

Final Project Proposal

2028-29

Community College Construction Act of 1980
Capital Outlay Budget Change Proposal

Science Replacement Modernization

Proposal Name

Los Rios Community College District

Community College District

American River College

College or Center

July 1, 2026

Date

A _____ P x W x C x E _____

2.1 FINAL PROJECT PROPOSAL CHECKLIST

District: Los Rios Community College District

College: American River College

Project: Science Replacement Modernization

Prepared by: Suniya 360 Architects **Date:** July 1, 2026

| Section | Description | Status | Date |
|------------|---|-----------------|-------------------|
| 1.1 | Title Page | <u>Complete</u> | <u>04/30/2026</u> |
| 2.1 | Final Project Proposal Checklist | <u>Complete</u> | <u>04/30/2026</u> |
| 3.1 | Approval Page - Final Project Proposal (with original signatures) | <u>Complete</u> | <u>06/30/2026</u> |
| 3.2 | Project Terms and Conditions | <u>Complete</u> | <u>04/30/2026</u> |
| 4.1 | Analysis of Building Space Use and WSCH - JCAF 31 | <u>Complete</u> | <u>04/30/2026</u> |
| 5.1 | Cost Estimate Summary - JCAF 32 | <u>Complete</u> | <u>04/30/2026</u> |
| 5.2 | Quantities and Unit Costs supporting the JCAF 32 | <u>Complete</u> | <u>04/30/2026</u> |
| 6.1 | Board of Governors Energy and Sustainability Policy | <u>Complete</u> | <u>04/30/2026</u> |
| 7.1 | Responses to Specific Requirements - State Administrative Manual | <u>Complete</u> | <u>04/30/2026</u> |
| 8.1 | California Environmental Quality Act | <u>Complete</u> | <u>04/30/2026</u> |
| 9.1 | Analysis of Future Costs | <u>Complete</u> | <u>04/30/2026</u> |
| 10.1 | Campus Plot Plan | <u>Complete</u> | <u>04/30/2026</u> |
| 10.2 | Site Plan | <u>Complete</u> | <u>04/30/2026</u> |
| 10.3 | Demolition Site Plan | <u>Complete</u> | <u>04/30/2026</u> |
| 10.4- 10.5 | Floor Plans | <u>Complete</u> | <u>04/30/2026</u> |
| 10.6 | Elevations | <u>Complete</u> | <u>04/30/2026</u> |
| 10.7 | Post Occupancy Demolition Site Plan | <u>Complete</u> | <u>04/30/2026</u> |
| 11.1 | Guideline-Based Group II Equipment Cost Estimates - JCAF 33 | <u>Complete</u> | <u>04/30/2026</u> |
| 12.1 | Justification of Additional Costs exceeding Guidelines | <u>Complete</u> | <u>04/30/2026</u> |
| 13.1 | Detailed Equipment List | <u>N/A</u> | <u>_____</u> |
| | Structural Report (as separate attachment) | <u>Complete</u> | <u>04/30/2026</u> |

3.1 APPROVAL PAGE
Final Project Proposal
Budget Year **2028-29**

District: Los Rios Community College District

Project Location: American River College
(College, campus, or center)

Project Name: Science Replacement Modernization

The district proposes funds for inclusion in the State capital outlay budget (check items):

preliminary plans working drawings , construction , equipment

District Certification

Contact Person: Pablo Manzo **Telephone:** (916) 856-3400
(Facilities, Planning and Development)

E-Mail Address: manzop@losrios.edu **Fax:** N/A

Approved for submission: _____ **Date:** _____
(Chancellor/President/Superintendent Signature)

District Board of Trustees Certification

The Governing Board of the District approves the submission of this application to the Board of Governors of the California Community Colleges and promises to fulfill the succeeding list of Project Terms and Conditions.

(President of the Board of Trustees Signature and Date)

(Secretary of the Board of Trustees Signature and Date)

Attach a copy of the Board Resolution that substantiates approval of the application and promises to fulfill the Project Terms and Conditions.

Submit proposal to:
Facilities Planning and Utilization
Chancellor's Office
California Community Colleges
1102 Q Street, 4th Floor (Ste. 6549)
Sacramento, CA 95811-6549

Chancellor's Office Certification

Reviewed by _____

Date Completed _____

3.2 PROJECT TERMS AND CONDITIONS

District: Los Rios CCD **College:** American River College
Project: Science Replacement Modernization **Budget Year:** 2028-29

1. The applicant hereby requests state funds in the amount prescribed by law for the project named herein. All parts and exhibits contained in or referred to in this application are submitted with and made part of this application.
2. The applicant hereby assures the Board of Governors of the California Community Colleges that:
 - a. Pursuant to the provisions of Section 57001.5 of Title 5 no part of this application includes a request for funding the planning or construction of dormitories, stadia, the improvement of sites for student or staff parking, single-purpose auditoriums or student centers other than cafeterias. The facilities included in the proposed project will be used for one or more of the purposes authorized in 57001.5 of Title 5.
 - b. Any state funds received pursuant to this application shall be used solely for defraying the development costs of the proposed project.

If the application is approved, the construction covered by the application shall be undertaken in an economical manner and will not be of elaborate or extravagant design or materials.
 - c. Pursuant to the provisions of Section 81837 of the *Education Code*, approval of the final plans and specifications for construction will be obtained from the Board of Governors of the California Community Colleges before any contract is let for the construction.
 - d. No changes in construction plans or specifications made after approval of final plans which would alter the scope of work, function assignable and/or gross areas, utilities, or safety of the facility will be made without prior approval of the Chancellor's Office of the California Community Colleges and the Department of General Services, Division of the State Architects.
 - e. Pursuant to the provisions of Section 57011 of Title 5, upon completion of a project the governing board shall submit to the Chancellor's Office, within 30 days after the closure of the current fiscal year, a final report on all expenditures in connection with the sources of the funds expended. The district shall be subject to a state post-audit review of fund claims for all such projects.
 - f. Architectural or engineering supervision and inspection will be provided at the construction site to ensure that the work was completed in compliance with the provisions of Section 81130 of the *Education Code* and that it conforms to the approved plans and specifications.
 - g. Pursuant to the provisions of Section 8 of the *Budget Act*, no contract will be awarded prior to the allocation of funds to the Board of Governors by the Public Works Board.
3. It is understood by the applicant that:
 - a. No claim against any funds awarded on this application shall be approved which is for work or materials not a part of the project presented in this application as it will be finally allocated by the Public Works Board.
 - b. The failure to abide by each of the assurances made herein entitles the Board of Governors of the California Community Colleges to withhold all or some portion of any funds awarded on this application.
 - c. Any fraudulent statement which materially affects any substantial portion of the project presented in this application, as it may be finally approved, entitles the Board of Governors of the California Community Colleges to terminate this application or payment of any funds awarded on the project presented in this application.
4. It is further understood that:
 - a. The appropriation which may be made for the project presented in this application does not make an absolute grant of that amount to the applicant.
 - b. The appropriation is made only to fund the project presented in this application, as it is finally approved, regardless of whether the actual cost is less than or equals the appropriation.
 - c. A reduction in the scope of the project or assignable areas shall result in a proportionate reduction in the funds available from the appropriation.

Los Rios Community College District (230)

American River College (231)

Project: Science Replacement Modernization

| Rm Type | Description | TOP Code | Department | ASF | Sec. ASF | Increase In Space |
|---------|---------------------------|----------|---|--------|----------|-------------------|
| 110 | Classroom | 0099 | General Assignment | 0 | 2,759 | -2,759 |
| 110 | Classroom | 0099 | General Assignment | 1,350 | 0 | 1,350 |
| 110 | Classroom | 0099 | General Assignment | 0 | 3,098 | -3,098 |
| 110 | Classroom | 4900 | Interdisciplinary Studies | 0 | 664 | -664 |
| 115 | Classroom Service | 0099 | General Assignment | 0 | 64 | -64 |
| 115 | Classroom Service | 0099 | General Assignment | 0 | 38 | -38 |
| 210 | Class Lab | 0400 | Biological Sciences | 0 | 1,346 | -1,346 |
| 210 | Class Lab | 0401 | Biology, General | 0 | 1,502 | -1,502 |
| 210 | Class Lab | 0401 | Biology, General | 2,700 | 0 | 2,700 |
| 210 | Class Lab | 0402 | Botany, General | 1,350 | 0 | 1,350 |
| 210 | Class Lab | 0402 | Botany, General | 0 | 1,141 | -1,141 |
| 210 | Class Lab | 0403 | Microbiology | 0 | 1,141 | -1,141 |
| 210 | Class Lab | 0403 | Microbiology | 1,350 | 0 | 1,350 |
| 210 | Class Lab | 0407 | Zoology, General | 0 | 1,141 | -1,141 |
| 210 | Class Lab | 0407 | Zoology, General | 1,350 | 0 | 1,350 |
| 210 | Class Lab | 0410 | Anatomy and Physiology | 0 | 2,282 | -2,282 |
| 210 | Class Lab | 0410 | Anatomy and Physiology | 4,050 | 0 | 4,050 |
| 210 | Class Lab | 0430 | Biotechnology and Biomedical Technology | 1,350 | 0 | 1,350 |
| 210 | Class Lab | 0430 | Biotechnology and Biomedical Technology | 0 | 883 | -883 |
| 210 | Class Lab | 1255 | Mortuary Science | 0 | 1,346 | -1,346 |
| 210 | Class Lab | 1905 | Chemistry, General | 0 | 9,187 | -9,187 |
| 210 | Class Lab | 1905 | Chemistry, General | 10,800 | 0 | 10,800 |
| 210 | Class Lab | 1914 | Geology | 0 | 2,205 | -2,205 |
| 210 | Class Lab | 1914 | Geology | 3,750 | 0 | 3,750 |
| 210 | Class Lab | 4900 | Interdisciplinary Studies | 0 | 10,469 | -10,469 |
| 215 | Class Lab Service | 0400 | Biological Sciences | 0 | 460 | -460 |
| 215 | Class Lab Service | 0401 | Biology, General | 2,900 | 0 | 2,900 |
| 215 | Class Lab Service | 0401 | Biology, General | 0 | 1,474 | -1,474 |
| 215 | Class Lab Service | 0410 | Anatomy and Physiology | 450 | 0 | 450 |
| 215 | Class Lab Service | 1905 | Chemistry, General | 3,350 | 0 | 3,350 |
| 215 | Class Lab Service | 1905 | Chemistry, General | 0 | 1,896 | -1,896 |
| 215 | Class Lab Service | 1914 | Geology | 0 | 36 | -36 |
| 215 | Class Lab Service | 1914 | Geology | 200 | 0 | 200 |
| 215 | Class Lab Service | 4900 | Interdisciplinary Studies | 0 | 1,376 | -1,376 |
| 225 | Special Class Lab Service | 1905 | Chemistry, General | 0 | 295 | -295 |
| 310 | Office | 0099 | General Assignment | 0 | 2,008 | -2,008 |
| 310 | Office | 0099 | General Assignment | 3,970 | 0 | 3,970 |
| 310 | Office | 0099 | General Assignment | 0 | 3,043 | -3,043 |

| | | | | | | |
|--------------|--------------------------|------|--|---------------|---------------|----------------|
| 310 | Office | 0401 | Biology, General | 0 | 214 | -214 |
| 310 | Office | 1905 | Chemistry, General | 0 | 1,379 | -1,379 |
| 315 | Office Service | 0099 | General Assignment | 0 | 657 | -657 |
| 315 | Office Service | 0099 | General Assignment | 80 | 0 | 80 |
| 410 | Read/Study Room | 6110 | Learning Center (Learning Resource Center) | 500 | 0 | 500 |
| 540 | Clinic St Care | 6310 | Counseling Services | 0 | 1,374 | -1,374 |
| 580 | Greenhouse | 0402 | Botany, General | 1,100 | 0 | 1,100 |
| 580 | Greenhouse | 0402 | Botany, General | 0 | 717 | -717 |
| 585 | Greenhouse Service | 0401 | Biology, General | 0 | 427 | -427 |
| 585 | Greenhouse Service | 0402 | Botany, General | 100 | 0 | 100 |
| 620 | Exhibition | 6140 | Museums and Galleries | 440 | 0 | 440 |
| 625 | Exhibition Service | 6140 | Museums and Galleries | 100 | 0 | 100 |
| 640 | Lactation Room | 0099 | General Assignment | 100 | 0 | 100 |
| 650 | Lounge | 0099 | General Assignment | 900 | 0 | 900 |
| 650 | Lounge | 0099 | General Assignment | 0 | 94 | -94 |
| 680 | Meeting Room | 0099 | General Assignment | 160 | 0 | 160 |
| 710 | Data Processing/Computer | 4900 | Interdisciplinary Studies | 0 | 46 | -46 |
| 710 | Data Processing/Computer | 6780 | Management Information Services | 300 | 0 | 300 |
| 730 | Storage | 6510 | Building Maintenance and Operation Support | 100 | 0 | 100 |
| TOTAL | - | - | | 42,800 | 54,762 | -11,962 |

