

# **Preliminary Engineering Report**

***Eastern Wyoming College –  
Construction Technology Program Addition  
800 South Wind River Drive  
Douglas, WY 82633***

**Prepared for: *Converse County, Wyoming  
107 North 5th Street  
Douglas, WY 82633-2498***

***Updated 7.12.2023***



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## C.1 Description of Project Components

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### Project Components

The proposed Construction Technology Program will be established on the Eastern Wyoming College campus in Douglas, WY. Outreach facilities like the Douglas Campus, play an important role for Eastern Wyoming College's ability to serve a greater population that is largely rural and spread out over the entire eastern half of the state. The program is intended to serve residents throughout the state training students for careers in the construction trades. The area most served by the investment will be a radius of approximately 200 miles around Douglas. The area includes Gillette and Rock Springs which have experienced mine closures and subsequent job loss.

The project will affect approximately 10,000 s.f. of the existing site to accommodate the proposed 8,820 s.f. building addition to be located immediately west of the existing Workforce Training Lab. The project will include the following spaces: Wood Technology Lab (3,047 s.f.), two instructional classrooms, (at 1,160 s.f. and 1,058 s.f. respectively), a material storage room adjacent to the Wood Technology Lab at 457 s.f., two program instructor offices at 160 s.f. each plus restrooms, mechanical, entry and circulation space. The project will include minimal site and landscaping restoration necessary to tie the new addition to the existing parking and site design. The building addition will utilize similar materials as the existing building including a structural steel framework, steel bar joist & steel deck roof structure, slab on grade with frost protected foundation, matching architectural metal panel, brick, concrete masonry units, aluminum frame windows and storefront entry system. It will also feature a similar low sloped membrane roof with internal roof drains. The facility is equipped throughout with an automatic fire suppression system that will be extended to the proposed building addition. Erosion control measures will be employed during construction. All landscaping will be consistent with the existing campus.

Individual project components included for the overall project improvements include:

- Demolition and Removals of existing curb, gutter, sidewalk, asphalt pavement and landscaping
- Erosion Control / Restoration
- Building Construction
- Landscaping
- Paving items including base material, concrete curb and gutter, and concrete sidewalks

A Project site plan is attached in Appendix A showing the location and extents of the building addition.

## C.2 Statement of Project Consistency

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The project components as detailed in this Preliminary Engineering Report are consistent with the EDA investment project description that is provided in Section B.2 of Form ED-900.

The project will address the priorities of 1) equity 2) recovery and resilience, 3) workforce/training development, 4) tech-based economic development and 5) environmentally sustainable development. The project will help Wyoming recover from the loss of coal mining jobs and train students to enter the construction trades within the region. It will fund the capital improvements and initial program start-up expenses at Eastern Wyoming College for the Construction Technology Program.

## C.3 General Site Layout

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### Building Schematics

Preliminary plans for the proposed building addition are attached in Appendix B. The plan set includes a site plan, building floor plan and proposed building exterior elevations. Major components of the project are included and labeled in the preliminary plan set and dimensions are provided.

### Beneficiaries

The Construction Technology Program can produce up to 30 graduates each year from a certificate program (potentially some of those students could move on to an associate degree). In five years, 150 new skilled workers would be ready for new jobs.

Project beneficiaries include existing workers who need new skills after recent mine closures, high school students who will seek jobs in the construction trades, and a variety of local businesses who will use these skilled workers.

## C.4 Feasibility Analysis

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A feasibility analysis for the constructability of the project, including a review of the existing conditions and noting particular features affecting construction or project components is described below.

### Existing Conditions

The Douglas Branch Campus of Eastern Wyoming College is located in close proximity and north of the Platte River in the City of Douglas, Wyoming within the Douglas Business Park. The single existing multi-use building is approximately 28,317 s.f. and was constructed in 2015. The existing building was designed with future expansion in mind and can accommodate the proposed addition. When construction began, concrete and construction debris was uncovered during excavation, which is likely to exist further south on the site as well. A Geotechnical Report is recommended for the proposed project area. The entire property is zoned 'Planned Light Industrial.' A mix of industrial usage and undeveloped property borders the campus to the north and south. Directly adjacent to the campus along the north is a drainage easement zoned as part of the Greenspace District. The primary as well as the service vehicular access point are both located off of S. Wind River Drive. Currently, there are 139 parking spaces provided on the existing campus in five lots.

### Utilities

Existing municipal sanitary sewer, gas, water and underground electrical services exist along Wind River Drive and South River Bend Drive. It is anticipated that the proposed building addition will be served by existing utilities currently serving the existing building.

### Building Improvements

All building improvements shall be designed in conformance with the current edition (2021 ICC) adopted State of Wyoming codes and referenced standards. The proposed building addition will be classified as Type 'IIB' construction, meaning that the building may be constructed of noncombustible elements/materials. The building occupancy classification is Group 'B' Business, (educational use for students beyond the twelfth grade). The proposed building addition will be approximately 8,820 s.f. as described on the attached schematic plan set.

The existing building is equipped throughout with an automatic sprinkler system. This system will be extended/ modified to include the intended project area of the proposed addition.

The project will include the following spaces: Wood Technology Lab (3,047 s.f.), two instructional classrooms, (at 1,160 s.f. and 1,058 s.f. respectively), a material storage room adjacent to the Wood Technology Lab at 457 s.f., two program instructor offices at 160 s.f. each plus restrooms, mechanical, entry and circulation space. The program is intended to serve 30 students. The project will include minimal site and landscaping restoration necessary to tie the new addition to the existing parking and site design. The building addition will utilize similar materials as the existing building including a structural steel framework, steel bar joist & steel deck roof structure, slab on grade with frost protected foundation, matching architectural metal panel, brick, concrete masonry units, aluminum frame windows and storefront entry system. It will also feature a similar low sloped membrane roof with internal roof drains. The facility is equipped throughout with an automatic fire suppression system that will be extended to the proposed building addition. Erosion control measures will be employed during construction. All landscaping will be consistent with the existing campus. The overall site planning concept for the facility is to keep pedestrian circulation walkable and compact, with parking and vehicular access encircling the perimeter of the property to limit crossings between pedestrians and vehicular traffic.

