shall be painted to inside corners. | | |
| C6 | Grind exposed concrete and clean of all debris, grease, oils and mastics. Fill all cracks with SikaFlex to match | | |
| 27 | New 14" deep laminate upper cabinets with melamine shelves. Provde 3mm Dolken PVC edgebanding at all doors. | | |
| C8 | Maintain existing outlets locations above and below counters. Convert to GFCI devices above counter. Coordinate | | |
| C9 | w/ new casework. Nominal 4'-0" x 4'-0" 18Ga. hollow metal frame with 7-3/4" profile (adjust for opening and header). Provide 1/4" clear, tempered glazing. Set in new cut opening w/ masonry anchors. Refer to structural drawings for header. | | |
| C10 | Provide paintable perimeter sealant. Paint to match adjacent. FRP plastic liner panels (.090 thinck; 4'x8', Class C with textured finish. Provide full height w/ integral vinyl moldings at joints, corners and terminations. Provide panel adhesive approved by the manufacturer. Color selection by Owner. FRP panel shall be installed over 5/8" GWB and 6" 25ga stud framing. FOStud at 6" off wall. Run new | | |
| C11 | water supply through wall and at back of cabinetry box. Parallel approach accessible sink location. Provide undermount sink in solid surface countertop @ 34" max. Provide backsplash to match adjacent. Insulate all exposed piping. | | |
| C12 C13 | Emergency Eyewash, deck mounted. Refer to plumbing drawings for spec. Painted structural header in non-load bearing masonry wall. Refer to structural drawings. Coordinate window RO w/ header. | | |
| D1 D2 | Demo existing CMU demising wall shown dashed. Wall is non-loadbearing. Take care in wall demolition at termination with existing walls. Wall should be cleaned of all mortar. Patch/repair if | | |
| 03 | Demo sink, garbage disposal, DWH, counter top and base cabinets. Catalogue and present to Owner. If Owner does not wish to salvage items, distribute to Habitat for Humanity or dispose of in proper way. | | |
|)4 | Demo existing door, frame and hardware. Salvage for Owner re-use or dispose at Owner's direction. | | |
|)5)6 | Demo existing surface mounted ceiling lighting. Demo existing ceiling and track in room 300C. Demo ceiling and grid to 1st N/S grid in room 300B. Salvage tile and | | |
|)7 | grid for re-use under new construction. Demo tile and grid shown w/ diagonal poche. Demo existing light switch Admin 300C only. Connect new lighting to existing Admin 300B lighting control under new | | |
| 08 | Construction. Demo existing flooring. Note: Owner shall test and abate asbestos if present prior to commencement of work. GC | | |
| 09 | being isoning. Note: Connects and abate aspestos in present prior to commencement of work. GC to grind and polish existing concrete floor under new construction. Seal with penetrating sealer for high traffic use. GC shall completely remove and dispose of all electrical switches, disconnects, lighting fixtures and other associated items as required for new construction UON. All existing branch circuits that are not reused shall be removed as complete as possible. Where an existing device is shown removed from an existing circuit, new wiring shall be provided as required to insure continuity of existing circuits. All surface mounted backboxes, conduit, wireway, junction boxes etc. not being reused, shall be removed in their entirety. All recessed backboxes, junciton boxes shown removed shall be abandoned in place and covered with SS cover plates. All recessed conduit shall be abandoned in place and covered with SS cover plates. | | |
| D10 D12 | Demo existing thermostat. Coordinate controls with 300B thermostat. Demo existing UC duplex outlet, vent stack and cold water stub in wall below cabinet. Refer to plumbing drawings for relocation into furred wall under new construction. Coordinate water supply and waste at back of cabinet with | | |
| EC1 | cabinetry. Existing sink, DWH and garbage disposal in sink base cabinet. See demo plan for removal. | | |
| EC2 | Existing laminate counter top and base cabinets. | | |
| EC4 | Existing VCT. Note: Owner to test and abate if positive for asbestos. | | |
| EC5 | Existing mechanical to remain. | | |