| DISTRICT Los Rios Community College District | | | CAMPUS American River College | | |
|--|--------------------------|---|-------------------------------|------------------------------|--------------------------|
| Project Name: Science Replacement Modernization | | Date Prepared: 4/29/2026 | Estimate CCI: 10258 | | CFIS Ref. #: |
| Prepared By: Suniya 360 | | Estimate EPI: 5860 | | Budget Ref. #: | |
| | Total Cost | State Funded | District Funded | | |
| | | | Supportable | Non Supportable | |
| 1. SITE ACQUISITION (CCI: 10258) | \$0 | \$0 | \$0 | \$0 | |
| 2. PRELIMINARY PLANS (CCI: 10258) | \$3,757,201 | \$1,439,906 | \$1,439,906 | | \$877,388 |
| 2 - A. Architectural Fees for Preliminary Plans | \$2,400,043 | | | | \$646,496 |
| 2 - B. Project Management for Preliminary Plans | \$857,158 | | | | \$230,892 |
| 2 - C. Division of the State Architect Plan Check Fee | \$0 | | | | \$0 |
| 2 - D. Preliminary Test (Soils Test, Geotech Report, Hazardous Material, Etc.) | \$200,000 | | | | \$0 |
| 2 - E. Other Costs (Special Consultants, Printing, Legal, Etc.) | \$300,000 | | | | \$0 |
| 3. WORKING DRAWINGS (CCI: 10258) | \$3,834,961 | \$1,424,637 | \$1,424,637 | | \$985,687 |
| 3 - A. Architectural Fees for Working Drawings | \$2,742,906 | | | | \$738,853 |
| 3 - B. Project Management for Working Drawings | \$0 | | | | \$0 |
| 3 - C. Division of the State Architect Plan Check Fee | \$597,153 | | | | \$180,865 |
| 3 - D. Community Colleges Plan Check Fee | \$244,902 | | | | \$65,969 |
| 3 - E. Other Costs (Special Consultants, Printing, Legal, Etc.) | \$250,000 | | | | \$0 |
| (Total PW may not exceed 13% of construction) | \$0 | | | | \$0 |
| 4. CONSTRUCTION - HARD COSTS (CCI: 10258) | \$85,715,808 | \$34,294,662 | \$28,331,993 | | \$23,089,153 |
| 4 - A. Utility Service | \$3,141,275 | | | | \$0 |
| 4 - B. Site Development - Service | \$1,690,955 | | | | \$0 |
| 4 - C. Site Development - General | \$2,139,158 | | | | \$0 |
| 4 - D. Site Development - Other | \$1,604,232 | | | | \$0 |
| 4 - E. Reconstruction | \$0 | | | | \$0 |
| 4 - F. New Construction (Building) (w/Group 1 equip) | \$51,768,270 | | | | \$0 |
| 4 - G. Board of Governor's Energy Policy Allowance (2% or 3%) | \$1,035,365 | | | | \$0 |
| 4 - H. Other | \$24,336,553 | | | | \$23,089,153 |
| 5. CONTINGENCY (CCI: 10258) | \$4,285,790 | \$1,565,666 | \$1,565,666 | | \$1,154,458 |
| 5. Contingency | \$4,285,790 | | | | \$1,154,458 |
| 6. ARCHITECTURAL AND ENGINEERING OVERSIGHT (CCI: 10258) | \$1,714,316 | \$626,267 | \$626,267 | | \$461,783 |
| 6. Architectural and Engineering Oversight | \$1,714,316 | | | | \$461,783 |
| 7. TESTS AND INSPECTIONS (CCI: 10258) | \$1,525,318 | \$557,223 | \$557,223 | | \$410,873 |
| A. Tests | \$857,158 | | | | \$0 |
| B. DSA Inspections | \$668,160 | | | | \$0 |
| 8. CONSTRUCTION MANAGEMENT (CCI: 10258) | \$1,714,316 | \$626,267 | \$626,267 | | \$461,783 |
| 8. Construction Management | \$1,714,316 | | | | \$461,783 |
| 9. TOTAL CONSTRUCTION (Items 4 through 8) (CCI: 10258) | \$94,955,549 | \$37,670,084 | \$31,707,415 | | \$25,578,050 |
| Total Construction Costs | \$94,955,549 | | | | \$25,578,050 |
| 10. FURNITURE AND GROUP II EQUIPMENT (EPI: 5860) | \$5,138,689 | \$0 | \$5,138,689 | | \$0 |
| 10 - A. Furniture and Group II Equipment | \$5,138,689 | | | | \$0 |
| 11. Total Project Costs (Items 1, 2, 3, 9, and 10) | \$107,686,400 | \$40,534,627 | \$39,710,648 | | \$27,441,125 |
| 12. Project Data | Gross Square Feet | Assignable Square Feet | ASF:GSF Ratio | Unit Cost Per ASF | Unit Cost Per GSF |
| New Construction | 69,000 | 42,800 | 62% | \$1,209.54 | \$750.26 |
| Reconstruction | 0 | 0 | 0% | \$0.00 | \$0.00 |
| 13. Anticipated Time Schedule | | | | | |
| Start Preliminary Plans | 10/1/2028 | Advertise Bid for Construction | 9/1/2030 | | |
| Start Working Drawings | 4/1/2029 | Award Construction Contract | 1/1/2031 | | |
| Complete Working Drawings | 11/1/2029 | Advertise Bid for Equipment | 12/1/2031 | | |
| DSA Final Approval | 8/1/2030 | Complete Project and Notice of Completion | 8/1/2033 | | |
| 14. | State Funded | District Funded | | District Funded Total | |
| | | Supportable | Non Supportable | | |
| Preliminary Plans | \$1,439,906 | \$1,439,906 | \$877,388 | \$2,317,294 | |
| Working Drawings | \$1,424,637 | \$1,424,637 | \$985,687 | \$2,410,324 | |
| Construction | \$37,670,084 | \$31,707,415 | \$25,578,050 | \$57,285,465 | |
| Equipment | \$0 | \$5,138,689 | \$0 | \$5,138,689 | |
| Total Costs | \$40,534,627 | \$39,710,648 | \$27,441,125 | \$67,151,773 | |

FUSION**JCAF32 Cost Estimate Summary**

| | | | | |
|---------------|--------|--------|---------------|---------------|
| % of SS Costs | 37.64% | 62.36% | Project Total | \$107,686,400 |
| Points % Calc | 49.87% | 50.13% | SS Total | \$80,245,275 |

Report Generated: 4/29/2026

FUSION

JCAF32 Cost Estimate Summary QUC

| DISTRICT Los Rios Community College District | | CAMPUS American River College | | |
|---|--------------------------|-------------------------------|--------------------|------------------|
| Project Name: Science Replacement Modernization | Date Prepared: 4/29/2026 | Estimate CCI: 10258 | CFIS Ref. #: | |
| | Prepared By: Suniya 360 | Estimate EPI: 5860 | Budget Ref. #: | |
| | Total Cost | State Funded | District Funded | |
| | | | Supportable | Non Supportable |
| 1. SITE ACQUISITION (CCI: 10258) | \$0 | \$0 | \$0 | \$0 |
| 2. PRELIMINARY PLANS (CCI: 10258) | \$3,757,201 | \$1,439,906 | \$1,439,906 | \$877,388 |
| 2 - A. Architectural Fees for Preliminary Plans | \$2,400,043 | | | \$646,496 |
| 1. Architect fee for Schematic and Preliminary plans - New Construction NewConst x 8.0% x 35.0% | \$2,400,043 | | | \$0 |
| 2. Architect fee for Schematic and Preliminary plans - ReConstruction ReConst x 10.0% x 35.0% | \$0 | | | \$0 |
| 2 - B. Project Management for Preliminary Plans | \$857,158 | | | \$230,892 |
| 1. Project Administration/Management TotalConst * 1.0% | \$857,158 | | | \$0 |
| 2 - C. Division of the State Architect Plan Check Fee | \$0 | | | \$0 |
| 1. Structural Safety Fee | \$0 | | | \$0 |
| 2. Fire, Life Safety Fee | \$0 | | | \$0 |
| 3. Access Compliance Fee | \$0 | | | \$0 |
| 2 - D. Preliminary Test (Soils Test, Geotech Report, Hazardous Material, Etc.) | \$200,000 | | | \$0 |
| IPP Estimate for Topographic Survey, Utility Location, Hyrdology Testing, CEQA Documents, Geotechnical Testing & Reports | \$200,000 | | | \$0 |
| 2 - E. Other Costs (Special Consultants, Printing, Legal, Etc.) | \$300,000 | | | \$0 |
| IPP Estimate for 3rd Party Estimate , LEED Green Code Commissioning Consultant, Acoustical Consultant, Lab Consultant, Hazardous Materials Consultant | \$300,000 | | | \$0 |
| 3. WORKING DRAWINGS (CCI: 10258) | \$3,834,961 | \$1,424,637 | \$1,424,637 | \$985,687 |
| 3 - A. Architectural Fees for Working Drawings | \$2,742,906 | | | \$738,853 |
| 1. Architect fee for Schematic and Working Drawings- New Construction NewConst x 8.0% x 40.0% | \$2,742,906 | | | \$0 |
| 2. Architect fee for Schematic and Working Drawings - ReConstruction ReConst x 10.0% x 40.0% | \$0 | | | \$0 |
| 3 - B. Project Management for Working Drawings | \$0 | | | \$0 |
| 1. Project Administration/Management TotalConst * 1.0% | \$0 | | | \$0 |
| 3 - C. Division of the State Architect Plan Check Fee | \$597,153 | | | \$180,865 |
| 1. Structural Safety Fee | \$465,115 | | | \$0 |
| 2. Fire, Life Safety Fee | \$61,358 | | | \$0 |
| 3. Access Compliance Fee | \$70,679 | | | \$0 |
| 3 - D. Community Colleges Plan Check Fee | \$244,902 | | | \$65,969 |

FUSION

JCAF32 Cost Estimate Summary QUC

| | | | | |
|---|---------------------|---------------------|---------------------|---------------------|
| 1. Community Colleges Plan Check Fee (2/7 of 1% of Construction Cost) 2/7 of 1% of Construction Cost | \$244,902 | | | \$0 |
| 3 - E. Other Costs (Special Consultants, Printing, Legal, Etc.) | \$250,000 | | | \$0 |
| IPP Estimate for 3rd Party Estimate , LEED Green Code Commissioning Consultant, Constructability Review, Legal Services, Printing & Advertising | \$250,000 | | | \$0 |
| (Total PW may not exceed 13% of construction) | \$0 | | | \$0 |
| | | | | |
| 4. CONSTRUCTION - HARD COSTS (CCI: 10258) | \$85,715,808 | \$34,294,662 | \$28,331,993 | \$23,089,153 |
| 4 - A. Utility Service | \$3,141,275 | | | \$0 |
| FPP Estimate | \$3,141,275 | | | \$0 |
| 4 - B. Site Development - Service | \$1,690,955 | | | \$0 |
| FPP Estimate | \$1,690,955 | | | \$0 |
| 4 - C. Site Development - General | \$2,139,158 | | | \$0 |
| FPP Estimate | \$2,139,158 | | | \$0 |
| 4 - D. Site Development - Other | \$1,604,232 | | | \$0 |
| FPP Estimate | \$1,604,232 | | | \$0 |
| 4 - E. Reconstruction | \$0 | | | \$0 |
| Reconstruction from JCAF31 Reconstruction from JCAF31 | \$0 | | | \$0 |
| 4 - F. New Construction (Building) (w/Group 1 equip) | \$51,768,270 | | | \$0 |
| New Construction from JCAF31 New construction from JCAF31 | \$51,768,270 | | | \$0 |
| 4 - G. Board of Governor's Energy Policy Allowance (2% or 3%) | \$1,035,365 | | | \$0 |
| Energy Incentive (2% of New Building Costs) NewConstruction x 2.0% | \$1,035,365 | | | \$0 |
| Energy Incentive (3% of Renovated Building Costs) ReConstruction x2 .0% | \$0 | | | \$0 |
| 4 - H. Other | \$24,336,553 | | | \$23,089,153 |
| PV / Battery on roof | \$1,247,400 | | | \$0 |
| Difference between FPP Building Estimate and FUSION Estimate | \$23,089,153 | | | \$0 |
| 5. CONTINGENCY (CCI: 10258) | \$4,285,790 | \$1,565,666 | \$1,565,666 | \$1,154,458 |
| 5. Contingency | \$4,285,790 | | | \$1,154,458 |
| A. Contingency - New Construction TotalConst * 5.0% | \$4,285,790 | | | \$0 |
| B. Contingency - Reconstruction ReConst * 7.0% | \$0 | | | \$0 |
| 6. ARCHITECTURAL AND ENGINEERING OVERSIGHT (CCI: 10258) | \$1,714,316 | \$626,267 | \$626,267 | \$461,783 |
| 6. Architectural and Engineering Oversight | \$1,714,316 | | | \$461,783 |
| A. New Construction TotalConst * 8.0% * 25.0% | \$1,714,316 | | | \$0 |
| B. Reconstruction ReConst * 10.0% * 25.0% | \$0 | | | \$0 |

FUSION

JCAF32 Cost Estimate Summary QUC

| | | | | | |
|---|--------------------------|---|------------------------|------------------------------|--------------------------|
| 7. TESTS AND INSPECTIONS (CCI: 10258) | | \$1,525,318 | \$557,223 | \$557,223 | \$410,873 |
| 7. Tests and Inspections | | \$1,525,318 | | | \$410,873 |
| A. Tests TotalConst * 1.0% | | \$857,158 | | | \$0 |
| B. DSA Inspections () | | \$668,160 | | | \$0 |
| 8. CONSTRUCTION MANAGEMENT (CCI: 10258) | | \$1,714,316 | \$626,267 | \$626,267 | \$461,783 |
| 8. Construction Management | | \$1,714,316 | | | \$461,783 |
| A. Construction Management TotalConst * 2.0% | | \$1,714,316 | | | \$0 |
| 9. TOTAL CONSTRUCTION (Items 4 through 8) (CCI: 10258) | | \$94,955,549 | \$37,670,084 | \$31,707,415 | \$25,578,050 |
| Total Construction Costs | | \$94,955,549 | | | \$25,578,050 |
| 10. FURNITURE AND GROUP II EQUIPMENT (EPI: 5860) | | \$5,138,689 | \$0 | \$5,138,689 | \$0 |
| 10 - A. Furniture and Group II Equipment | | \$5,138,689 | | | \$0 |
| 11. Total Project Costs (Items 1, 2, 3, 9, and 10) | | \$107,686,400 | \$40,534,627 | \$39,710,648 | \$27,441,125 |
| 12. Project Data | Gross Square Feet | Assignable Square Feet | ASF:GSF Ratio | Unit Cost Per ASF | Unit Cost Per GSF |
| New Construction | 69,000 | 42,800 | 62% | \$1,209.54 | \$750.26 |
| Reconstruction | 0 | 0 | 0% | \$0.00 | \$0.00 |
| 13. Anticipated Time Schedule | | | | | |
| Start Preliminary Plans | 10/1/2028 | Advertise Bid for Construction | 9/1/2030 | | |
| Start Working Drawings | 4/1/2029 | Award Construction Contract | 1/1/2031 | | |
| Complete Working Drawings | 11/1/2029 | Advertise Bid for Equipment | 12/1/2031 | | |
| DSA Final Approval | 8/1/2030 | Complete Project and Notice of Completion | 8/1/2033 | | |
| 14. | State Funded | District Funded | | District Funded Total | |
| | | Supportable | Non Supportable | | |
| Preliminary Plans | \$1,439,906 | \$1,439,906 | \$877,388 | \$2,317,294 | |
| Working Drawings | \$1,424,637 | \$1,424,637 | \$985,687 | \$2,410,324 | |
| Construction | \$37,670,084 | \$31,707,415 | \$25,578,050 | \$57,285,465 | |
| Equipment | \$0 | \$5,138,689 | \$0 | \$5,138,689 | |
| Total Costs | \$40,534,627 | \$39,710,648 | \$27,441,125 | \$67,151,773 | |
| % of SS Costs | 37.64% | 62.36% | Project Total | \$107,686,400 | |
| Points % Calc | 49.87% | 50.13% | SS Total | \$80,245,275 | |

Report Generated: 4/29/2026

6.1 BOARD OF GOVERNORS ENERGY AND SUSTAINABILITY POLICY

This project will be designed to exceed Title 24, Part 6 Energy Code by 15%, consistent with the Board of Governors Energy and Sustainability policy. The design should incorporate sustainable goals for site, energy efficiency, water use reduction, storm water management, occupant health as well as minimizing the buildings impact on the environment both by design and construction. Strategies that will be considered:

- Natural and native planting materials may be incorporated around the building to minimize, if not eliminate, the irrigation demand.
- Concrete walkways may be minimized to reduce storm water runoff and promote natural filtration into the soil as well as a reduction in the heat island effect.
- Overhangs will be incorporated to shade glazing.
- Low E dual glazing will be incorporated to reduce heat gain.
- Roofing will incorporate cool roofing to reduce the heat island effect and heat gain.
- Heating and cooling will be provided by a highly energy efficient HVAC system.
- HVAC controls designed to maximize efficiency will be provided where applicable.
- Natural lighting will be incorporated into most spaces.
- Energy saving lighting will include automatic lighting controls and sensors.
- Interior materials may be low in volatile organic compounds, high in recycled content.
- Water efficient fixtures, faucets and devices will be incorporated.
- A strict recycling program may be required during construction.
- May request participation in the local utility's energy incentive program, if available.
- Photovoltaic panels and battery storage will be incorporated.
- Durable systems and finishes with long life cycles that minimize maintenance and replacement.
- Optimization of indoor environmental quality for occupants with high efficiency industrial ventilation.
- Utilization of environmentally preferable products and processes, such as recycled content materials and recyclable materials.
- Procedures that monitor, trend and report operational performance as compared to the optimal design and operating parameters to the campus' central energy management system.
- Space may be provided throughout the building to support an active recycling program.