The extent of the interior remodeling will be limited to the existing corridor leading to the proposed addition and the shared wall adjoining the existing 'Workforce Classroom' and the new adjacent Classroom 'B.' The work will include the repair of the existing floor, exterior wall, roof/ceiling assembly and extension of the HVAC, fire protection and electrical systems. Fixtures, furnishings and equipment to support the instruction of the construction trades curriculum are not in the project budget. These will be financed by the applicant separately.

## **Stormwater Management**

At the Douglas Campus, there is no city storm sewer in the area, thus, onsite storm water is detained at the drainage swale along the east side of the site and released into the drainage easement. The drainage easement is located along the north and northwest border of the Douglas Campus.

## **C.5 Method of Construction**

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The project will be constructed utilizing the traditional Design-Bid-Build format with sealed bids. Once the final bid documents are complete, the project will be let for competitive public bidding. All proposed building & site improvements will be completed under a single prime contract. All construction is to be completed under a single phase.

## **C.6 Construction Contracts**

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The proposed contract shall be the American institute of Architects Document A101 – 2017 "Standard Form of Agreement Between Owner and Contractor" where the basis of payment is a "Stipulated Sum" for the intended project. General and supplemental bidding requirements including bid security, insurance requirements, performance bond and Payment bond shall be in accordance with EDA requirements. All construction is to be completed under a single phase.

## **C.7 Construction Costs**

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A current opinion of probable construction cost is included in Appendix D.

Individual project cost items included the construction cost estimates include:

- Interior Remodeling

- Building Addition
- Demolition and Removal
- Sitework

Some cost items are based on a standard percentage of overall improvement cost, while others are based upon a cost per square foot basis. This is standard practice at the time of preliminary design to determine project costs.

Project contingency is based upon five percent of the total construction cost which is standard per the EDA guidelines.

## C.8 Real Property Acquisition

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The approximate 10-acre site has one existing, multi-purpose building with adequate space adjacent to its west end to accommodate the proposed addition. The proposed project does not include any additional relocation expenses or cause any displacements. Therefore, no costs incidental to land acquisition or relocation were included in the provided Opinion of Cost.

## C.9 Permits Required

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A list of all local, state, and federal permits required before the proposed project is provided below. The list includes the timeline, (if known) to obtain each permit and how it affects the overall project schedule.

- City of Douglas Type B Development Application - The application shall be applied for prior to completion of bidding/construction documents and has a 60 day review/approval period with hearings at both the Planning and Zoning Commission as well as the City Council. Principle requirements are site plan related. The application approval will be obtained prior to award of the construction contract.
- Converse County will prequalify contractors based on their ability to show similar work experience and ability to obtain insurance and bonding during the bid solicitation process.
- State of Wyoming Plan Review – Submittals shall include complete plans and specifications showing all applicable information indicated on the appropriate State of Wyoming plan review checklist including fire alarm and fire suppression. Plans shall be accepted or rejected for review within 5 business days of date of receipt. Review of complete submittals shall be completed within 21 business days of date of acceptance. The 'Permit to Construct' will be applied for and obtained prior to award of the construction contract.
- City of Douglas Building Permit – The permit will be obtained prior to beginning any construction work.

## C.10 Project Schedule

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Upon receiving the EDA award in the summer of 2023, a meeting with EDA staff, to discuss design will occur if needed. The project would move into final design and construction document development in fall 2023. It is estimated that design will take approximately three months. After the EDA has approved the project design, the next phase is to proceed with preparing for bid solicitation and contract awards. Required permits will be obtained during the last month of the design phase and during the bid solicitation phase.

Bids would be received in the winter of 2024. After the contract award process is completed, approximately ten months will be spent constructing the project. Construction would be complete by 2025. Start and finish dates for each of the above phases will be contingent upon funding award.

## C.11 Project Budget

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The preliminary cost estimate for the proposed improvements were compiled and assigned a total cost amount per classification line item indicated in the project budget on Form SF424C. The following breakdown of the proposed project costs and tasks that are consistent with the detailed cost estimate for the project provided are as follows:

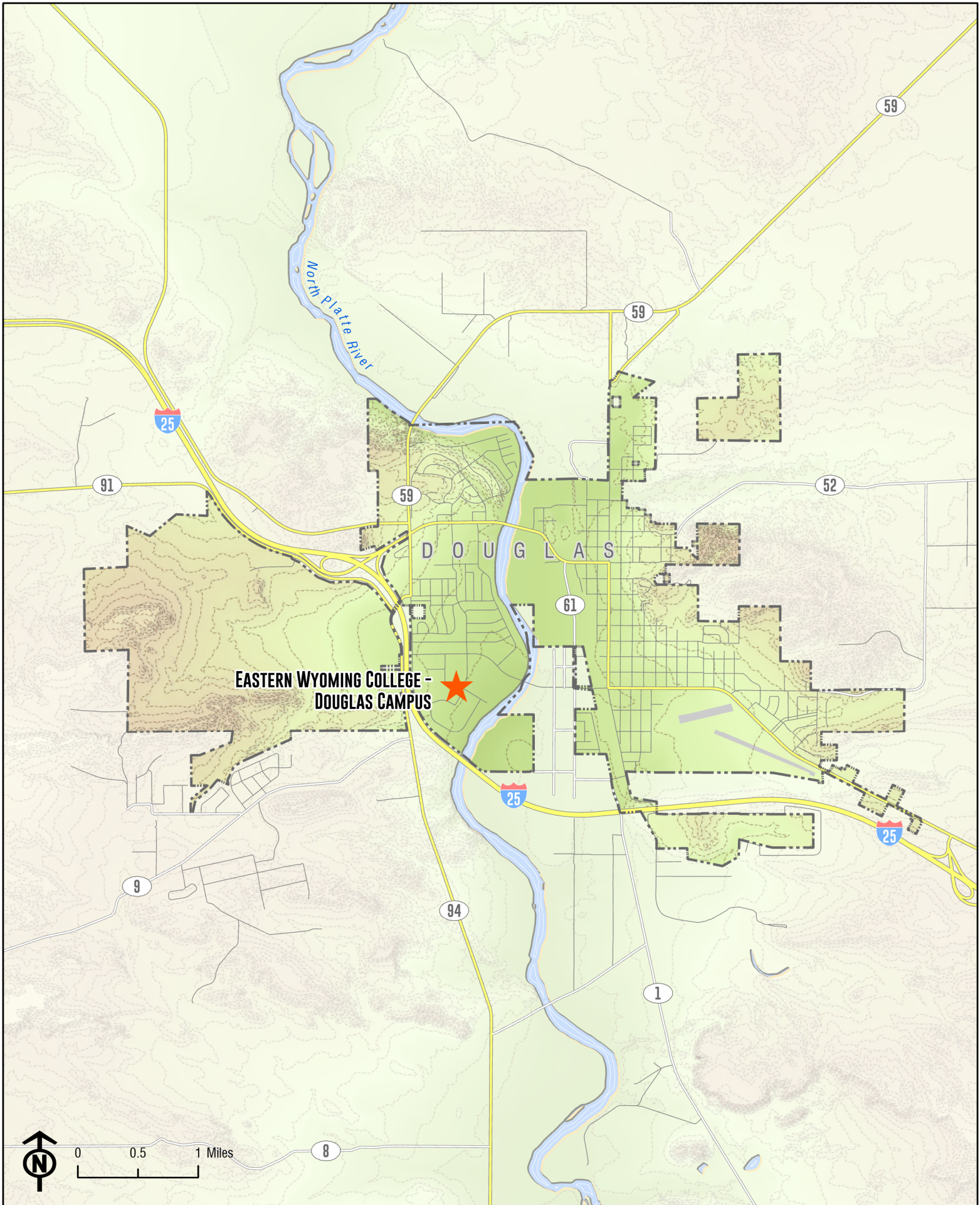
1. Administrative and legal expenses – Administration fees are not included for this project.
2. Land, structures, rights-of-way, appraisals, etc. – Not applicable for this project as Eastern Wyoming College (ECW) owns project site.
3. Relocation expenses and payments - Not applicable for this project as ECW owns project site.
4. Architectural and Engineering fees - Combined design cost for preparing final building plans (architectural, civil, structural, mechanical, electrical, plumbing & fire suppression)
5. Other architectural and engineering fees – Topographic survey & geotechnical report.
6. Project inspection fees – City & state plan review fees, construction testing & observation.
7. Site work = Combined cost for Earthwork, Landscaping, Paving Items.
8. Demolition = Combined cost for Removals (site and building related).
9. Construction = Combined cost for building construction.
10. Equipment = Not included. To be funded separately.
11. Miscellaneous = Performance bond cost.

Project contingency is based upon five percent of the total construction cost which is standard per the EDA guidelines.