STRUCTURAL GENERAL NOTES Project: Lesher Art Room

Larsen Structural Design Job Number: 2463.2

DESIGN LOADS:

International Building Code; IBC 2021 Edition, except as noted Risk Category: Table 1604.5 III Substantial Risk to Human Life

STRUCTURAL STEEL:

Structural steel shall be detailed, fabricated, and erected in accordance with the "Specification for Structural Steel Buildings" (AISC 360-16) and the "Code of Standard Practice for Steel Building and Bridges" (AISC 303-16), by the American Institute of Steel Construction (AISC).

Structural steel wide flange beams shall conform to ASTM A992.

Other rolled shapes, including plates, channels, and angles shall conform to ASTM A36. Hollow structural section (HSS) tube shapes shall conform to ASTM A500, Grade B, 46 ksi yield.

Pipe shapes shall conform to ASTM A53 Grade B.

Except as noted, framed beam connections shall be bearing-type with 3/4" diameter, snug tight, A325-N bolts, detailed in conformance with the Structural Drawings and the "Steel Construction Manual" by AISC, 15th Edition. Install bolts in accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts", 2004. Anchor rods shall conform to ASTM F1554, Grade 36 (or high strength Gr 55 or Gr 105 as noted), with weldability

supplement S1. Welding shall be done by a certified welder in accordance with AISC and AWS specifications and recommendations using E70- electrodes. Where not specifically noted, minimum weld shall be 3/16" fillet by length of contact edge.

LETTERS OF CONSTRUCTION COMPLIANCE:

The General Contractor shall determine from the local building official at the time the building permit is obtained whether any letters of construction compliance will be requested from the Structural Engineer. The Contractor shall notify the engineer about all such requirements in writing before the start of construction. One-week advance notice shall be given when requesting site visits necessary as the basis for the compliance letter.

INSPECTIONS AND REVIEWS:

All site soils related work and footing excavations prior to placing forms, as well as site drainage, shall be reviewed by the project geotechnical engineer.

Normal reviews by Local Building Department.

Notify 48 hours prior to required review.

Required special inspections per I.B.C. Section 1705 by an approved special inspector retained by owner: * Steel: Periodic and continuous inspections of steel frame joint details. Refer to Section 1705.2 and Table 1705.2.2 of the I.B.C, and Tables N5.4-1 thru N5.4-3 and N5.6-1 thru N5.6-3 of the AISC 360-16.

Approved agencies shall provide written documentation to the building official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and testing prior to and during construction as required per IBC 2018 Section 1704.2.1.

Duties and responsibilities of the special inspector shall be to observe and/or test the work assigned and outlined above for conformance with the approved construction documents. All discrepancies shall be brought to the immediate attention of the contractor for correction.

The special inspector shall furnish regular reports to the building official, the engineer and architect of record, and other designated persons. Progress reports for continuous inspection shall be furnished weekly. Individual reports of periodic inspections shall be furnished within one week of inspection dates. The reports shall note uncorrected deficiencies, correction of previously reported deficiencies, and changes to the approved construction documents authorized by engineer of record.

The special inspector shall submit a final signed report within 10 days of the final special inspection stating whether the work requiring special inspection was, to the best of the inspector's knowledge and belief, in conformance with the approved construction documents and the applicable workmanship provisions of the International Building Code. Work not in compliance shall be noted in the report.

FIELD VERIFICATION OF EXISTING CONDITIONS:

Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the

drawings. Contractor shall report any variations or discrepancies to the Architect before proceeding.

Contract documents have been prepared using limited site observations.