STATE OF CALIFORNIA
Capital Outlay Budget Change Proposal (COBCP) - Cover Sheet
 DF-151 (REV 07/21)

| | | | |
|-------------------------------|------------------------------|--|---------------------|
| Fiscal Year 2028-29 | Business Unit 6870 | Department Board of Governors, California Community Colleges | Priority No. |
|-------------------------------|------------------------------|--|---------------------|

| | | |
|--|--|----------------------------------|
| Budget Request Name 6870-301-COBCP-2026-XX | Capital Outlay Program ID 5680 | Capital Outlay Project ID |
|--|--|----------------------------------|

Project Title
 Los Rios Community College District, American River College, Science Replacement Modernization

Project Status and Type
 Status: New Continuing Type: Major Minor

Project Category (Select one)

| | | | |
|--|---|---|---|
| <input type="checkbox"/> CRI <i>(Critical Infrastructure)</i> | <input type="checkbox"/> WSD <i>(Workload Space Deficiencies)</i> | <input type="checkbox"/> ECP <i>(Enrollment Caseload Population)</i> | <input type="checkbox"/> SM <i>(Seismic)</i> |
| <input type="checkbox"/> FLS <i>(Fire Life Safety)</i> | <input checked="" type="checkbox"/> FM <i>(Facility Modernization)</i> | <input type="checkbox"/> PAR <i>(Public Access Recreation)</i> | <input type="checkbox"/> RC <i>(Resource Conservation)</i> |

| | | |
|---|-------------------------------------|---|
| Total Request (in thousands) \$40,535 | Phase(s) to be Funded PWC | Total Project Cost (in thousands) \$107,686 |
|---|-------------------------------------|---|

Budget Request Summary

The Los Rios Community College District American River College Science Replacement Modernization Project will demolish the 68-year-old Science building, the Science Offices building, the Science Portables, and the Swing Space Portables, totalling 54,762 assignable square feet (ASF), to construct a new permanent two-story replacement facility on the current Swing Space Portables site. The new replacement building will house a total of 42,800 ASF and 69,000 GSF, resulting in a net reduction of 11,962 ASF. The new Science Replacement facility total ASF includes 1,350 ASF of Lecture space (a reduction of 5,273 ASF), 33,600 ASF of Laboratory space (a reduction of 4,580 ASF), 4,050 ASF of Office space (a reduction of 3,251 ASF), 500 ASF of Library space, and 3,300 ASF of Other support space. The existing Science building has a Facilities Condition Index (FCI) of 139.43%, and the Science Portables have an FCI of 166.32%, making a new permanent replacement facility the least cost solution.

| | | |
|--|---|----------------------|
| Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Code Section(s) to be Added/Amended/Repealed | CCCI 10258 |
|--|---|----------------------|

| | |
|---|--|
| Requires Provisional Language <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Budget Package Status <input type="checkbox"/> Needed <input checked="" type="checkbox"/> Not Needed <input type="checkbox"/> Existing |
|---|--|

Impact on Support Budget

| | |
|--|---|
| One-Time Costs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Swing Space Needed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Future Savings <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Generate Surplus Property <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Future Costs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |

If proposal affects another department, does other department concur with proposal? Yes No

Attach comments of affected department, signed and dated by the department director or designee.

| | | | |
|----------------------------|-------------|-------------------------|-------------|
| Prepared By | Date | Reviewed By | Date |
| Department Director | Date | Agency Secretary | Date |

| | |
|---|--|
| Principal Program Budget Analyst | Date submitted to the Legislature |
|---|--|

A. COBCP Abstract:

Los Rios Community College District, American River College Science Replacement Modernization Project - \$40,535,000 for the state share of preliminary plans, working drawings, and construction. The project demolishes the 68-year-old Science building, the Science Offices building, the Science Portables, and the Swing Space Portables, and constructs a new two-story, 69,000 Gross Square Feet, Science Building with associated site costs. The total project costs are estimated at \$107,686,000 (\$80,245,000 state supportable, \$27,441,000 non-state supportable) including preliminary plans \$3,757,000, working drawings \$3,835,000, construction \$94,955,000 and equipment \$5,139,000. The construction amount includes \$85,716,000 for the construction contract, \$4,286,000 for contingency, \$1,714,000 for architectural & engineering services, \$1,525,000 for tests & inspections, and \$1,714,000 for construction management. The current project schedule estimates Preliminary Plans will begin in October 2028 and be completed in March 2029. The Working Drawings are estimated to begin in April 2029 and will be completed in November 2029. Construction is scheduled to begin in January 2031 and will be completed in August 2033.

B. Purpose of the Project:

The California Community Colleges Board of Governors (BOG) has adopted priority funding categories and a scoring system to assist community college districts in their capital planning efforts so that capital outlay project proposals reflect the state's priorities. The BOG's priority funding categories give reference to projects that best meet the following priorities: life and safety, growth, and modernization. The proposed project successfully met the BOG's modernization priority and has received a high score.

Based on 2024-2025 Chancellor's Office data, American River College annually had 47,058 students enrolled in its instructional programs, 49 percent of whom are low-income. In Fall 2025, American River College had 642 full-time equivalent campus employees providing administrative services, student services, and instruction. There are 76 full-time equivalent campus employees who directly serve the programs associated with the proposed project. Los Rios Community College District and American River College are located in the greater Sacramento Region (CCD North region), which is not identified as a region of low performance in the California Community College Vision for Success.

The American River College Science Replacement Modernization Project includes demolition of the existing Swing Space Portables and the associated site area. After the new facility is built and occupied, the existing Science building, Science Offices building, and Science Portables will also be demolished, resulting in a net removal of 11,962 assignable square feet from the campus. The project supports multiple instructional and career technical programs, including Anatomy & Physiology, Biotechnology, Biological Psychology, Botany, General Biology, Microbiology, Zoology, Biological Chemistry, General Chemistry, Organic Chemistry, Earth Science, Geology, Geography, Geographic Information Systems, Oceanography, and Natural History. In Fall 2025, 5,012 students were enrolled in these courses, with another 2,289 students on the waiting list.

Los Rios CCD will demolish two buildings and multiple portables, and replace them with a new two-story building with 42,800 Assignable Square Feet (ASF) comprising primarily Laboratory and office space, and one lecture space adjacent to the Chemistry labs equipped with a demonstration bench and fume hood. By housing all of these programs within one permanent building, the new Science Replacement Modernization facility will improve instructional and campus efficiencies and operations, be equipped with adequate capacity and code-compliant infrastructure and technology, and provide labs configured to accommodate more students while meeting the required accessibility and laboratory safety codes.

The existing Science building was constructed in 1958 and has not benefited from any significant renovations in the last 68 years. It contains the original building systems that no longer support laboratory-based programs, both in capacity and types of building systems required by current codes. The Science Portables house three Biology Labs that are inefficient to operate due to a lack of proximity to their lab support space. According to the latest FUSION assessment, the Science building has a Facilities Condition Index (FCI) of 139.43%, and the Science Portables have an FCI of 166.32%, making a new permanent replacement facility the least cost solution.

Programmatic Issues, Physical and Infrastructure Deficiencies

The existing Science programs are distributed across multiple buildings and portables, separating Biology labs and Anatomy & Physiology labs from prep and storage areas, slowing response times and creating staffing inefficiencies during lab activities and emergencies, all of which interfere with teaching and student learning. Chemistry labs also lack required adjacencies since the instrument rooms are not contiguous to Organic Chemistry labs, and the lecture classroom with the fume hood and demonstration bench is not adjacent to the Chemistry prep area, resulting in unnecessary faculty and staff movement, as well as potential exposure to chemicals for faculty, staff, and students.

The size and physical configuration of the existing labs make them unable to accommodate more students and make them non-compliant with current lab safety standards, accessibility code requirements, and modern teaching practices, constraining the instructors' ability to teach and support students effectively. In addition to lacking the correct accessibility and safety clearances around lab equipment and lab benches, safety equipment such as eyewash stations and emergency shutoffs is not accessible and often not clearly visible. The labs also lack the necessary technology, electrical capacity, and space clearances required by current technology-based instruction and equipment, such as mobile digital cadaver tables and simulators.

All building infrastructure systems for the existing Science building (mechanical, electrical, plumbing, fire alarm, elevators, windows, roofs, etc.) are original to the building and well beyond their useful life, as the latest FUSION assessment details. The existing electrical systems cannot keep up with normal lab usage, with breakers frequently tripping when multiple devices are used simultaneously. Technological capacity is also limited, making classroom and lab technology unreliable. These infrastructure issues cause interruptions in teaching delivery and student instruction, hampering student success.

The existing mechanical systems do not meet current code requirements for ventilation, both inside and outside the building. Chemicals and formaldehyde odors linger in lab spaces that house fume hoods and where students work with cadavers, and there is a lack of localized exhaust systems (snorkels, spot extractors) at lab bench locations where fumes are generated during experiments. This limited ventilation capacity makes certain experiments unsafe to perform as intended and often requires excess supervision. In addition, the exterior exhaust system is undersized, and the venting stacks are not tall enough to meet current code requirements for the safe dispersal of hazardous fumes and toxic vapors from building occupants and building air intakes.

Buehler Engineering, a certified structural engineering firm, conducted an ASCE 41 Tier 1 Structural Evaluation of the Science Building and Science Office building in April 2026. Based on the firm's evaluation, a number of areas in the existing buildings are seismically deficient. These include the need to add anchorage at the shear walls to adequately transfer the seismic load, and the need to remove the existing roofing to upgrade the roof diaphragm to address both the load transfers at the locations where the roof framing changes direction and the lack of roof diaphragm continuity. If the buildings were renovated, it would be necessary to perform these seismic upgrades to meet code requirements. In addition, a renovation would also trigger the replacement of mechanical systems,

including the currently non-code-compliant exhaust systems, which means that more than half of the roof area, along with the walls that support that portion of the roof, would also need to be strengthened to accommodate the heavier exhaust units, ducting, and taller stacks on the roof. The cost estimate for the seismic portion of the existing building renovation is \$3,839,265 (CCCI 10258).

The Science Portables are also beyond their useful life, and if the existing buildings were renovated, they would either need to be replaced with new portables or an addition to the 1958 Science Building would need to be built to locate these required labs adjacent to the other Biology labs and prep space.

The proposed new Science Replacement Modernization project will address all of these issues, providing a code-compliant, efficiently designed science building housing appropriately configured and safe laboratories equipped with robust infrastructure and technology to better meet the needs of students and faculty to teach, learn, study, collaborate, and succeed.

Solution Criteria

To mitigate the current programmatic, physical, and infrastructure problems, the district seeks a permanent, least cost solution that meets the following criteria:

- Cost - is the least cost solution that permanently accommodates science lab space without impacting the campus operational budget.
- Educational Impact 1 – provides instructional and support spaces that are appropriately sized and configured for the successful delivery of instruction and learning, while increasing the number of students served.
- Educational Impact 2 – provides building infrastructure that supports the electrical and technological needs of the instructional programs.
- Campus Integration – is consistent with the College's Educational, Strategic, and Facilities Master Plans goals and objectives, and is included in the Facilities Master Plan.
- Campus Safety/Security – provides a facility designed to current applicable building and lab codes, including life safety, access, structural integrity, and mechanical ventilation, and provides a safe environment for students, faculty, and staff.
- Energy Efficiency – improves campus energy efficiency, decreases maintenance and operational costs (total cost of ownership), and promotes sustainability.

C. Relationship to the Strategic Plan:

The American River College (CRC) Science Replacement Modernization Project seeks to advance the goals of the California Community Colleges Vision for Success, an effort to improve student success, increase students' transfer to four-year institutions, and build robust career technical education programs. This project is the number one priority for American River College as identified in both the College's 2025 Facilities Master Plan and the District's 5-Year Capital Outlay Plan.

Building a new Science Replacement Modernization facility will help meet the key priorities outlined in the College's 2020-2031 Educational Master Plan, which seeks to remove barriers, facilitate equitable access, success, and on-time completion, and provide innovative and sustainable technology and facilities that support flexible learning and engagement for American River College's diverse campus communities. The new Science Replacement Modernization facility will meet current code, remove accessibility barriers, integrate the latest technology infrastructure, and provide safe laboratory environments. It will also increase on-time completion by accommodating more students in the same number of laboratories, thereby enhancing students' ability to meet their educational and workforce

goals. Currently, the demand for these courses far exceeds capacity, with 2,289 students on the waiting list for Fall 2025. This project proposes to increase the number of students accommodated in the Biology labs from 21 to 30, in the Organic Chemistry labs from 18 to 24, and in the General Chemistry labs from 24 to 28, with similar increases in the Geology labs.

Consistent with the State's Board of Governors' Energy and Sustainability Policy and the District's own Sustainability Plan, not only will the new Science Replacement Modernization facility be more energy efficient, water efficient, and sustainable, but the Science Replacement Modernization Project will also further reduce the district's maintenance and operational costs through the removal of aged buildings and the removal of 11,962 excess assignable space.

D. Alternatives:

Three alternatives were analyzed to address the problems discussed above:

- Alternative 1 - Construct a new Replacement Science Building
- Alternative 2 - Modernize existing Science Building & Science Offices and Replace Science Portables with an Addition to Science Building
- Alternative 3 - Lease Off-site Facilities

Alternative 1

This option demolishes the 39,213 Gross Square Feet (GSF) 68-year-old Science building, the 4,815 GSF Science Offices, the 5,533 GSF Science Portables, and the 23,454 GSF Swing Space Portables, and constructs a new permanent two-story 69,000 GSF Science Replacement Modernization facility on the current Swing Space Portables site. The New Science Replacement Modernization building will house a total of 42,800 Assignable Square Feet (ASF), and includes 1,350 ASF of Lecture space, 33,600 ASF of Laboratory space, 4,050 ASF of Office space, 500 ASF of Library space, and 3,300 ASF of Other support space.

The total estimated cost at CCI 10258 and EPI 5860 is \$107,686,000.

Pros:

- Cost - is the least cost solution that permanently accommodates science lab space without impacting the campus operational budget.
- Educational Impact 1 – provides instructional and support spaces that are appropriately sized and configured for the successful delivery of instruction and learning, while increasing the number of students served.
- Educational Impact 2 – provides building infrastructure that supports the electrical and technological needs of the instructional programs.
- Campus Integration – is consistent with the College's Educational, Strategic, and Facilities Master Plans goals and objectives, and is included in the Facilities Master Plan.
- Campus Safety/Security – provides a facility designed to current applicable building and lab codes, including life safety, access, structural integrity, and mechanical ventilation, and provides a safe environment for students, faculty, and staff.
- Energy Efficiency – improves campus energy efficiency, decreases maintenance and operational costs (total cost of ownership), and promotes sustainability.