# **Appendix A**

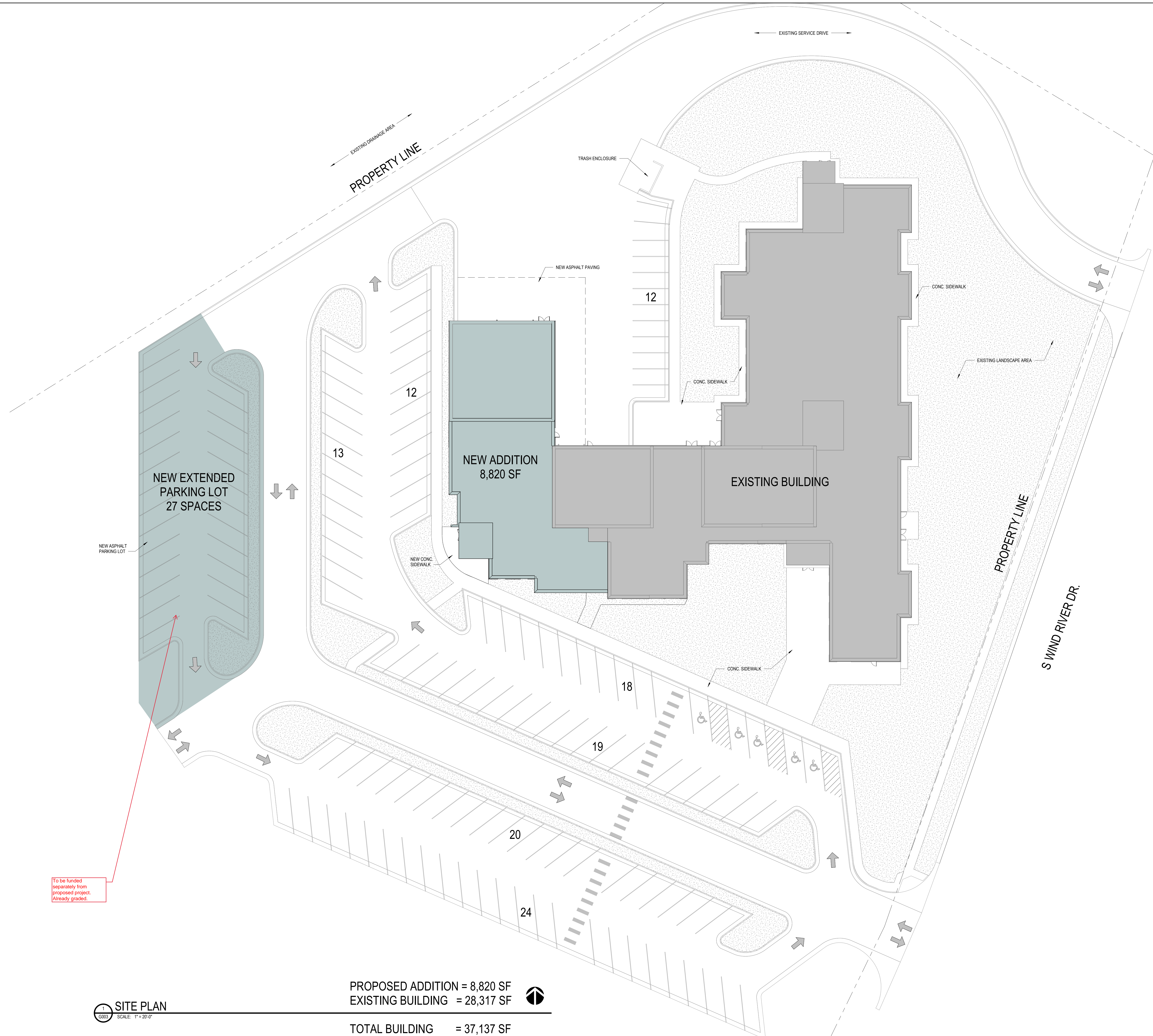
## **Project Location**



# **Appendix B**

## **Preliminary Improvement Plans**

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To be funded separately from proposed project. Already graded.

1 SITE PLAN  
SCALE: 1" = 20'-0"

PROPOSED ADDITION = 8,820 SF  
 EXISTING BUILDING = 28,317 SF  
 TOTAL BUILDING = 37,137 SF

NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION

CONVERSE COUNTY EASTERN WYOMING COLLEGE  
 CONSTRUCTION TECHNOLOGY PROGRAM ADDITION  
 DOUGLAS, WY

AYRES ASSOCIATES, INC.  
 215 N. SHERIDAN ST.  
 RIVER FALLS, WISCONSIN 54222  
 (715) 834-3161



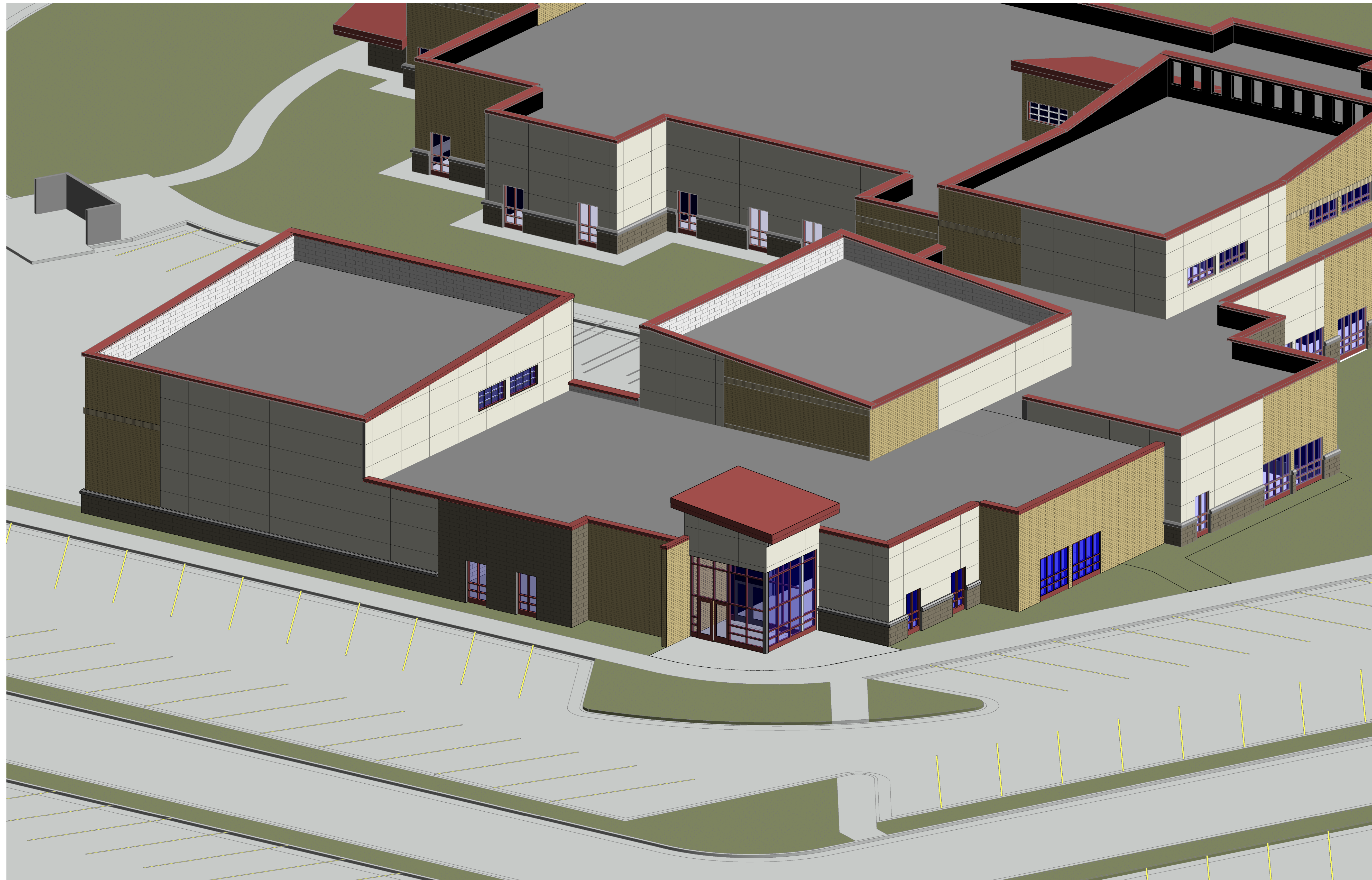
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03.11.2022  
 PROJECT No: 52-0732.00  
 ARCHITECTURAL SITE PLAN