During construction, the contractor may encounter existing conditions which are not now known or are variance with project documentation (discovery). contractor shall notify the engineer of all conditions not per the contract Documents. examples include:

sizes or dimensions other than those shown.

damage or deterioration to materials or components. conditions of instability or lack of support.

items noted as existing on the drawings but not found in the field include, but are not limited to:

Contractor shall prepare dimensional drawings of all discovered items. Contractor shall field verify all existing structural conditions prior to submitting shop drawings.

Contractor shall make allowance for the resolution of such discoveries in the construction schedule.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

The structural drawings illustrate the completed structure with elements in their final positions, properly supported and braced.

These construction documents contain typical and representative details to assist the contractor. Details shown apply at all similar conditions unless otherwise indicated.

Although due diligence has been applied to make the drawings as complete as possible, not every detail is illustrated, nor is every exceptional condition addressed.

All proprietary connections shall be installed in accordance with the manufacturers' recommendations. All work shall be accomplished in a workmanlike manner and in accordance with the applicable code and local

ordinances.

The general contractor is responsible for coordination of all work, including layout and dimension verification, materials coordination, shop drawing review, and the work of subcontractors. Any discrepancies or omissions discovered in the course of the work shall be immediately reported to the architect for resolution.

Continuation of work without notification of discrepancies relieves the architect and engineer from all consequences. Unless otherwise specifically indicated, the drawings do not describe methods of construction. The contractor, in the proper sequence, shall perform or supervise all work necessary to achieve the final completed structure, and to protect the structure, workmen, and others during construction.

Such work shall include, but not be limited to, bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.

Do not backfill against basement or retaining walls until supporting slabs and floor framing are in place and securely anchored, unless adequate bracing is provided. Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place. The architect and engineer bear no responsibility for the above items, and observation visits to the site do not in any

Precautionary Notes on Structural Behavior :

way include inspection of them.

- A. Interior finish detailing must accommodate the differentials in relative movement of supporting structures.
 B. Roof spans are quite long, and applied loading naturally causes substantial deflection. Interior elements
- hung from the roof will deflect with the roof.
 C. The floor is a structural slab on steel deck and will have movement during the placement of concrete during construction. The concrete deck may not be uniform across structure as a result.
- D. Exterior wall assembly is hung from the edge of the building structure and is directly affected to some degree by changes in external temperature and floor or roof deflection. Finish details should allow for relative movement between elements with different support conditions.





| | 226 Remington Unit #3 Fort Collins, CO 80524 Phone: 970/224-0630 www.r4architects.com |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | ATRADO LICA CONCLEE RICA CON 47839 CON 47839 CON 47839 CON CONAL ENGINEER |
| EXISTING CMU MASONRY WALL NEW L6x3 1/2x3/8 EACH SIDE OF WALL w1/2/90 THRU-BOLTS AT OPENING BEAR ANGLE MIN. OF of O.C. MAX. MIN. OF (3) PER OPENING BEAR ANGLE MIN. OF of ON MASONRY EACH END. COVER w11/4" PLATE | In Association with: Owner Pouder School District Owner 2445 Laporte Avenue Fort Collins, CO 80521 Phone: (970) 490-3465 Contact: Grey Gustafson Email: jaaretson@psdschools.com Meneral Contractor Address City, State, Zip Phone: # General Contractor Address City, State, Zip Phone: # Contact: - Email: - Contact: - 200 Maple St., Suite 120 Structural Engineer 320 Maple St., Suite 120 Fort Collins, CO 80521 Phone: (970) 568-3355 Contact: Eric Richards Email: eric@larsensd.com M/P Engineer 223 Linden St. Suite 204 Fort Collins, CO 80524 Phone: (970) 556-60570 Contact: Josh Miller Email: Josh-M@int-mech.com Soh-M@int-mech.com |
| | Issued No. Description Date 1 Permit 08-17-2021 |
| MU WALL INTO MU WALL, AL WALL EAD HEIGHT | Lesher Art Room |
| | Permit |
| | Project No.: Project NumberDrawn by: ELR Reviewed by: BRL |
| | Structural Notes, Plans and Details Scale Accordingly if Reduced |
| | Drawing Number S1.1 r4architects.com |