Cons:

- None.

Alternative 2

This option involves modernizing and seismically retrofitting the 39,213 Gross Square Feet (GSF) 68-year-old Science building and the 4,815 GSF Science Offices, and replacing the 5,533 GSF Science Portables with a permanent 5,533 GSF addition to the Science building, for a total of 49,561 GSF. Since the Science building was built in 1958 and consists of wood framing, a significant portion of the framing may be structurally compromised and will need to be replaced. In addition, the modernization would require hazardous materials abatement and a complete overhaul of all systems to meet current building, energy, and laboratory codes, including mechanical, electrical, fire alarm, fire sprinklers, exterior glazing, roofing, etc., as well as utility upgrades and associated site work for both utilities and the addition portion of the project. The modernization would include a structural seismic upgrade and the cost estimate for the seismic portion of the existing building renovation is \$3,839,265 (CCCI 10258).

The total estimated cost at CCI 10258 and EPI 5860 is \$109,035,000.

Pros:

- Educational Impact 2 – provides building infrastructure that supports the electrical and technological needs of the instructional programs.
- Campus Safety/Security – provides a facility designed to current applicable building and lab codes, including life safety, access, structural integrity, and mechanical ventilation, and provides a safe environment for students, faculty, and staff.

Cons:

- Cost - is not the least cost solution that permanently accommodates science lab space without impacting the campus operational budget.
- Educational Impact 1 – does not provide instructional and support spaces that are appropriately sized and configured for the successful delivery of instruction and learning, and does not increase the number of students served.
- Campus Integration – is not consistent with the College's Educational, Strategic, and Facilities Master Plans goals and objectives, and is not included in the Facilities Master Plan.
- Energy Efficiency – may improve campus energy efficiency, but it does not decrease maintenance and operational costs (total cost of ownership), and does not promote sustainability.

Alternative 3

This option involves locating 69,000 Gross Square Feet of leased space close to the campus that could accommodate the instructional spaces, the majority of which are science labs, along with the necessary parking for student, faculty and staff. Finding this space close to campus will be challenging and will create undue hardships for the students, as they will need to travel between the leased site and the main campus where the majority of lectures associated with science take place. The leased space will also need tenant improvements and will house a total of 42,800 Assignable Square Feet (ASF), and includes 1,350 ASF of Lecture space, 33,600 ASF of Laboratory space, 4,050 ASF of Office space, 500 ASF of Library space, and 3,300 ASF of Other support space.

The total estimated cost at CCI 10258 and EPI 5860 is \$150,038,700.

Pros:

- Educational Impact 2 – provides building infrastructure that supports the electrical and technological needs of the instructional programs.

Cons:

- Cost - is not the least cost solution that permanently accommodates science lab space without impacting the campus operational budget.
- Educational Impact 1 – as a leased space it will probably be limited in its ability to provide instructional and support spaces that are appropriately sized and configured for the successful delivery of instruction and learning, while increasing the number of students served.
- Campus Integration – is not consistent with the College's Educational, Strategic, and Facilities Master Plans goals and objectives, and is included in the Facilities Master Plan.
- Campus Safety/Security – although the facility will meet current applicable building and lab codes, including life safety and access, the mechanical ventilation will be limited, and it does not provide as safe an environment for students, faculty, and staff as a permanent facility.
- Energy Efficiency – may improve campus energy efficiency, but it does not decrease maintenance and operational costs (total cost of ownership), and does not promote sustainability.

Solution Criteria Matrix

| Solution Criteria | Alt. 1 Construct New Facility | Alt. 2 Renovate Existing | Alt. 3 Lease Off-site Facilities |
|--|--|---|---|
| Cost: is the least cost solution that permanently accommodates science lab space without impacting the campus operational budget. | Yes | No | No |
| Educational Impact 1: provides instructional and support spaces that are appropriately sized and configured for the successful delivery of instruction and learning, while increasing the number of students served. | Yes | No | No |
| Educational Impact 2: provides building infrastructure that supports the electrical and technological needs of the instructional programs. | Yes | Yes | Yes |
| Campus Integration: is consistent with the College's Educational, Strategic and Facilities Master Plans goals and objectives, and it is included in the Facilities Master Plan. | Yes | No | No |
| Campus Safety/Security: provides a facility designed to current applicable building codes, including life safety, access, structural integrity, and mechanical ventilation, and provides a safe environment for students, faculty, and staff. | Yes | Yes | No |
| Energy Efficiency: improves campus energy efficiency, decreases maintenance and operational costs (total cost of ownership), and promotes sustainability. | Yes | No | No |

E. Recommended Solution:

- Which alternative and why?

Alternative 1 - Construct a permanent New Science Replacement Building is the chosen option because it is the only alternative that meets all of the solution criteria, and it is the least cost option. Alternative 1 addresses all of the current programmatic, physical, and infrastructure issues the best out of all the three options: by housing all of the programs within one permanent building, the new facility will improve instructional and campus operations, be equipped with adequate capacity and code-compliant infrastructure and technology, and provide labs sized and configured to accommodate more students while meeting the required accessibility and laboratory safety codes. Alternative 1 is also consistent with the Campus's Strategic, Educational, and Facilities Master Plans for enhancing student success. This alternative provides the best campus security and safety and is the most energy efficient and sustainable of all three options, reducing the total cost of ownership the most out of the three options.

The total estimated cost at CCI 10258 and EPI 5860 is \$107,686,000.

- Detailed scope description.

The Science Replacement Modernization Project will demolish the 68-year-old Science building, the Science Offices building, the Science Portables, and the Swing Space Portables, totalling 54,762 assignable square feet (ASF), to construct a new permanent two-story replacement facility on the current Swing Space Portables site. The new replacement building will house a total of 42,800 ASF and 69,000 GSF, resulting in a net reduction of 11,962 ASF on the campus. The new Science Replacement facility total ASF includes 1,350 ASF of Lecture space (a reduction of 5,273 ASF), 33,600 ASF of Laboratory space (a reduction of 4,580 ASF), 4,050 ASF of Office space (a reduction of 3,251 ASF), 500 ASF of Library space, and 3,300 ASF of Other support space.

Capacity-Load Ratios

Upon completion of the project, capacity-load ratios for lecture spaces decrease from 314% to 192%. Laboratory spaces also decrease from 146% to 115%, as do Office spaces from 107% to 103%. Library spaces increase from 79% to 84%, and AV/TV spaces remain unchanged at 13%.

| Type | Lecture | Lab | Office | Library | AV/TV | Other | Total |
|------------------------------------|-------------|-------------|-------------|------------|------------|------------|-------------|
| Primary | 1,350 | 33,600 | 4,050 | 500 | 0 | 3,300 | 42,800 |
| Secondary | - 6,623 | -38,180 | -7,301 | 0 | 0 | -2,658 | -54,762 |
| Net | -5,273 | -4,580 | -3,251 | 500 | 0 | 642 | 11,962 |
| Beg. Cap/Load Ratios (2021) | 314% | 146% | 107% | 79% | 13% | N/A | 131% |
| End. Cap/Load Ratios (2024) | 192% | 115% | 103% | 84% | 13% | N/A | 101% |

- Basis for cost information.

Cost estimates were assembled by the architect for this project, using the cost guidelines provided by the State Chancellor's Office, district data, and professional cost estimating. Hard construction costs were developed by engineering and construction management professionals utilizing the FPP program, and conceptual drawings, and data from recently completed construction projects at Los Rios Community College District campuses and the Sacramento region. The estimate is based on local prevailing wage construction costs and raw materials costs at the time the estimate was prepared (April 2026) and does not include escalation. Pricing assumes competitive bidding for all sub-trades.

Estimated hard construction costs for the Science Replacement Modernization project exceed current state guidelines at CCCI 10258. The excess hard construction costs also trigger associated soft costs. The proposed project costs are estimated to exceed maximum state guidelines by \$27,441,125, and these have been identified as non-state supportable throughout the FPP. The District is contributing 50% towards state-supportable project costs, as well as the additional \$27,441,125 for the non-state supportable costs.

- Factors/benefits for recommended solution other than the least expensive alternative.

In addition to being the least cost solution, and the solution that best meets all of the project criteria, this solution also allows the campus to realign its instructional spaces by reallocating a portion of poorly utilized laboratory space to undersized science labs while also removing 11,962 assignable square feet from the campus inventory and improving capacity-load ratios across the board. With a smaller ASF/GSF and equipped with more efficient building systems and more durable, sustainable materials, this solution will also lower maintenance and operational costs and improve the campus's sustainability.

- Complete description of impact on support budget.

There are no program costs associated with the Science Replacement Modernization Project because these programs and staff already exist. The staff and programs currently support students in overcrowded and undersized lab spaces, and this project will correct this misallocation of space with no building growth. This project will also lower maintenance and operational costs through the removal of aged buildings, reduction in campus space, and a more efficient new facility.

- Identify and explain any project risks.

No known risks have been identified for this project at this time.

- List requested interdepartmental coordination and/or special project approval (including mandatory reviews and approvals, e.g. technology proposals).

State Fire Marshal review for fire life safety, and Division of the State Architect for fire life safety, access compliance, structural reviews, and field reviews.

F. Consistency with Government Code Section 65041.1:

Does the recommended solution (project) promote infill development by rehabilitating existing infrastructure and how? Explain.

The California Community Colleges are exempt from the specific provisions of this Government Code Section.

STATE OF CALIFORNIA

COBCP - Narrative

DF-151 (REV 07/21)

Does the project improve the protection of environmental and agricultural resources by protecting and preserving the state's most valuable natural resources? Explain.

The California Community Colleges are exempt from the specific provisions of this Government Code Section.

Does the project encourage efficient development patterns by ensuring that infrastructure associated with development, other than infill, support efficient use of land and is appropriately planned for growth? Explain.

The California Community Colleges are exempt from the specific provisions of this Government Code Section.

Economic Analysis Matrix

| Economic Analysis Matrix | Alt. 1 Construct New Facility | Alt. 2 Renovate Existing | Alt. 3 Lease Off-site Facilities |
|---|--|---|--|
| Site Acquisition | \$0 | \$0 | \$0 |
| Plans and Working Drawings | \$7,592,000 | \$7,893,300 | Unknown |
| Construction Costs | | | \$0 |
| Utility Service | \$3,141,300 | \$1,413,600 | |
| Site Development Service | \$1,690,900 | \$172,900 | |
| Site Development General | \$2,139,200 | \$962,600 | |
| Site Development Other | \$1,604,200 | | |
| Reconstruction | | \$45,915,400 | |
| New Construction (Alternate 1) | \$51,768,300 | | |
| New Construction (Science Portables) | | \$6,872,000 | |
| BOG Allowance | \$1,035,400 | \$1,514,900 | |
| Other | \$24,336,600 | \$24,297,300 | |
| Other (Seismic Upgrades) | | \$3,839,300 | |
| Construction Soft Costs | \$9,239,800 | \$11,015,000 | \$0 |
| Total Construction Costs | \$94,955,700 | \$96,003,000 | Tenant Improvements Costs unknown |
| Equipment (Group II) | \$5,138,700 | \$5,138,700 | \$5,138,700 |
| Other (Lease/Tenant Improvements) - current lease rate at loopnet.com is \$42 for campus area: \$42 x 69,000 gsf x 50 years = | | | \$144,900,000 |
| Total Project Cost at CCI 10258 EPI 5860 in Today's \$ in rounded numbers | \$107,686,000 | \$109,035,000 | \$150,038,700 |

8.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT
(Reference: California Code of Regulations, Title 5 Section 57121)

The District will have CEQA review requirements completed prior to request for Preliminary Plans approval and/or request to proceed to bid.

9.1 ANALYSIS OF FUTURE COSTS

Provide an economic analysis of additional instructional, administrative, and maintenance cost resulting from the proposed project, including personnel years. Disclose all new courses or programs to be housed in the project that may need Chancellor's Office review.

Personnel Costs

Certificated:

No change to staffing is associated with this project.

Classified:

No change to staffing is associated with this project.

Depreciation, Maintenance, and Operation

There will be savings in maintenance and operations because this project removes 11,962 ASF from the campus inventory, demolishes aged buildings, removes multiple temporary portables, and the new replacement building will be more energy and water efficient. The removal of campus space and the consolidation of these programs within one facility will also save on custodial costs.

Program/Course/Service Approvals

List all new programs/courses/services to be housed in this project or its secondary effects and give the date of approval. If there are no new programs/courses/services for which approval is required, please so state. This is not required for equipment-only projects.

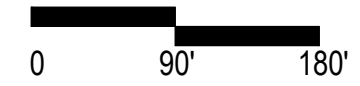
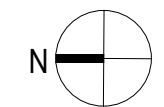
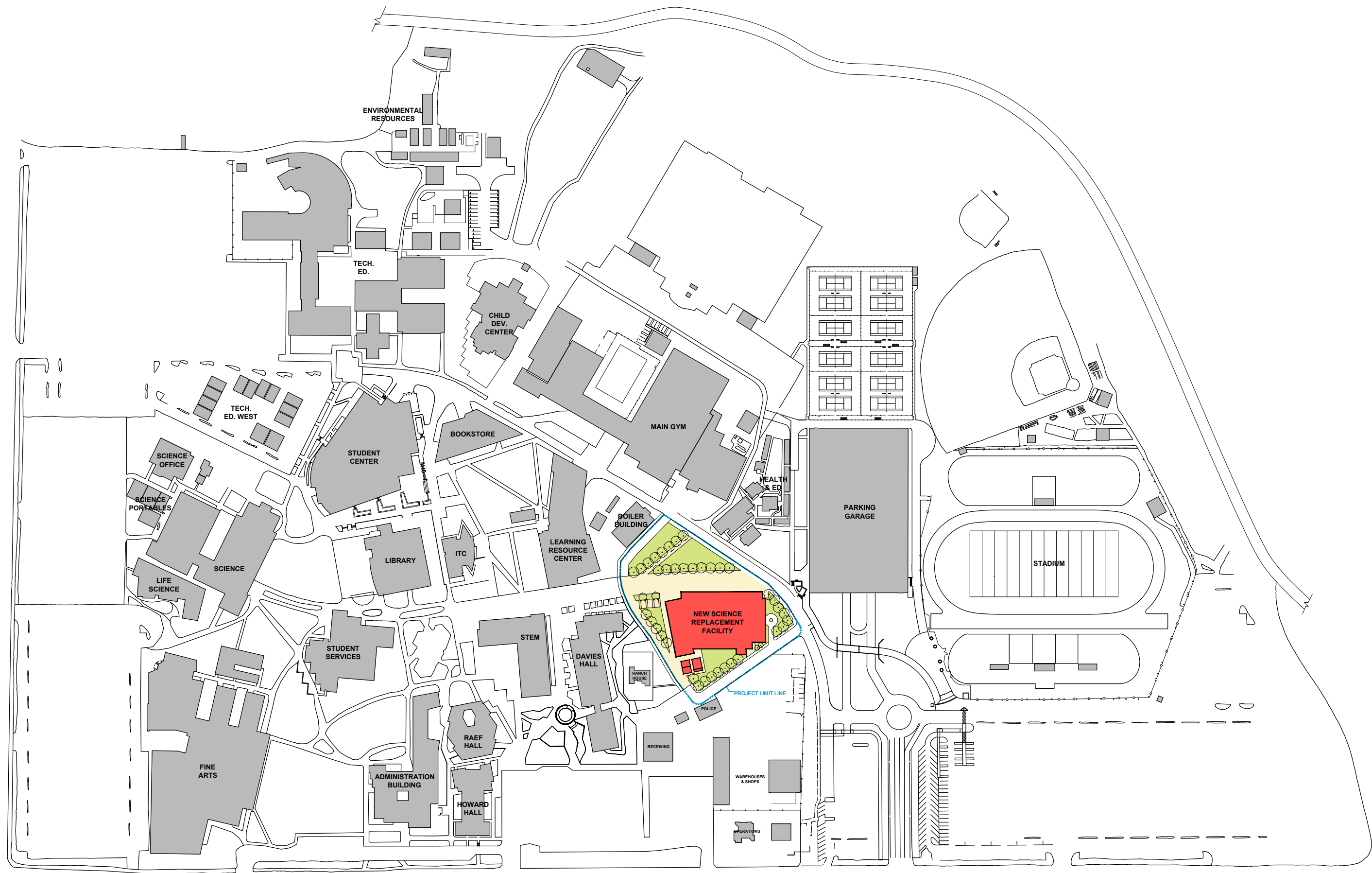
| Name of New Program/Course/Service | Date of Approval |
|---|------------------|
| <u>No New Programs, therefore Not Applicable.</u> | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