G003

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1 ISOMETRIC VIEW  
G004 SCALE

NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION

**CONVERSE COUNTY EASTERN WYOMING COLLEGE**  
**CONSTRUCTION TECHNOLOGY PROGRAM ADDITION**  
 DOUGLAS, WY

**AYRES**

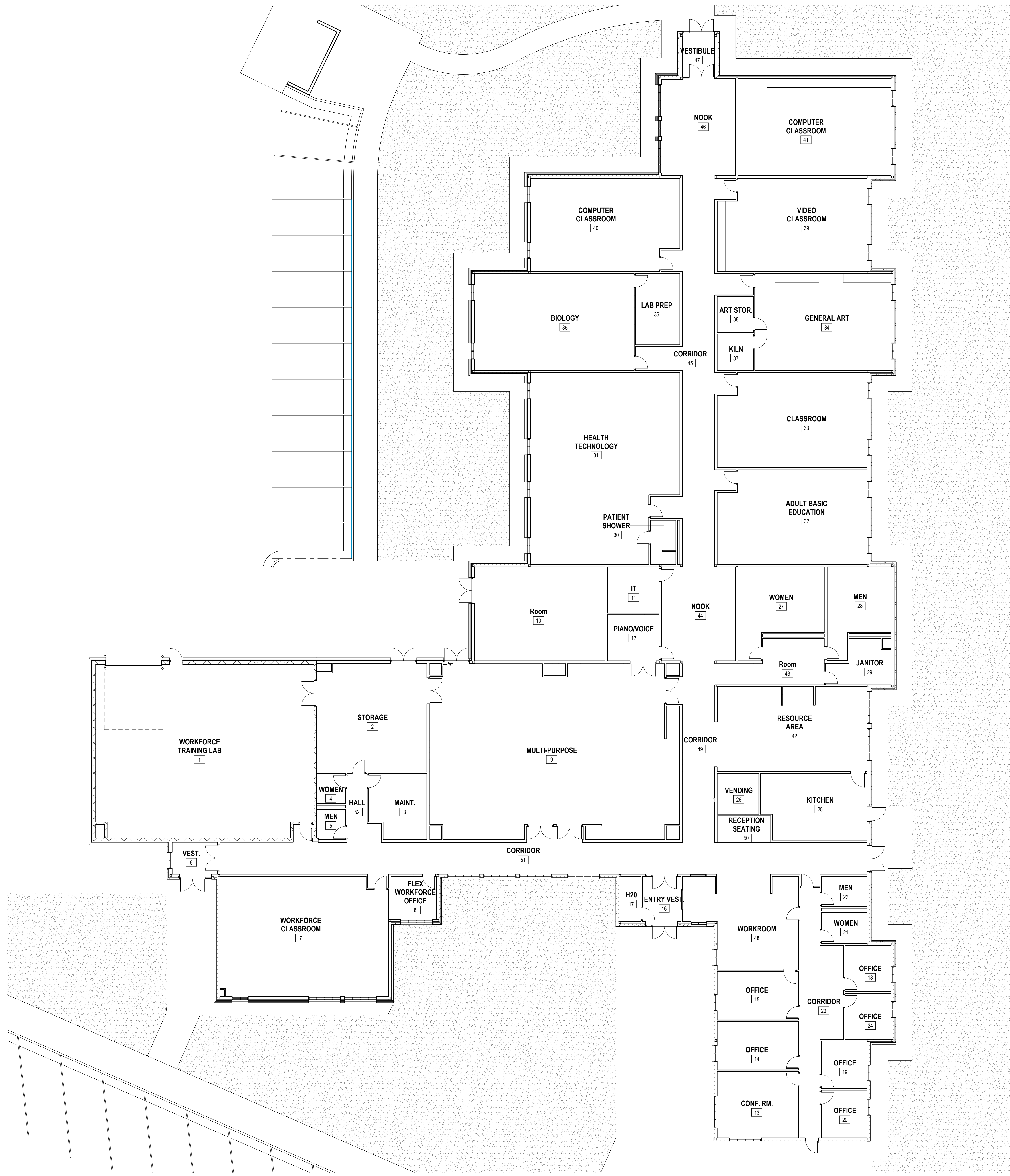
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 (715) 834-3161  
 Brian E. Ayres, P.E.  
 2151 Sunset Street  
 River Falls, Wisconsin 54222

NOT FOR CONSTRUCTION

03.11.2022  
 PROJECT No: 52-0732.00  
 ISOMETRIC VIEW  
**G004**

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1 EXISTING FLOOR PLAN  
SCALE: 3/32" = 1'-0"



NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION

CONVERSE COUNTY EASTERN WYOMING COLLEGE  
CONSTRUCTION TECHNOLOGY PROGRAM ADDITION  
DOUGLAS, WY

**AYRES**

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 1500 South Wadsworth Parkway  
 Englewood, Colorado 80150  
 (719) 884-3161