GENERAL MECHANICAL REQUIREMENTS:

CODES AND PERMITS

WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES. PERMITS NECESSARY FOR PERFORMANCE OF WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR. DRAWINGS AND COORDINATION

DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC IN NATURE. AND ARE NOT INTENDED TO BE SCALED FOR EXACT MEASUREMENTS NOR TO SERVE AS SHOP DRAWINGS. CHANGES FROM THE PLANS MADE WITHOUT CONSENT OF THE ENGINEER SHALL RELIEVE THE ENGINEER OF RESPONSIBILITY FOR ALL CONSEQUENCES ARRIVING OUT OF SUCH CHANGES INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE CONDITIONS REQUIRE REASONABLE CHANGES TO THOSE INDICATED ON THE DRAWINGS, MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE ALL WORK WITH OTHER TRADES. WARRANTY

WORKMANSHIP, MATERIALS, EQUIPMENT AND PROPER OPERATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE FROM THE OWNER. INITIAL ACCEPTANCE OF WORK SHALL NOT WAIVE THIS GUARANTEE. THIS GUARANTEE SHALL NOT INCLUDE NORMAL MAINTENANCE REQUIRED BY THE OWNER AS DESCRIBED IN EQUIPMENT OPERATION AND MAINTENANCE MANUALS.

SUBMITTALS

CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A MINIMUM OF (5) COPIES OF SUBMITTAL BROCHURES FOR REVIEW. PROVIDE INFORMATION ON ALL MAJOR EQUIPMENT AS LISTED ON DRAWING EQUIPMENT SCHEDULES, AS WELL AS VALVES, DUCTWORK ACCESSORIES AND TEMPERATURE CONTROL DIAGRAMS AS APPLICABLE. OPERATION AND MAINTENANCE MANUALS

CONTRACTOR SHALL FURNISH AT THE COMPLETION OF THE PROJECT (2) COPIES OF COMPLETE OPERATION AND MAINTENANCE MANUALS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO TURNOVER TO OWNER. MANUALS TO BE BOUND AND INCLUDE INSTALLATION INSTRUCTIONS, REPLACEMENT PARTS LISTS AND MAINTENANCE INFORMATION ON ALL EQUIPMENT AS DESCRIBED IN THE SUBMITTALS SECTION. COMPLETED OPERATION AND MAINTENANCE MANUALS ARE TO BE FORWARDED TO THE OWNER WITHIN 90 DAYS AFTER OWNER BUILDING ACCEPTANCE. PRODUCT SUBSTITUTIONS

MANUFACTURER MODEL NUMBERS LISTED ON THE DRAWINGS AND/OR SPECIFICATIONS ARE TO BE CONSIDERED AS THE BASIS OF DESIGN. WHERE TWO OR MORE ALTERNATE MANUFACTURERS OR MATERIALS ARE LISTED, THE CHOICE OF THESE SHALL BE OPTIONAL WITH THE CONTRACTOR. PRIOR TO THE AWARDING OF THE CONTRACT. CONTRACTOR MAY REQUEST A PROPOSED SUBSTITUTION OF MATERIALS IN WRITING TO THE ARCHITECT/ENGINEER NO LATER THAN SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. THE COST OF ANY CHANGES REQUIRED BY OTHER TRADES, INCLUDING A/E DESIGN, DUE TO THE USE OF EQUIPMENT AND/OR MATERIALS OTHER THAN THAT OF THE BASIS OF DESIGN SHALL BE PAID BY THE CONTRACTOR.

RECORD DRAWINGS

CONTRACTORS SHALL MAINTAIN A COMPLETE AND ACCURATE SET OF MARKED UP DRAWINGS SHOWING ACTUAL LOCATIONS OF INSTALLED WORK. THESE DRAWINGS ARE TO BE FORWARDED TO THE OWNER AS PART OF THE OPERATION AND MAINTENANCE MANUALS AT THE COMPLETION OF THE PROJECT.