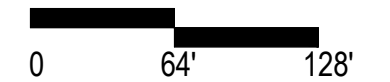
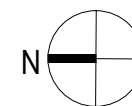
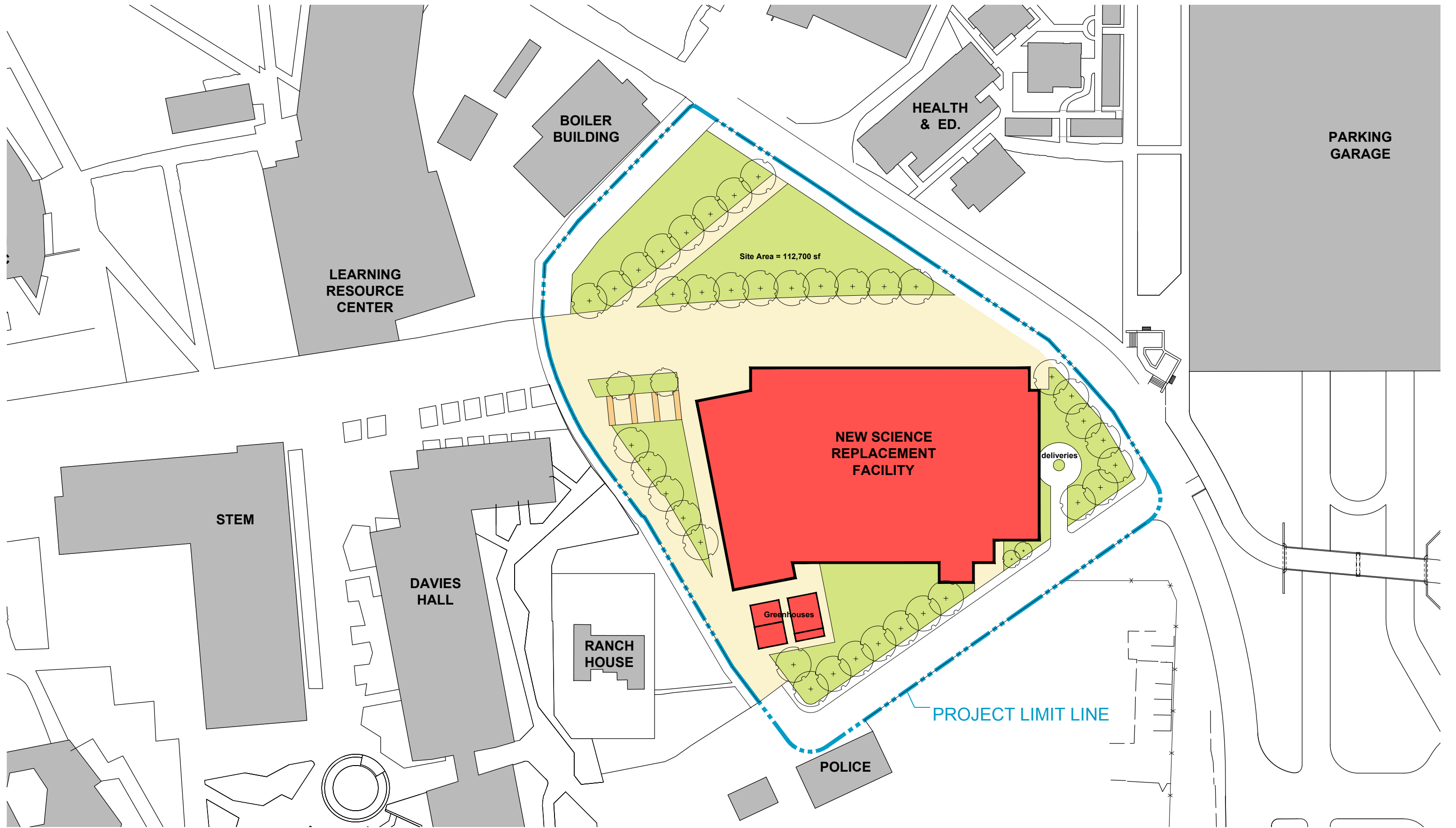
10. DIAGRAMS OF CAMPUS, PROJECT SITE, BUILDING AREAS, AND ELEVATIONS

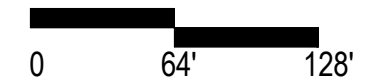
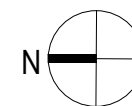
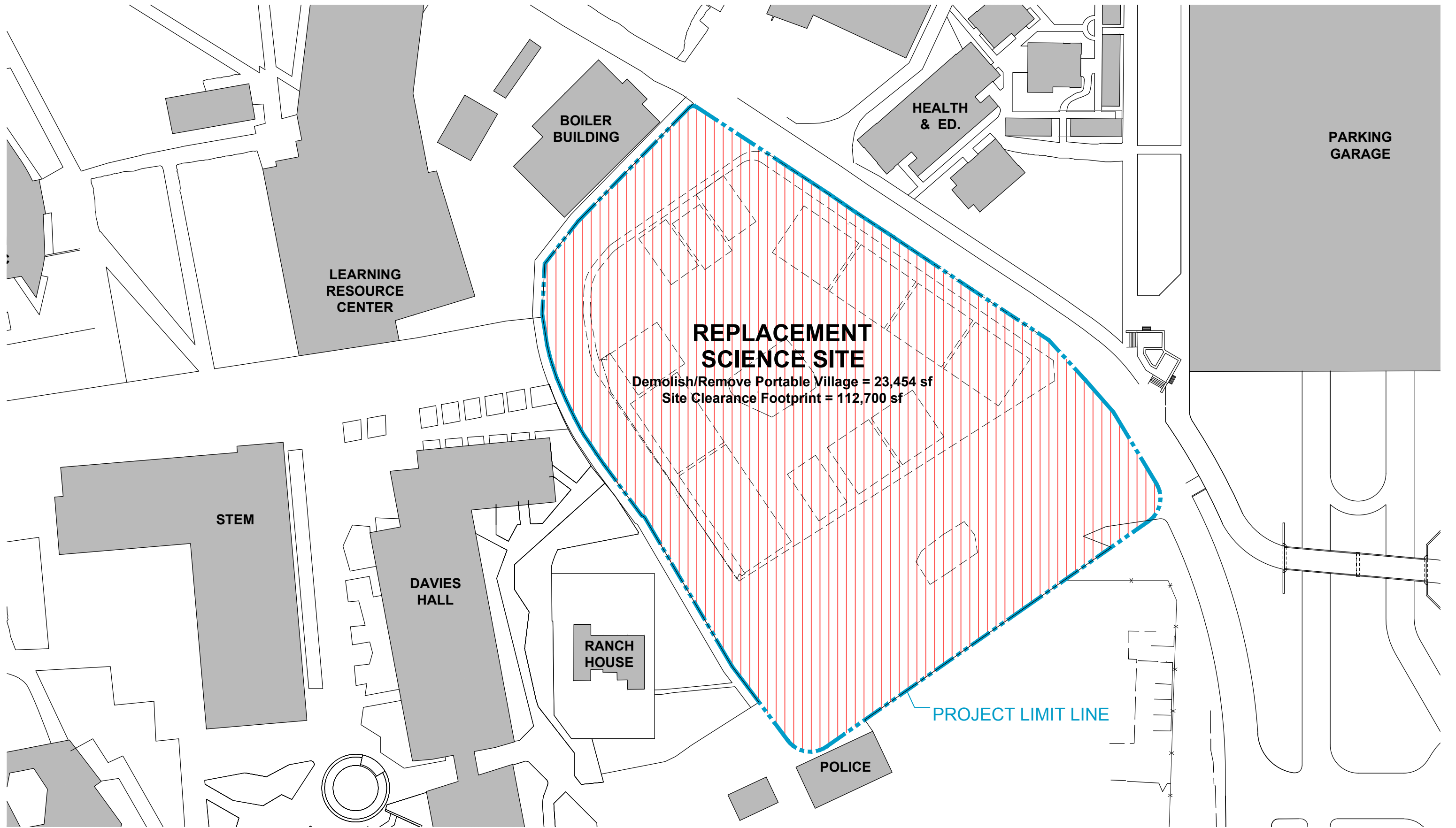
Provide the following pre-schematics in lieu of this sheet: Campus Plot Plan, Site Plan, Floor Plans, and Exterior Elevations. If the project has unusual characteristics that require further explanation, please provide the following conceptual drawings as needed: Electrical Plans and Mechanical Plans.

See Attached Drawings:

- 10.1** Campus Plot Plan
- 10.2** Site Plan
- 10.3** Demolition Site Plan
- 10.4** First Floor Plan
- 10.5** Second Floor Plan
- 10.6** Elevations
- 10.7** Post Occupancy Demolition Site Plan









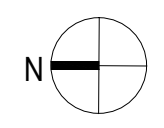
| ROOM TYPE | TOP | DESCRIPTION | LEVEL 1 ASF | LEVEL 2 ASF | TOTAL ASF |
|-----------|------|-----------------------|-------------|-------------|--------------------------|
| 110 | 0099 | GENERAL ASSIGNMENT | - | 1,350 | 1,350 |
| 210 | 0401 | BIOLOGY | 2,700 | - | 2,700 |
| 210 | 0402 | BOTANY | 1,350 | - | 1,350 |
| 210 | 0403 | MICROBIOLOGY | 1,350 | - | 1,350 |
| 210 | 0407 | ZOOLOGY | 1,350 | - | 1,350 |
| 210 | 0410 | ANATOMY & PHYSIOLOGY | 4,050 | - | 4,050 |
| 210 | 0430 | BIOTECHNOLOGY | 1,350 | - | 1,350 |
| 210 | 1905 | CHEMISTRY | - | 10,800 | 10,800 |
| 210 | 1914 | GEOLOGY | 3,750 | - | 3,750 |
| 215 | 0401 | BIOLOGY | 2,900 | - | 2,900 |
| 215 | 0410 | ANATOMY & PHYSIOLOGY | 450 | - | 450 |
| 215 | 1905 | CHEMISTRY, GENERAL | - | 3,350 | 3,350 |
| 215 | 1914 | GEOLOGY | 200 | - | 200 |
| 310 | 099 | GENERAL ASSIGNMENT | 150 | 3,820 | 3,970 |
| 315 | 099 | GENERAL ASSIGNMENT | - | 80 | 80 |
| 410 | 6110 | LEARNING CENTER | 500 | - | 500 |
| 580 | 0402 | BOTANY | 1,100 | - | 1,100 |
| 585 | 0402 | BOTANY | 100 | - | 100 |
| 620 | 6140 | MUSEUM & GALLERIES | 440 | - | 440 |
| 625 | 6140 | MUSEUM & GALLERIES | 100 | - | 100 |
| 640 | 099 | GENERAL ASSIGNMENT | - | 100 | 100 |
| 650 | 099 | GENERAL ASSIGNMENT | - | 900 | 900 |
| 680 | 099 | GENERAL ASSIGNMENT | - | 160 | 160 |
| 710 | 6780 | MANAGEMENT INFO. SVCS | 150 | 150 | 300 |
| 730 | 6510 | BUILDING MAINTENANCE | 100 | - | 100 |
| TOTALS | | | 22,090 ASF | 20,710 ASF | 42,800 ASF 66,800 GSF |

10.4

DAVIES HALL REPLACEMENT HEALTH AND SAFETY FINAL PROJECT PROPOSAL FIRST FLOOR PLAN

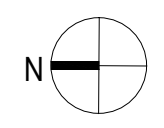
LOS RIOS COMMUNITY COLLEGE DISTRICT - AMERICAN RIVER COLLEGE

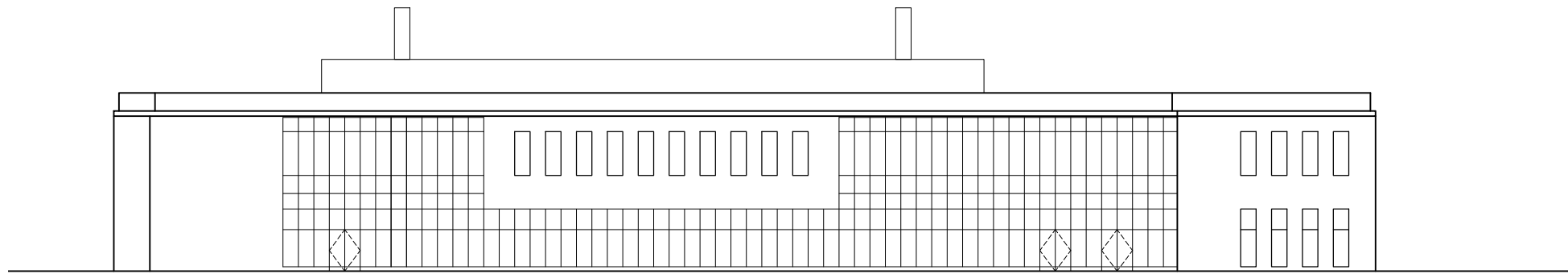
1" = 30' - 0"