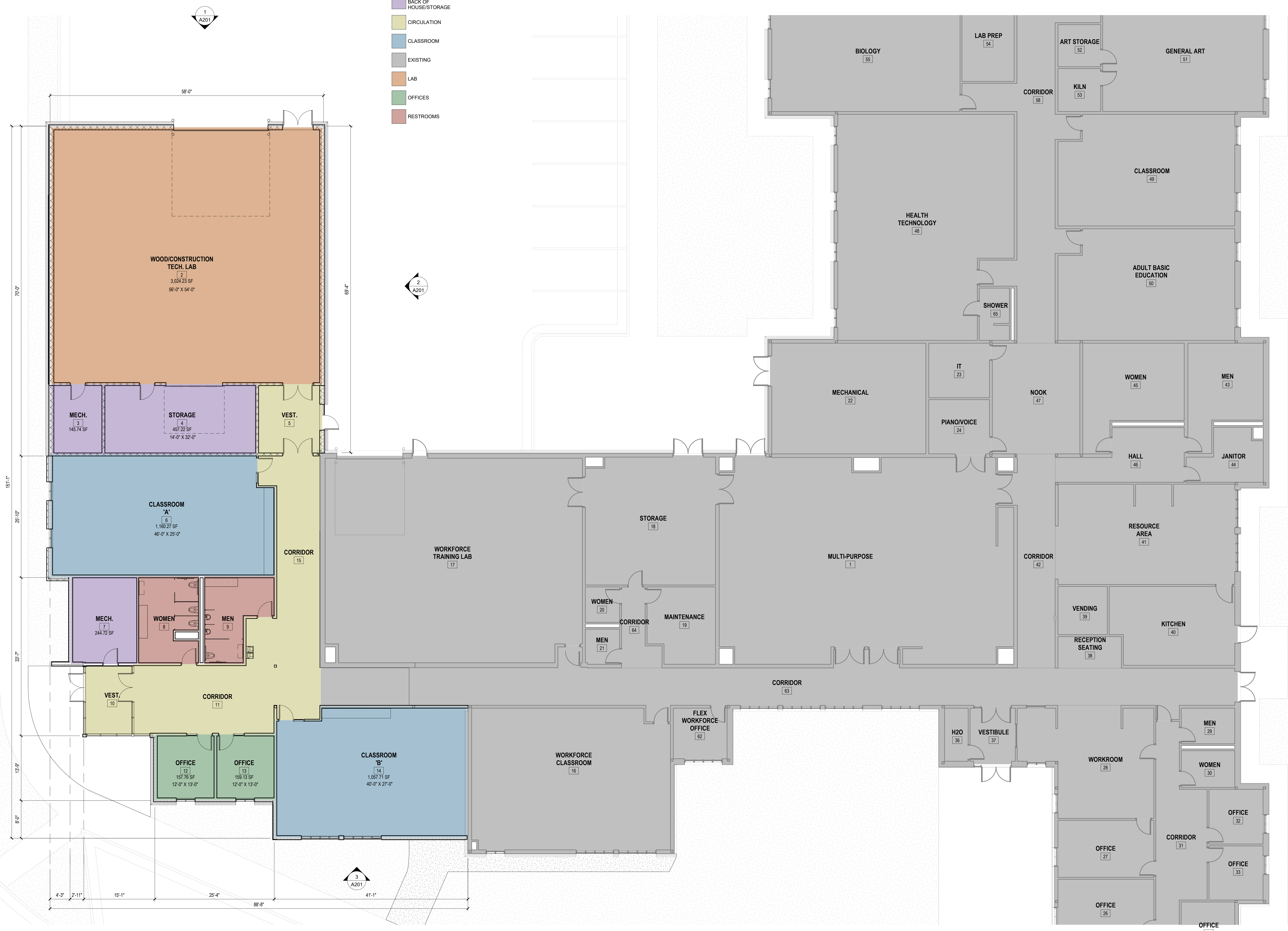
River Falls, WI  
 2151 Seward Street, Suite 204  
 River Falls, Wisconsin 54222

NOT FOR CONSTRUCTION

03.11.2022
PROJECT No: 52-0732.00
ARCHITECTURAL EXISTING
<b>AE101</b>

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- Department Legend
- BACK OF HOUSE/STORAGE
  - CIRCULATION
  - CLASSROOM
  - EXISTING
  - LAB
  - OFFICES
  - RESTROOMS



**1** PROPOSED FLOOR PLAN  
SCALE: 1/8" = 1'-0"

PROPOSED ADDITION = 8,820 SF

NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION

CONVERSE COUNTY EASTERN WYOMING COLLEGE  
CONSTRUCTION TECHNOLOGY PROGRAM ADDITION  
DOUGLAS, WY

AYRES ASSOCIATES, INC.  
215 N. Second Street  
River Falls, Wisconsin 54222  
Phone: 715.834.3161  
Fax: 715.834.3161