ACCESS DOORS

PROVIDE ALL ACCESS DOORS/PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, CONTROL DEVICES, FILTERS AND ANY OTHER ITEMS FOR WHICH ACCESS IS REQUIRED FOR EITHER OPERATION OR SERVICING. WHERE ACCESS DOORS ARE TO BE INSTALLED IN ASSEMBLIES REQUIRED TO HAVE A SPECIFIC FIRE RATING, ACCESS DOORS SHALL ALSO BE FIRE RATED.

PIPING AND DUCTWORK SEALANT THROUGH RATED ASSEMBLIES

PENETRATIONS SHALL BE SEALED AS REQUIRED IN ACCORDANCE WITH BUILDING AND MECHANICAL CODES TO RESIST THE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION IN ORDER TO MAINTAIN THE RESISTANCE RATING OF THE CONSTRUCTION BEING PENETRATED.

PROTECTION OF MATERIALS AND EQUIPMENT

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL WORK, MATERALS, AND EQUIPMENT PROVIDED UNDER THIS SECTION. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS TO PREVENT THE ENTRANCE OF DEBRIS DURING CONSTRUCTION. ALL DUCTWORK OPENINGS SHALL BE SEALED CLOSED DURING CONSTRUCTION EQUIPMENT AND PIPING IDENTIFICATION

PROVIDE EQUIPMENT LABELS FOR ALL MAJOR EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR HANDLING SYSTEMS, FANS, VAV BOXES, CONTROLS, DAMPERS, CONTROL VALVES AND PUMPS.

PROVIDE PIPE MARKERS ON CW, HW AND HWC SYSTEMS. LABELS TO BE AT MAXIMUM 8 FEET APART, WITH FLOW DIRECTION INDICATED, AS APPLICABLE.

ADDITIONALLY, PROVIDE LABELING ON POTABLE WATER MANIFOLDS INDICATING PLUMBING FIXTURE SERVED BY THE OUTLET, AS APPLICABLE.

LABELS SHALL BE AFFIXED OR ADHERED PERMANENTLY TO EQUIPMENT. EQUIPMENT INSTALLED INDOORS TO BE LABELED WITH EMBOSSING TAPE.

EQUIPMENT INSTALLED OUTDOORS TO BE LABELED WITH ENGRAVED PLASTIC LAMINATE SIGNS. PIPE MARKERS TO BE SELF-ADHESIVE, MANUFACTURED FOR SUCH PURPOSE.

STARTERS AND DISCONNECTS EQUIPMENT STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EQUIPMENT DISCONNECTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE

ON THE DRAWINGS. STARTERS SHALL BE NEMA TYPE, AND SHALL INCLUDE PHASE MONITORING FOR MOTORS 5 HP AND LARGER. **TESTING**

TESTING SHALL BE PERFORMED ON THE FOLLOWING SYSTEMS SPECIFIED. ALL SYSTEMS LISTED MAY NOT BE INCLUDED IN PROJECT, REFER TO DRAWINGS FOR APPLICABLE SYSTEMS.

SOIL, WASTE AND STORM DRAINAGE PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES. DOMESTIC WATER PIPING SHALL BE TESTED AND PROVEN WATERTIGHT UNDER A PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM FOR A 24 HOUR PERIOD.

DOMESTIC WATER PIPING SYSTEM SHALL BE CHLORINATED AND STERILIZED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL JURISDICTION.