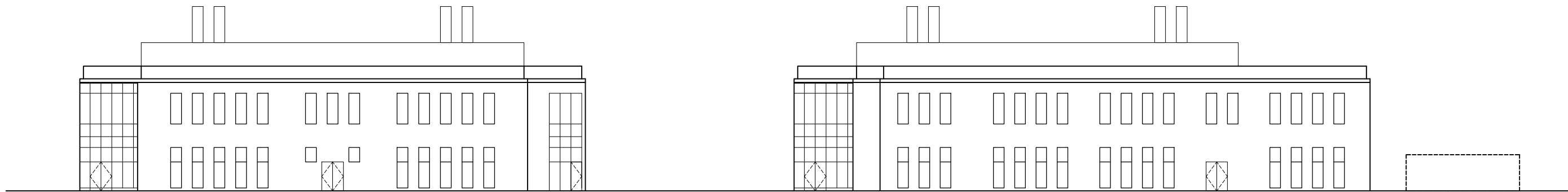


| ROOM TYPE | TOP | DESCRIPTION | LEVEL 1 ASF | LEVEL 2 ASF | TOTAL ASF |
|-----------|------|-----------------------|-------------|-------------|--------------------------|
| 110 | 0099 | GENERAL ASSIGNMENT | - | 1,350 | 1,350 |
| 210 | 0401 | BIOLOGY | 2,700 | - | 2,700 |
| 210 | 0402 | BOTANY | 1,350 | - | 1,350 |
| 210 | 0403 | MICROBIOLOGY | 1,350 | - | 1,350 |
| 210 | 0407 | ZOOLOGY | 1,350 | - | 1,350 |
| 210 | 0410 | ANATOMY & PHYSIOLOGY | 4,050 | - | 4,050 |
| 210 | 0430 | BIOTECHNOLOGY | 1,350 | - | 1,350 |
| 210 | 1905 | CHEMISTRY | - | 10,800 | 10,800 |
| 210 | 1914 | GEOLOGY | 3,750 | - | 3,750 |
| 215 | 0401 | BIOLOGY | 2,900 | - | 2,900 |
| 215 | 0410 | ANATOMY & PHYSIOLOGY | 450 | - | 450 |
| 215 | 1905 | CHEMISTRY, GENERAL | - | 3,350 | 3,350 |
| 215 | 1914 | GEOLOGY | 200 | - | 200 |
| 310 | 099 | GENERAL ASSIGNMENT | 150 | 3,820 | 3,970 |
| 315 | 099 | GENERAL ASSIGNMENT | - | 80 | 80 |
| 410 | 6110 | LEARNING CENTER | 500 | - | 500 |
| 580 | 0402 | BOTANY | 1,100 | - | 1,100 |
| 585 | 0402 | BOTANY | 100 | - | 100 |
| 620 | 6140 | MUSEUM & GALLERIES | 440 | - | 440 |
| 625 | 6140 | MUSEUM & GALLERIES | 100 | - | 100 |
| 640 | 099 | GENERAL ASSIGNMENT | - | 100 | 100 |
| 650 | 099 | GENERAL ASSIGNMENT | - | 900 | 900 |
| 680 | 099 | GENERAL ASSIGNMENT | - | 160 | 160 |
| 710 | 6780 | MANAGEMENT INFO. SVCS | 150 | 150 | 300 |
| 730 | 6510 | BUILDING MAINTENANCE | 100 | - | 100 |
| TOTALS | | | 22,090 ASF | 20,710 ASF | 42,800 ASF 66,800 GSF |



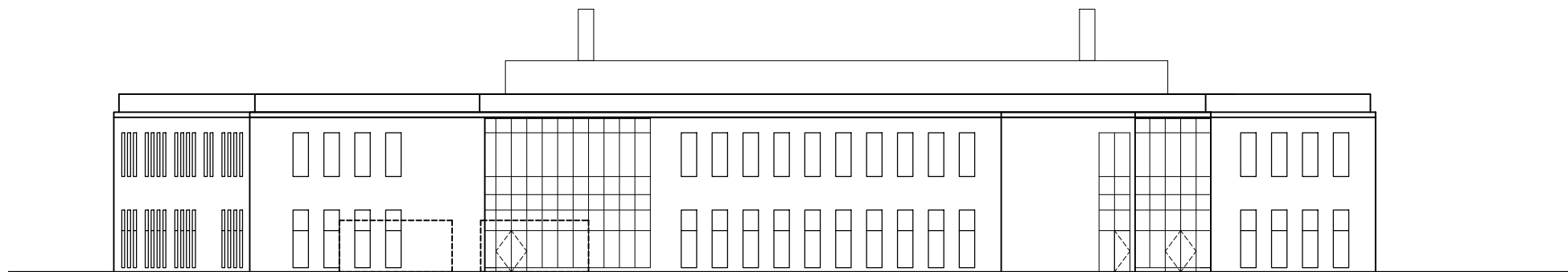


EAST ELEVATION

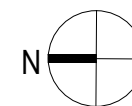
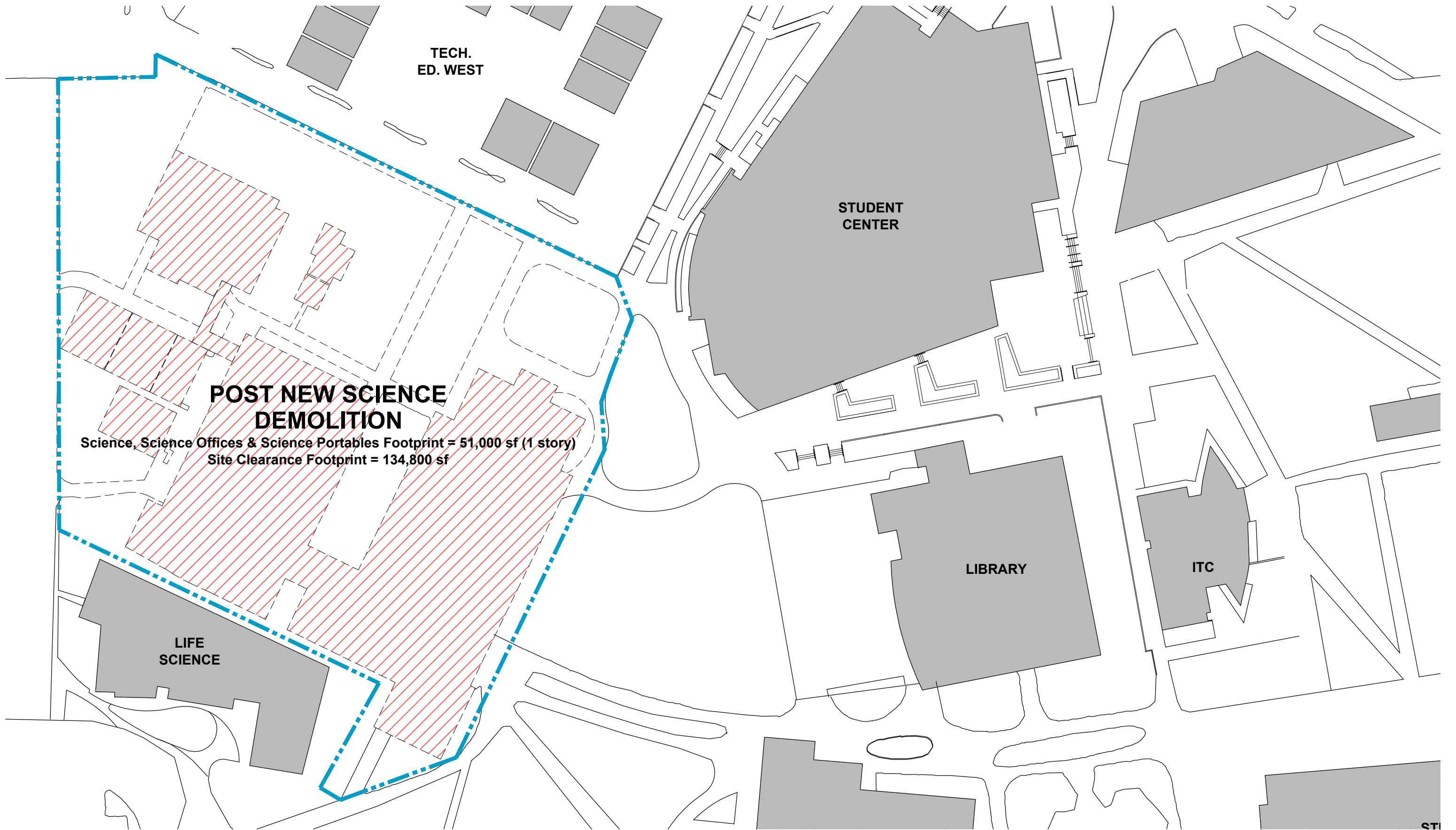


NORTH ELEVATION

SOUTH ELEVATION



WEST ELEVATION



Los Rios Community College District (230)

American River College (231)

Project: Science Replacement Modernization - EPI : 5860

| Rm Type | Description | TOP Code | Department | ASF | Sec. ASF | Increase In Space | Equip. Cost/ASF | Total Allowable Cost |
|---------|---------------------------|----------|---|--------|----------|-------------------|-----------------|----------------------|
| 110 | Classroom | 0099 | General Assignment | 0 | 2,759 | -2,759 | \$27.4 | \$0 |
| 110 | Classroom | 0099 | General Assignment | 1,350 | 0 | 1,350 | \$27.4 | \$36,990 |
| 110 | Classroom | 0099 | General Assignment | 0 | 3,098 | -3,098 | \$27.4 | \$0 |
| 110 | Classroom | 4900 | Interdisciplinary Studies | 0 | 664 | -664 | \$27.4 | \$0 |
| 115 | Classroom Service | 0099 | General Assignment | 0 | 64 | -64 | \$27.4 | \$0 |
| 115 | Classroom Service | 0099 | General Assignment | 0 | 38 | -38 | \$27.4 | \$0 |
| 210 | Class Lab | 0400 | Biological Sciences | 0 | 1,346 | -1,346 | \$139.28 | \$0 |
| 210 | Class Lab | 0401 | Biology, General | 0 | 1,502 | -1,502 | \$139.28 | \$0 |
| 210 | Class Lab | 0401 | Biology, General | 2,700 | 0 | 2,700 | \$139.28 | \$376,056 |
| 210 | Class Lab | 0402 | Botany, General | 1,350 | 0 | 1,350 | \$139.28 | \$188,028 |
| 210 | Class Lab | 0402 | Botany, General | 0 | 1,141 | -1,141 | \$139.28 | \$0 |
| 210 | Class Lab | 0403 | Microbiology | 0 | 1,141 | -1,141 | \$139.28 | \$0 |
| 210 | Class Lab | 0403 | Microbiology | 1,350 | 0 | 1,350 | \$139.28 | \$188,028 |
| 210 | Class Lab | 0407 | Zoology, General | 0 | 1,141 | -1,141 | \$139.28 | \$0 |
| 210 | Class Lab | 0407 | Zoology, General | 1,350 | 0 | 1,350 | \$139.28 | \$188,028 |
| 210 | Class Lab | 0410 | Anatomy and Physiology | 0 | 2,282 | -2,282 | \$139.28 | \$0 |
| 210 | Class Lab | 0410 | Anatomy and Physiology | 4,050 | 0 | 4,050 | \$139.28 | \$564,084 |
| 210 | Class Lab | 0430 | Biotechnology and Biomedical Technology | 1,350 | 0 | 1,350 | \$139.28 | \$188,028 |
| 210 | Class Lab | 0430 | Biotechnology and Biomedical Technology | 0 | 883 | -883 | \$139.28 | \$0 |
| 210 | Class Lab | 1255 | Mortuary Science | 0 | 1,346 | -1,346 | \$86.38 | \$0 |
| 210 | Class Lab | 1905 | Chemistry, General | 0 | 9,187 | -9,187 | \$139.28 | \$0 |
| 210 | Class Lab | 1905 | Chemistry, General | 10,800 | 0 | 10,800 | \$139.28 | \$1,504,224 |
| 210 | Class Lab | 1914 | Geology | 0 | 2,205 | -2,205 | \$139.28 | \$0 |
| 210 | Class Lab | 1914 | Geology | 3,750 | 0 | 3,750 | \$139.28 | \$522,300 |
| 210 | Class Lab | 4900 | Interdisciplinary Studies | 0 | 10,469 | -10,469 | \$52.21 | \$0 |
| 215 | Class Lab Service | 0400 | Biological Sciences | 0 | 460 | -460 | \$139.28 | \$0 |
| 215 | Class Lab Service | 0401 | Biology, General | 2,900 | 0 | 2,900 | \$139.28 | \$403,912 |
| 215 | Class Lab Service | 0401 | Biology, General | 0 | 1,474 | -1,474 | \$139.28 | \$0 |
| 215 | Class Lab Service | 0410 | Anatomy and Physiology | 450 | 0 | 450 | \$139.28 | \$62,676 |
| 215 | Class Lab Service | 1905 | Chemistry, General | 3,350 | 0 | 3,350 | \$139.28 | \$466,588 |
| 215 | Class Lab Service | 1905 | Chemistry, General | 0 | 1,896 | -1,896 | \$139.28 | \$0 |
| 215 | Class Lab Service | 1914 | Geology | 0 | 36 | -36 | \$139.28 | \$0 |
| 215 | Class Lab Service | 1914 | Geology | 200 | 0 | 200 | \$139.28 | \$27,856 |
| 215 | Class Lab Service | 4900 | Interdisciplinary Studies | 0 | 1,376 | -1,376 | \$52.21 | \$0 |
| 225 | Special Class Lab Service | 1905 | Chemistry, General | 0 | 295 | -295 | \$139.28 | \$0 |

| | | | | | | | | |
|--------------|--------------------------|------|--|---------------|---------------|----------------|----------|--------------------|
| 310 | Office | 0099 | General Assignment | 0 | 2,008 | -2,008 | \$42.84 | \$0 |
| 310 | Office | 0099 | General Assignment | 3,970 | 0 | 3,970 | \$42.84 | \$170,075 |
| 310 | Office | 0099 | General Assignment | 0 | 3,043 | -3,043 | \$42.84 | \$0 |
| 310 | Office | 0401 | Biology, General | 0 | 214 | -214 | \$42.84 | \$0 |
| 310 | Office | 1905 | Chemistry, General | 0 | 1,379 | -1,379 | \$42.84 | \$0 |
| 315 | Office Service | 0099 | General Assignment | 0 | 657 | -657 | \$42.84 | \$0 |
| 315 | Office Service | 0099 | General Assignment | 80 | 0 | 80 | \$42.84 | \$3,427 |
| 410 | Read/Study Room | 6110 | Learning Center (Learning Resource Center) | 500 | 0 | 500 | \$64.3 | \$32,150 |
| 540 | Clinic St Care | 6310 | Counseling Services | 0 | 1,374 | -1,374 | \$0 | \$0 |
| 580 | Greenhouse | 0402 | Botany, General | 1,100 | 0 | 1,100 | \$0 | \$0 |
| 580 | Greenhouse | 0402 | Botany, General | 0 | 717 | -717 | \$0 | \$0 |
| 585 | Greenhouse Service | 0401 | Biology, General | 0 | 427 | -427 | \$0 | \$0 |
| 585 | Greenhouse Service | 0402 | Botany, General | 100 | 0 | 100 | \$0 | \$0 |
| 620 | Exhibition | 6140 | Museums and Galleries | 440 | 0 | 440 | \$73.51 | \$32,344 |
| 625 | Exhibition Service | 6140 | Museums and Galleries | 100 | 0 | 100 | \$73.51 | \$7,351 |
| 640 | Lactation Room | 0099 | General Assignment | 100 | 0 | 100 | \$87.28 | \$8,728 |
| 650 | Lounge | 0099 | General Assignment | 900 | 0 | 900 | \$44.4 | \$39,960 |
| 650 | Lounge | 0099 | General Assignment | 0 | 94 | -94 | \$44.4 | \$0 |
| 680 | Meeting Room | 0099 | General Assignment | 160 | 0 | 160 | \$44.4 | \$7,104 |
| 710 | Data Processing/Computer | 4900 | Interdisciplinary Studies | 0 | 46 | -46 | \$398.35 | \$0 |
| 710 | Data Processing/Computer | 6780 | Management Information Services | 300 | 0 | 300 | \$398.35 | \$119,505 |
| 730 | Storage | 6510 | Building Maintenance and Operation Support | 100 | 0 | 100 | \$12.47 | \$1,247 |
| TOTAL | | - | - | 42,800 | 54,762 | -11,962 | - | \$5,138,689 |

12.1 JUSTIFICATION FOR ADDITIONAL COSTS EXCEEDING GUIDELINES

Construction (including Group I equipment), Equipment (Group II and Furniture)

District: Los Rios CCD **College:** American River College

Project: Science Replacement Modernization

Please use this and additional pages or diagrams to explain and justify items of cost not easily explained on other forms. Examples of items needing justification: site improvements, unusual or high-cost construction methods, or items of equipment that exceed ASF cost guidelines. This form, when completed, supplements both the "Quantities and Unit Costs Supporting the JCAF 32" and the "Guidelines-based Group II Equipment Cost Estimate" forms.