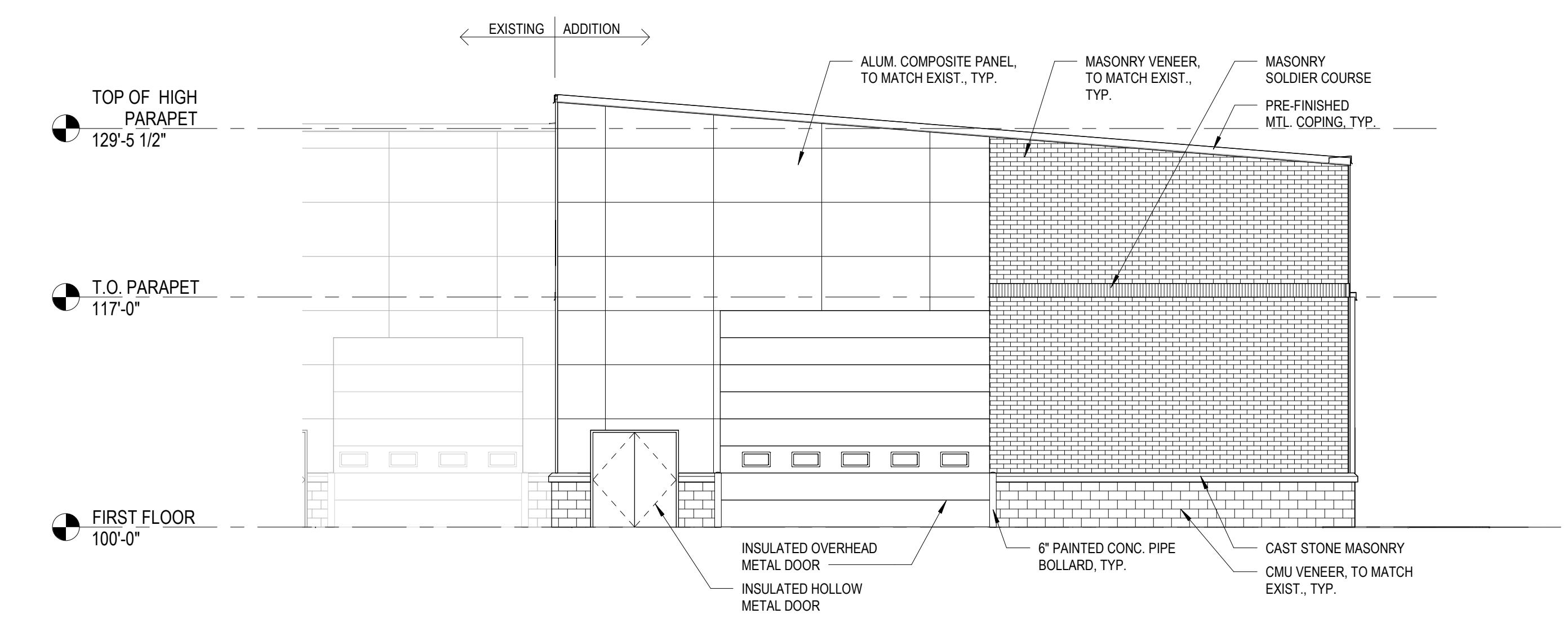


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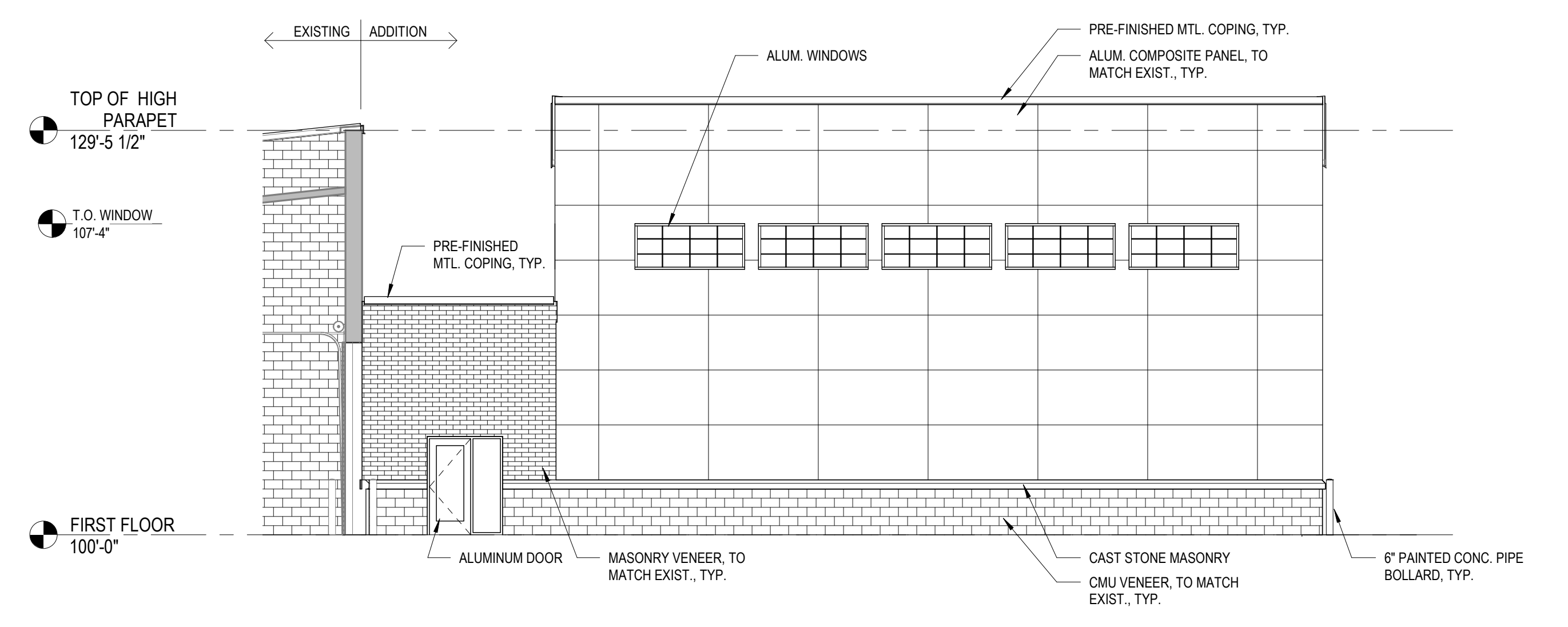
NOT FOR CONSTRUCTION