NATURAL GAS PIPING SHALL BE TESTED WITH AN AIR PRESSURE OF MINIMUM TWO TIMES THE DESIGN SYSTEM PRESSURE, BUT NO LESS THAN 3 PSIG, FOR A PERIOD OF 24 HOURS WITHOUT PRESSURE DROP. BALANCING

SYSTEM BALANCING SHALL BE PERFORMED BY A CERTIFIED BALANCING CONTRACTOR. BALANCE ALL SYSTEMS INCLUDING AIRFLOW TO AND FROM ALL OPENINGS, AND PUMPED WATER SYSTEMS INCLUDING DOMESTIC WATER RECIRCULATION SYSTEMS AS APPLICABLE. MAKE ANY ADJUSTMENTS NECESSARY TO RESULT IN CONDITIONS INDICATED AND PROVIDE READJUSTMENTS TO ITEMS IN REPORT AS MAY BE REQUESTED BY ARCHITECT/ENGINEER. SUBMIT TWO COPIES OF TEST AND BALANCE REPORT FOR APPROVAL. FAN AND PUMP SYSTEMS TO BE BALANCED WITHIN PLUS OR MINUS 5 PERCENT OF LISTED VALUES. AIR INLETS AND OUTLETS TO BE BALANCED WITHIN PLUS 10 PERCENT OR MINUS 5 PERCENT OF LISTED VALUES. BALANCE REPORT TO INCLUDE:

UNIT IDENTIFICATION

MANUFACTURER AND NAMEPLATE DATA EQUIPMENT NAMEPLATE AMPERAGE AND ACTUAL AMPERAGE

RPM (DESIGN AND ACTUAL)

FAN CFM (DESIGN AND ACTUAL)

FAN STATIC PRESSURE (DESIGN AND ACTUAL)

PUMP GPM (DESIGN AND ACTUAL) PUMP DISCHARGE AND SUCTION PRESSURE

OF THE BUILDING.

REGISTER, GRILLE, DIFFUSER REFERENCE NUMBER AND LOCATION

INLET/OUTLET CFM (DESIGN AND ACTUAL)

FLOW DEVICE PRESSURE DROP, CFM OR GPM

A FINAL BALANCING REPORT SHALL BE PROVIDED TO THE OWNER AFTER COMPLETION OF THE PROJECT. CLEANING AT THE COMPLETION OF WORK, ALL FIXTURES AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND DELIVERED IN A CONDITION SATISFACTORY TO THE ARCHITECT. ALL FILTERS SHALL BE REPLACED WITH NEW PRIOR TO OWNER ACCEPTANCE

GENERAL HVAC NOTES

- MECHANICAL WORK SHALL COMPLY WITH ALL APPLICABLE CODES. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK. THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL MECHANICAL CODE
- ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL – CONSTRUCTION AND INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF SMACNA OR AS REQUIRED BY ALL APPLICABLE CODES.
- CONSTRUCT ALL EXHAUST DUCTWORK TO SMACNA 1" PRESSURE 3 CLASS.
- MAINTAIN A MINIMUM 10'-0" SEPARATION FROM OUTSIDE AIR INTAKES TO EXHAUST TERMINATIONS AND PLUMBING VENTS. MAINTAIN A MINIMUM 3'-0" SEPARATION FROM EXHAUST -5 TERMINATIONS TO OPERABLE WINDOWS AND DOORS.
- WALL MOUNTED THERMOSTATS AND SENSORS SHALL BE INSTALLED 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. THERMOSTATS AND SENSORS LOCATED ON EXTERIOR WALL SURFACES SHALL BE PROVIDED WITH AN INSULATED SUB-BASE.
- TEMPORARY HEATING: THE PERMANENT HVAC SYSTEM MAY NOT BE UTILIZED FOR HEATING UNTIL ALL GYPSUM WORK IS COMPLETED AND HAS BEEN PAINTED. IF THE PERMANENT HVAC SYSTEM IS UTILIZED DURING CONSTRUCTION, ALL DUCT INTAKES SHALL BE COVERED WITH FILTER MEDIA (MERV-8 RATING). IF EXCESSIVE DUST OR DEBRIS HAS ENTERED THE SYSTEM THEN ALL COIL AND DUCT SURFACES SHALL BE CLEANED. NEW FILTERS ARE TO BE PROVIDED JUST PRIOR TO TURNOVER TO OWNER. TEMPORARY HEATING OF THE BUILDING PRIOR TO ANY USE OF THE PERMANENT HVAC SYSTEM SHALL BE THE RESPONSIBILITY OF THE G.C.
- TEMPERATURE CONTROLS SHALL BE DESIGN BUILD, CUSTOM FIELD FABRICATED TO MATCH CORRESPONDING EQUIPMENT. THE SYSTEM SHALL UTILIZE STAND ALONE ELECTRONIC COMPONENTS. THE CONTRACTOR SHALL PROPERLY SELECT, PROVIDE AND INSTALL SYSTEM(S) INCLUDING ALL COMPONENTS NECESSARY FOR A FULL AND COMPLETE, OPERATIONAL SYSTEM. THIS INCLUDES, BUT IS NOT LIMITED TO: LOW VOLTAGE WIRING, THERMOSTATS, DAMPER MOTORS, SOLENOIDS, RELAYS, CONTACTORS, STARTERS, TIME CLOCKS, CONTROL PANELS, SYSTEM COMMISSIONING AND OWNER TRAINING. ALL LINE VOLTAGE INTERFACING SHALL BE COORDINATED DIRECTLY WITH THE ELECTRICAL CONTRACTOR. PROVIDE SUBMITTALS ON COMPONENTS AND WIRING DIAGRAMS PRIOR TO ORDERING