The District has added additional funds as non-state supportable to cover costs over the JCAF 32 cost guidelines. These costs are the differential between a professionally commissioned construction cost estimate and the state generated cost estimate. The construction cost differential also triggers some non-state supportable soft costs, which are also covered by the District. The total non-state supportable amount (including soft costs) covered by the District is \$27,441,125. Below, we explain the basis for the additional costs exceeding guidelines.

Cost estimates were assembled by the architect for this project, using the cost guidelines provided by the State Chancellor's Office, district data, and professional cost estimating. Hard construction costs were developed by engineering and construction management professionals utilizing the FPP program, and conceptual drawings, and data from recently completed construction projects at Los Rios Community College District campuses and the Sacramento region. The estimate is based on local prevailing wage construction costs and raw materials costs at the time the estimate was prepared (April 2026) and does not include escalation. Pricing assumes competitive bidding for all sub-trades.

Estimated hard construction costs for the Science Replacement Modernization project exceed current state guidelines at CCCI 10258. Although all proposed scope of work is state supportable, the proposed project is estimated to exceed maximum state guidelines for hard construction by \$23,089,153. State guidelines at CCI 10258 put the construction costs at \$62,626,655 in today's dollars. According to the District's professional estimator, the building-related construction cost is \$85,715,808 in today's dollars. The difference between these two estimates is \$23,089,153.

These costs are related to the realities of the Sacramento construction market, reflecting the following:

- Sacramento is the 4th highest city in the USA for unionization, which makes local labor more expensive.¹
- California is experiencing "*one of the most severe construction labor shortages in the country. While it has a strong housing market and high demand for infrastructure projects, finding skilled workers remains a significant hurdle. California's stringent building codes, environmental regulations, and high costs for labor make it a challenging state for construction firms.*"²

¹ See: <https://constructioncoverage.com/research/most-unionized-cities-in-america>

² See: <https://www.linkedin.com/pulse/worst-states-construction-industry-going-2026-colt-kierstead-rtruc>

- The 2025 Los Angeles Fire has made both labor and materials more expensive as these resources are diverted to rebuilding efforts in the fire areas.
- Labor shortages were exacerbated in 2026 due to immigration enforcement and intense competition for labor needed to build artificial intelligence data center hubs.

These realities are reflected in the actual cost of raw materials and labor that Los Rios CCD has experienced on its campuses. Two projects with similar science labs have recently been completed at two of Los Rios CCD's campuses:

The Folsom Lake Center Oak Hall, completed in 2025, has 47,240 ASF, 75,200 GSF and 55% (26,277 ASF) of the total ASF is lab space. With a construction cost of approximately \$70,050,000, the construction cost is around \$932 per gross square foot.

The Natomas Center Building 2, completed in 2025, has 33,846 ASF, 53,122 GSF and 51% (17,228 ASF) of the total ASF is lab space. With a construction cost of approximately \$53,200,000, the construction cost is around \$1,001 per gross square foot.

Both of these projects were bid in early 2023, so taking their cost per gsf and adjusting it for the California Construction Cost indexes for 2023 - 2026, these projects would bid between \$1,084 - \$1,164 per gross square foot today.

It should also be noted that the proposed American River College Science Replacement Modernization project has **79%** of the total ASF as science lab space (33,600 out of 42,800 ASF) compared to these two examples, which had 51% and 55%. The higher amount of lab space results in a higher cost per gross square foot since there is more "expensive" space in this building than in the other two examples.

The FPP cost estimator professional has the construction cost at \$1,242 per gross square foot, whereas the State Guidelines have the construction cost at \$908 per gross square foot (\$62,626,655 for 69,000 GSF = \$908/gsf), which is less than what the Folsom Lake Center Oak Hall and the Natomas Center Building 2, both recently completed in 2025, cost per gross square foot.

Accounting for the hard construction cost estimate difference (and associated soft costs) above State guidelines as non-state supportable results in the State paying for 38% of the project costs and the District paying 62% of those costs.

A summary of the District's 3rd Party Estimate showing the costs by each trade/material category is on the attached page.

Professional FPP 2026 Cost Estimate Summary Page

LRCCD American River College
 ARC Science Building
 Sacramento CA



DSA No: NA
 DSA Region: DSA Region 2
 School District: College
 Date: April 27, 2026
 GSF: 69,000

Alternative Valuation B Template Building Cost Estimate Summary - MasterFormat, Level 2

| SECTION | % | TOTAL | \$/ SF | TOTAL W/MARKUPS & CONTINGENCY | \$/ SF | COMMENTS |
|---|---------------|---------------------|-----------------|-------------------------------------|-------------------|------------------|
| DIVISION 3 - CONCRETE | 4.2% | \$2,839,260 | \$41.15 | \$3,577,468 | \$51.85 | |
| DIVISION 4 - MASONRY | 0.2% | \$128,520 | \$1.86 | \$161,935 | \$2.35 | |
| DIVISION 5 - METALS | 11.7% | \$7,987,240 | \$115.76 | \$10,063,922 | \$145.85 | |
| DIVISION 6 - WOOD, PLASTICS AND COMPOSITES | 0.8% | \$552,000 | \$8.00 | \$695,520 | \$10.08 | |
| DIVISION 7 - THERMAL AND MOISTURE PROTECTION | 4.7% | \$3,168,260 | \$45.92 | \$3,992,008 | \$57.86 | |
| DIVISION 8 - OPENINGS | 3.2% | \$2,184,450 | \$31.66 | \$2,752,407 | \$39.89 | |
| DIVISION 9 - FINISHES | 8.0% | \$5,463,106 | \$79.18 | \$6,883,514 | \$99.76 | |
| DIVISION 10 - SPECIALTIES | 0.8% | \$550,000 | \$7.97 | \$693,000 | \$10.04 | |
| DIVISION 11 - EQUIPMENT | 6.3% | \$4,312,665 | \$62.50 | \$5,433,958 | \$78.75 | |
| DIVISION 12 - FURNISHINGS | 0.2% | \$128,520 | \$1.86 | \$161,935 | \$2.35 | |
| DIVISION 13 - SPECIAL CONSTRUCTION | 0.8% | \$511,000 | \$7.41 | \$643,860 | \$9.33 | |
| DIVISION 14 - CONVEYING EQUIPMENT | 0.7% | \$460,000 | \$6.67 | \$579,600 | \$8.40 | |
| DIVISION 21 - FIRE SUPPRESSION | 1.1% | \$779,000 | \$11.29 | \$981,540 | \$14.23 | |
| DIVISION 22 - PLUMBING | 7.5% | \$5,079,750 | \$73.62 | \$6,400,485 | \$92.76 | |
| DIVISION 23 - HEATING, VENTILATING AND AIR | 20.2% | \$13,710,000 | \$198.70 | \$17,274,600 | \$250.36 | |
| DIVISION 25 - INTEGRATED AUTOMATION | 1.5% | \$1,035,000 | \$15.00 | \$1,304,100 | \$18.90 | |
| DIVISION 26 - ELECTRICAL | 11.9% | \$8,066,100 | \$116.90 | \$10,163,287 | \$147.29 | |
| DIVISION 27 - COMMUNICATIONS | 2.4% | \$1,656,000 | \$24.00 | \$2,086,560 | \$30.24 | |
| DIVISION 28 - ELECTRONIC SAFETY AND SECURITY | 2.4% | \$1,621,500 | \$23.50 | \$2,043,090 | \$29.61 | |
| BUILDING | 88.5% | \$60,232,371 | \$872.93 | \$75,892,788 | \$1,099.90 | |
| DIVISION 33 - 4A UTILITIES | 3.7% | \$2,493,075 | \$36.13 | \$3,141,275 | \$45.53 | |
| DIVISION 31 - 4B EARTHWORK | 2.0% | \$1,342,028 | \$19.45 | \$1,690,955 | \$24.51 | |
| DIVISION 32 - 4C EXTERIOR IMPROVEMENTS | 2.5% | \$1,697,744 | \$24.60 | \$2,139,158 | \$31.00 | |
| DIVISION 2 - 4D EXISTING CONDITIONS | 1.9% | \$1,273,200 | \$18.45 | \$1,604,232 | \$23.25 | |
| DIVISION 48 - 4H OTHER PV ON THE ROOF | 1.5% | \$990,000 | \$14.35 | \$1,247,400 | \$18.08 | |
| BUILDING SITWORK | 11.5% | \$7,796,047 | \$112.99 | \$9,823,020 | \$142.36 | |
| DIRECT COSTS | 100.0% | \$68,028,419 | \$985.92 | \$85,715,808 | \$1,242.26 | |
| GENERAL REQUIREMENTS | | | | Included above | | |
| GENERAL CONDITIONS | | | | Included above | | |
| INSURANCE + BONDING | | | | Included above | | |
| CONTRACTOR'S FEE | | | | Included above | | |
| FEES to DSA, Architects, Engineers, Design Professional Services, Inspections and Testing Services - Excluded | | Excluded | | Excluded | | |
| COST ESCALATION | | Excluded | | Excluded | | |
| REPLACEMENT COST | | \$68,028,419 | \$985.92 | \$85,715,808 | \$1,242.26 | total add-ons 0% |



ASCE 41 TIER 1 SEISMIC EVALUATION
FOR
AMERICAN RIVER COLLEGE SCIENCE BUILDING
SACRAMENTO, CA

5/4/2026

Client: Los Rios Community College District
Buehler SEOR: Bill Rader
Buehler Project Engineer: Gabrielle Favro
Buehler Job No.: 2026-0119





PROJECT LRCCD ARC Science Building

PROJECT NO. 2026-0119 DATE _____

CLIENT _____ BY GRF SHEET NO. _____

EXECUTIVE SUMMARY

Buehler Engineering, Inc (Buehler) conducted a preliminary ASCE 41 Tier 1 Seismic Evaluation of the American River College Science Building(s) located at 4700 College Oaks Drive in Sacramento, California. The purpose of this evaluation is to determine if the existing building conditions meet the seismic performance standards defined in the California Existing Building Code (CEBC).

The original drawings are from 1957 and the chemistry addition drawings were drawn in 1968. The scope of the analysis consists of 2 single-story buildings of approximately 19,000 square feet and 27,000 square feet, with a total footprint of about 46,000 square feet. The separate wings are divided into 2 and 3 separated rooms connected by the roof, created exterior corridors between the buildings. The lateral system of both wings light-frame wood shear walls with both plywood and diagonal sheathing with a flexible wood diaphragm at the roof. The gravity system consists of light-frame wood joists to steel beams and columns. The shear walls and columns both land on concrete pier footings. The interior spaces are created with wood walls.

Additionally, the 1990 addition of the faculty office building was also included in this evaluation. This building is a single-story wood light-framed building with dimensional lumber roof joists to wood posts and bearing walls for the gravity system. The lateral system consists entirely of plywood sheathed shear walls.

Buehler's preliminary review of the ARC Science buildings resulted in the flagging of a few areas that are non-compliant with the Tier 1 analysis checklist. This report contains the summary of retrofit solutions that will mitigate the deficiencies of the building. A more comprehensive Tier 2 analysis was then conducted to provide a more in-depth retrofit concept for the areas flagged with deficiencies.



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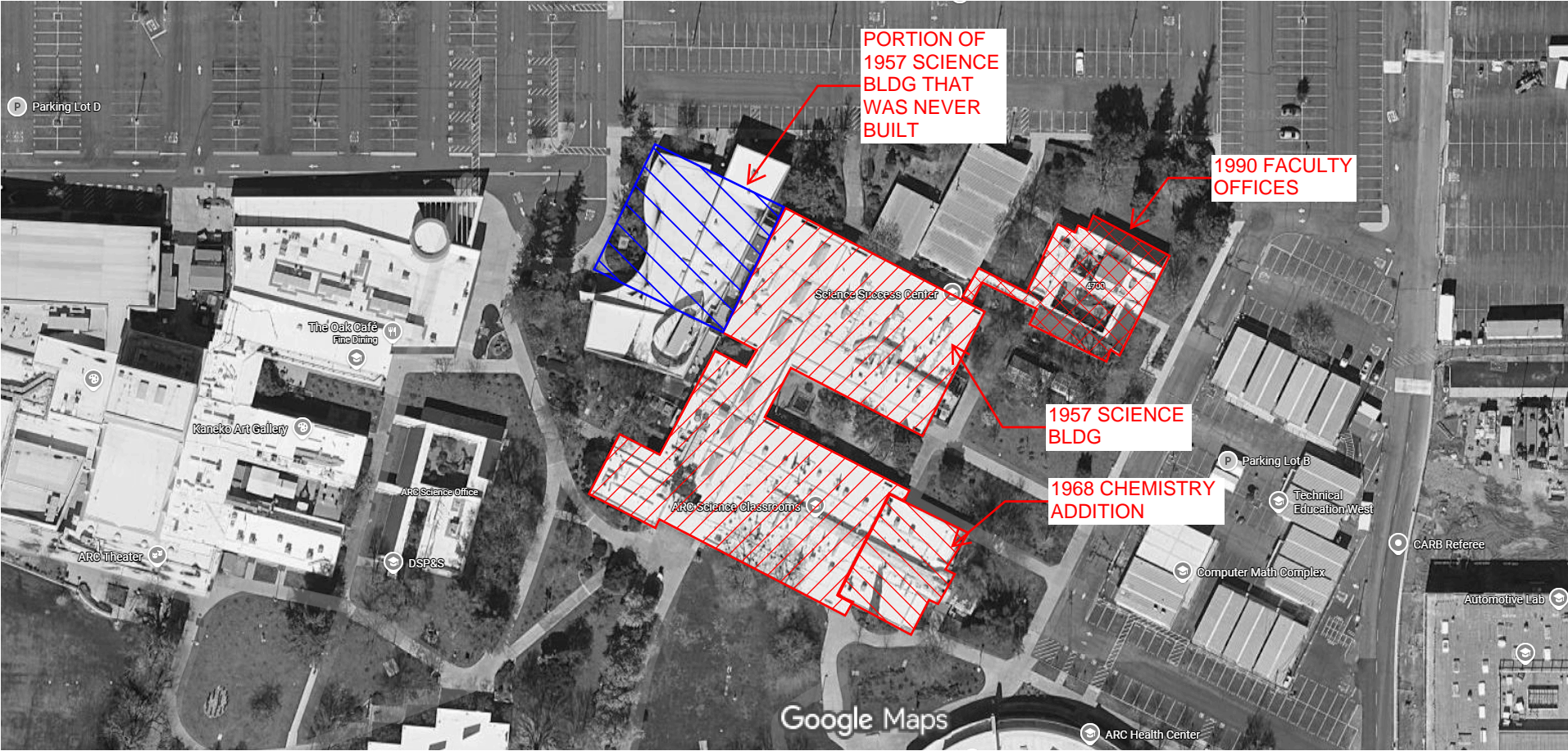
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PRELIMINARY RESULTS

The following is a list of deficiencies that were identified as a result of the Tier 1 analysis.