03.11.2022
PROJECT No: 52-0732.00
FIRST FLOOR PLAN
<b>A101</b>

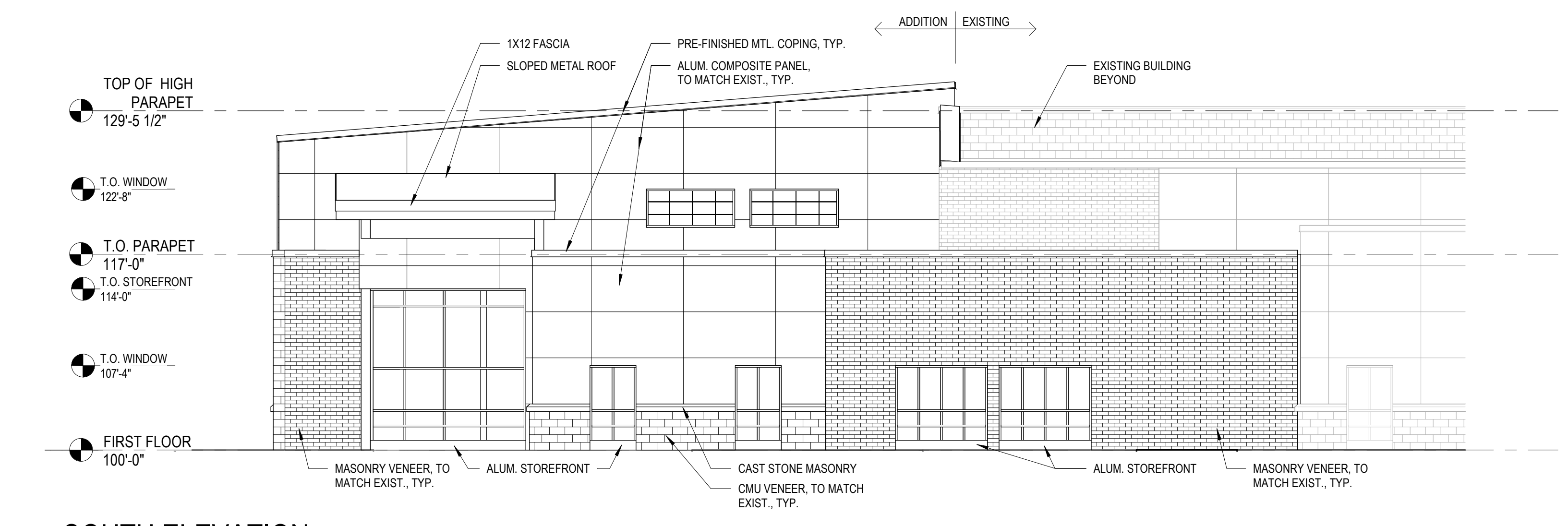
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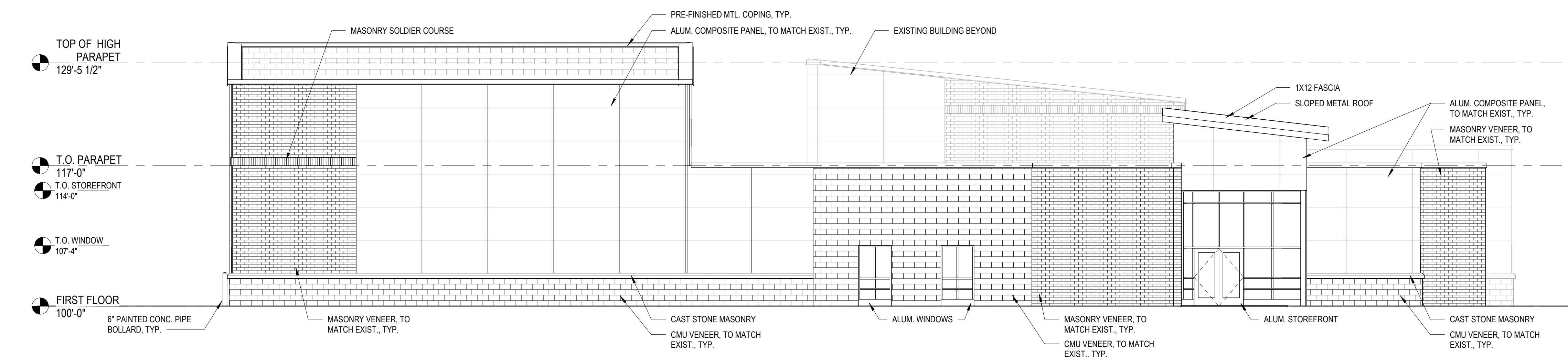
1 NORTH ELEVATION  
A201 SCALE: 1/8" = 1'-0"



2 EAST ELEVATION  
A201 SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION  
A201 SCALE: 1/8" = 1'-0"



4 WEST ELEVATION  
A201 SCALE: 1/8" = 1'-0"

NOT FOR CONSTRUCTION

MARK	DATE	DESCRIPTION

CONVERSE COUNTY EASTERN WYOMING COLLEGE  
CONSTRUCTION TECHNOLOGY PROGRAM ADDITION  
DOUGLAS, WY

BY: **AYRES**  
3400 Charlemagne Parkway  
Evanston, Wisconsin 54701  
(715) 884-3161  
RILEY E. ELLIOTT, P.E.  
215 N. Second Street, Suite 204  
River Falls, Wisconsin 54222

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03.11.2022  
PROJECT No: 52-0732.00  
EXTERIOR ELEVATIONS

A201



# **Appendix C**

## **Engineer's Opinion of Cost**

**PRELIMINARY OPINION OF PROJECT COST**

Project No. 52-0732.00

PROPOSED CONSTRUCTION SCOPE OF WORK	Quantity	Cost/S.F.	Total	Notes
Interior Remodeling	200 S.F.	\$100.00	\$20,000.00	
Building Addition	8,820 S.F.	\$237.00	\$2,105,340.00	
Demolition and Removal	1 L.S.	\$181,000.00	\$181,000.00	
Sitework	1 L.S.	\$242,000.00	\$242,000.00	
<b>Sub-total</b>			<b>\$2,548,340.00</b>	
Contractor General Conditions, OH&P			\$590,214.88	
<b>Total Construction Cost</b>			<b>\$3,138,554.88</b>	
Contingency (10%)			\$313,855.49	
Geotechnical Report/ Site Survey			\$20,000.00	
Professional Fees (Arch/MEP/Civil)			\$237,000.00	
State Plan Review Fees			\$6,500.00	
Local Plan Review & Permits			\$5,000.00	
Construction Testing & Observation			\$15,000.00	
Technology - Equipment			\$0.00	
<b>Total Project Cost</b>			<b>\$3,735,910.37</b>	

This budget is based on estimated construction costs; construction prices may increase depending on when construction starts. All construction cost estimates are preliminary. The construction cost may differ from the preliminary cost estimate due to cost of labor, materials or equipment, construction methods, unforeseen factors with the existing building, and changes in the scope of work. The architect cannot and does not warrant that the bids or negotiated prices will not vary from the preliminary cost estimate.

Budget does not include Furniture, Fixtures, or Equipment