INSULATION NOTES AND HVAC ENERGY CODE

- THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE. ALL SUPPLY, RETURN AND EXHAUST DUCTWORK SHALL BE
- SEALED AIRTIGHT WITH DUCT SEALANT ALONG ALL SEAMS AND JOINTS.

HVAC LEGEND:

| | DOUND DUCT (NEW SHADED/EXISTING UNSHADED) |
|-----------------------------------------|-------------------------------------------|
| | ROUND DUCI (NEW SHADED/EXISTING UNSHADED) |
| | RECI DUCI SIZE CHANGE |
| | RECT DUCT CHANGE TO ROUND |
| | RECT ELBOW UP (SUPPLY) |
| | RECT ELBOW UP (NON-SUPPLY) |
| | RECT ELBOW DOWN (SUPPLY) |
| | RECT ELBOW DOWN (NON-SUPPLY) |
| | ROUND ELBOW UP |
| | ROUND ELBOW DOWN |
| | RECT ELBOW W/ TURNING VANES |
| | ROUND ELBOW |
| | ROUND TAKE-OFF W/ DAMPER FROM RECT MAIN |
| | ROUND TAKE-OFF W/ DAMPER FROM ROUND MAIN |
| | RECT TAKE-OFF W/ DAMPER FROM RECT MAIN |
| | RECT TAKE-OFF W/ DAMPER FROM ROUND MAIN |
| | DIFFUSER WITH FLEX DUCT |
| | RETURN GRILLE (UNDUCTED) |
| | RETURN/EXHAUST GRILLE (DUCTED) |
| $\overset{- \sqrt{2}}{\longleftarrow}$ | AIRFLOW PATTERNS |
| (T) _{Z-*} | THERMOSTAT WITH ZONE TAG |
| (S) _{z-*} | SENSOR WITH ZONE TAG |
| C _{Z-*} | CARBON DIOXIDE SENSOR |
| F FIRE DAMPER TAG | |
| FS FIRE/SMOKE DAMPER WITH DUCT DETECTOR | |
| SD | SMOKE DAMPER WITH DUCT DETECTOR |
| | DUCT WITH VOLUME DAMPER |
| DUCT WITH MOTORIZED DAMPER | |
| | DUCT WITH COUNTERBALANCED DAMPER |
| | DEMOLITION SCOPE |
| / ·/ / / / / ′/ | |