- Concrete Wall Anchors: See markup of plans for added anchorage for the concrete shear walls to adequately transfer the seismic load. Method includes epoxy with threaded rods attached to steel plates and angles, welded to the steel beams and columns.
- Wood Shear Wall: See markup of plans for added wood shear wall sheathing to strengthen the existing wood shear walls.
- Diaphragm Continuity: There is a step in the roof in both wings of the building that will require ties to maintain continuity. Added blocking and straps can achieve the desired load transfer that is needed in these locations.
- Roof Chord Continuity: There are locations where roof framing changes span directions, causing discontinuities between roof chords. Added blocking and straps can achieve the desired load transfer that is needed in these locations.
- (UNKNOWN) Liquefaction: It is unlikely that liquefaction-susceptible soils exist underneath the foundation based on the location of the building. We recommend that a geotechnical engineer be engaged to verify no liquefaction potential exists.

No items were flagged in the Tier 1 analysis for the faculty office building. No further analysis required.





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TIER 1 CHECKLISTS

Table 17-2 COLLAPSE PREVENTION BASIC CONFIGURATION CHECKLIST

| Low Seismicity: Building System - General | | | | COMMENTS | |
|--|----|-----|---|---|--|
| C | NC | N/A | U | LOAD PATH: The structure shall contain a complete, well defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1. Tier 2: Sec. 5.4.1.1) | |
| C | NC | N/A | U | ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 0.25% of the height of the shorter building in low seismicity, 0.5% in moderate seismicity, and 1.5% in high seismicity. (Commentary: Sec. A.2.1.2. Tier 2: Sec. 5.4.1.2) | |
| C | NC | N/A | U | MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3. Tier 2: Sec. 5.4.1.3) | |
| Low Seismicity: Building System - Building Configuration | | | | | |
| C | NC | N/A | U | WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2. Tier 2: Sec. 5.4.2.1) | <i>Single-story buildings, not applicable.</i> |
| C | NC | N/A | U | SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3. Tier 2: Sec. 5.4.2.2) | <i>Single-story buildings, not applicable.</i> |
| C | NC | N/A | U | VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4. Tier 2: Sec. 5.4.2.3) | |
| C | NC | N/A | U | GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5. Tier 2: Sec. 5.4.2.4) | <i>Single-story buildings, not applicable.</i> |
| C | NC | N/A | U | MASS: There is no change in effective mass more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6. Tier 2: Sec. 5.4.2.5) | <i>Single-story buildings, not applicable.</i> |
| C | NC | N/A | U | TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (Commentary: Sec. A.2.2.7. Tier 2: Sec. 5.4.2.6) | <i>Flexible diaphragm, not applicable</i> |



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Moderate Seismicity: Geologic Site Hazards

(Complete the Following Items in Addition to the Items for Low Seismicity)

COMMENTS

| | | | | | |
|---|----|-----|---|--|--|
| C | NC | N/A | U | LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance shall not exist in the foundation soils at depths within 50 ft under the building. (Commentary: Sec. A.6.1.1. Tier 2: 5.4.3.1) | <i>This is unknown, but unlikely based off of knowledge of surround areas.</i> |
| C | NC | N/A | U | SLOPE FAILURE: The building site is located away from potential earthquake-induced slope failures or rockfalls so that it is unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2. Tier 2: 5.4.3.1) | |
| C | NC | N/A | U | SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3. Tier 2: 5.4.3.1) | |

High Seismicity: Foundation Configuration

(Complete the Following Items in Addition to the Items for Moderate Seismicity)

COMMENTS

| | | | | | |
|---|----|-----|---|---|--|
| C | NC | N/A | U | OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_a$. (Commentary: Sec. A.6.2.1. Tier 2: Sec. 5.4.3.3) | |
| C | NC | N/A | U | TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2. Tier 2: Sec. 5.4.3.4) | |

Table 17-6 COLLAPSE PREVENTION STRUCTURAL CHECKLIST FOR BUILDING TYPE W2

Low and Moderate Seismicity: Seismic-Force-Resisting System

| | | | | | |
|---|----|-----|---|--|--|
| C | NC | N/A | U | REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1. Tier 2: Sec. 5.5.1.1) | <i>There are a minimum of 2 shear wall lines in each direction for both wings of the building.</i> |
| C | NC | N/A | U | SHEAR STRESS CHECK: The shear stress in the shear walls, calculated using the Quick Check procedure of Section 4.4.3.3, is less than the following values: Structural panel sheathing 1,000 lb/ft Diagonal sheathing 700 lb/ft Straight sheathing 100 lb/ft All other conditions 100 lb/ft (Commentary: Sec. A.3.2.7.1. Tier 2: Sec. 5.5.3.1.1) | <i>See attached calculation. Shear wall lines in the north-south direction of the north wing of the building will require strengthening.</i> |
| C | NC | N/A | U | STUCCO (EXTERIOR PLASTER) SHEAR WALLS: Multi-story buildings do not rely on exterior stucco walls as the primary seismic-force-resisting system. (Commentary: Sec. A.3.2.7.2. Tier 2: Sec. 5.5.3.6.1) | <i>The primary seismic-force-resisting system relies on structural plywood sheathing or diagonal sheathing, not plaster or stucco.</i> |
| C | NC | N/A | U | GYPSUM WALLBOARD OR PLASTER SHEAR WALLS: Interior plaster or gypsum wallboard is not used as shear walls on buildings more than one story high with the exception of the uppermost level of a multi-story building. (Commentary: Sec. A.3.2.7.3. Tier 2: Sec. 5.5.3.6.1) | <i>The primary seismic-force-resisting system relies on structural plywood sheathing or diagonal sheathing, not gyp board or plaster.</i> |



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| | | | | | |
|---|----|-----|---|---|---|
| C | NC | N/A | U | NARROW WOOD SHEAR WALLS: Narrow wood shear walls with an aspect ratio greater than 2-to-1 are not used to resist seismic forces. (Commentary: Sec. A.3.2.7.4. Tier 2: Sec. 5.5.3.6.1) | <i>All shear walls have an aspect ration smaller than 2:1</i> |
| C | NC | N/A | U | WALLS CONNECTED THROUGH FLOORS: Shear walls have an interconnection between stories to transfer overturning and shear forces through the floor. (Commentary: Sec. A.3.2.7.5. Tier 2: Sec.5.5.3.6.2) | <i>Single-story building, not applicable.</i> |
| C | NC | N/A | U | HILLSIDE SITE: For structures that are taller on at least one side by more than one-half story because of a sloping site, all shear walls on the downhill slope have an aspect ratio less than 1-to-1. (Commentary: Sec. A.3.2.7.6. Tier 2: Sec. 5.5.3.6.3) | <i>This condition does not occur on this building.</i> |
| C | NC | N/A | U | CRIPPLE WALLS: Cripple walls below first-floor-level shear walls are braced to the foundation with wood structural panels. (Commentary: Sec. A.3.2.7.7. Tier 2: Sec. 5.5.3.6.4) | <i>This condition does not occur on this building.</i> |
| C | NC | N/A | U | OPENINGS: Walls with openings greater than 80% of the length are braced with wood structural panel shear walls with aspect ratios of not more than 1.5-to-1 or are supported by adjacent construction through positive ties capable of transferring the seismic forces. (Commentary: Sec. A.3.2.7.8. Tier 2: Sec.5.5.3.6.5) | |

Low and Moderate Seismicity: Connections

| | | | | | |
|---|----|-----|---|---|---|
| C | NC | N/A | U | WOOD POSTS: There is a positive connection of wood posts to the foundation. (Commentary: Sec. A.5.3.3. Tier 2: Sec. 5.7.3.3) | <i>There are no wood posts, only studs and steel columns.</i> |
| C | NC | N/A | U | WOOD SILLS: All wood sills are bolted to the foundation. (Commentary: Sec. A.5.3.4. Tier 2: Sec. 5.7.3.3) | |
| C | NC | N/A | U | GIRDER-COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support. (Commentary: Sec. A.5.4.1. Tier 2: Sec. 5.7.4.1) | |

High Seismicity: Connections

(Complete the Following Items in Addition to the Items for Low and Moderate Seismicity)

| | | | | | |
|---|----|-----|---|--|--|
| C | NC | N/A | U | WOOD SILL BOLTS: Sill bolts are spaced at 6 ft (1.8 m) or less with acceptable edge and end distance provided for wood and concrete. (Commentary: A.5.3.7. Tier 2: Sec. 5.7.3.3) | |
|---|----|-----|---|--|--|

High Seismicity: Diaphragms

| | | | | | |
|---|----|-----|---|--|---|
| C | NC | N/A | U | DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (Commentary: Sec. A.4.1.1. Tier 2: Sec. 5.6.1.1) | <i>There is a step in the roof in multiple locations.</i> |
| C | NC | N/A | U | ROOF CHORD CONTINUITY: All chord elements are continuous, regardless of changes in roof elevation. (Commentary: Sec. A.4.1.3. Tier 2: Sec. 5.6.1.1) | <i>Chords are not continuous in all areas where roof framing changes span directions.</i> |
| C | NC | N/A | U | DIAPHRAGM REINFORCEMENT AT OPENINGS: There is reinforcing around all diaphragm openings larger than 50% of the building width in either major plan dimension. (Commentary: Sec. A.4.1.8. Tier 2: Sec. 5.6.1.5) | |
| C | NC | N/A | U | STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1. Tier 2: Sec. 5.6.2) | <i>All roofing is diagonally sheathed.</i> |



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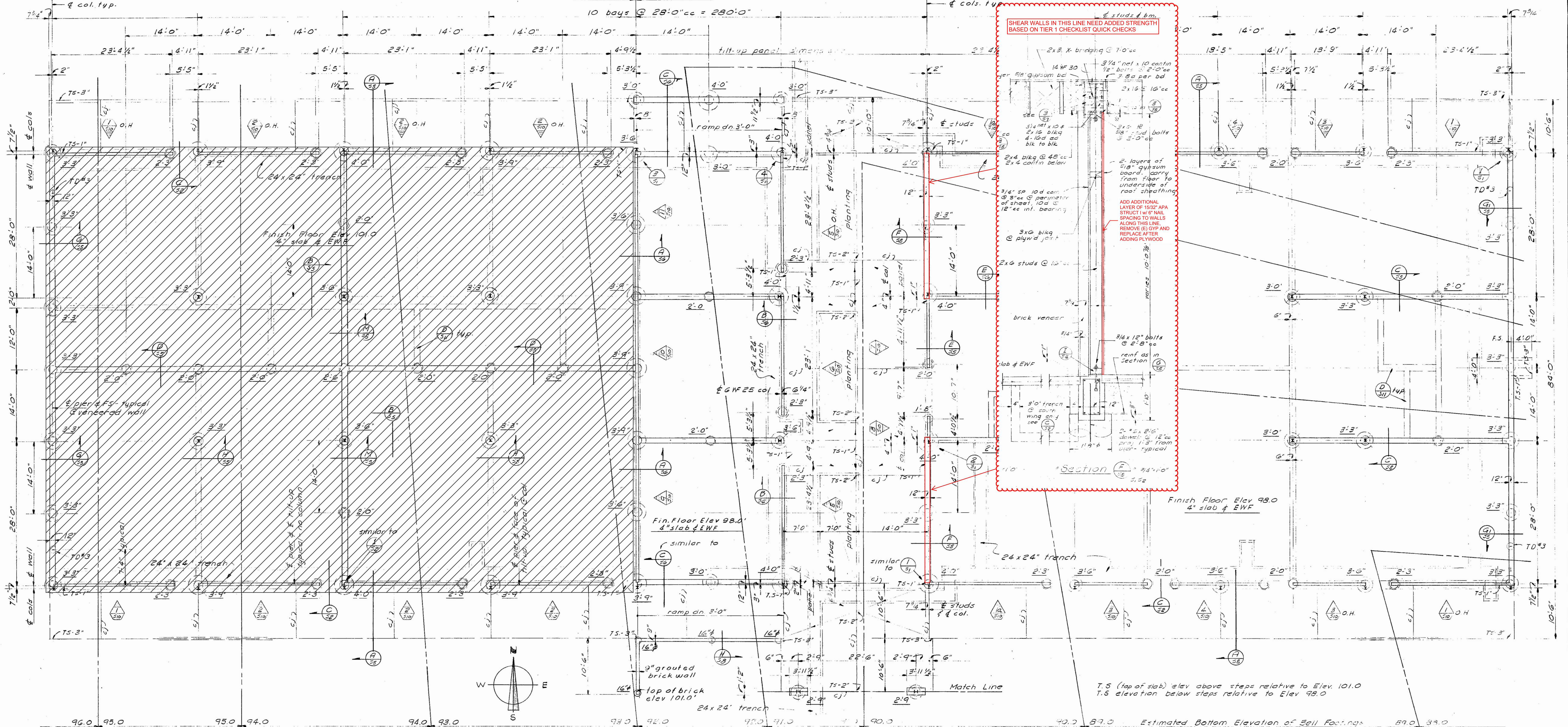
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| | | |
|------------|--|--|
| C NC N/A U | SPANS: All wood diaphragms with spans greater than 24 ft (7.3 m) consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2. Tier 2: Sec. 5.6.2) | <i>All diaphragm sheathing consists of plywood panels or diagonal sheathing.</i> |
| C NC N/A U | DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft (12.2 m) and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3. Tier 2: Sec. 5.6.2) | |
| C NC N/A U | OTHER DIAPHRAGMS: The diaphragm does not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1. Tier 2: Sec. 5.6.5) | |

Fin Floor Elev 101.0' Fin Floor Elev 98.0'

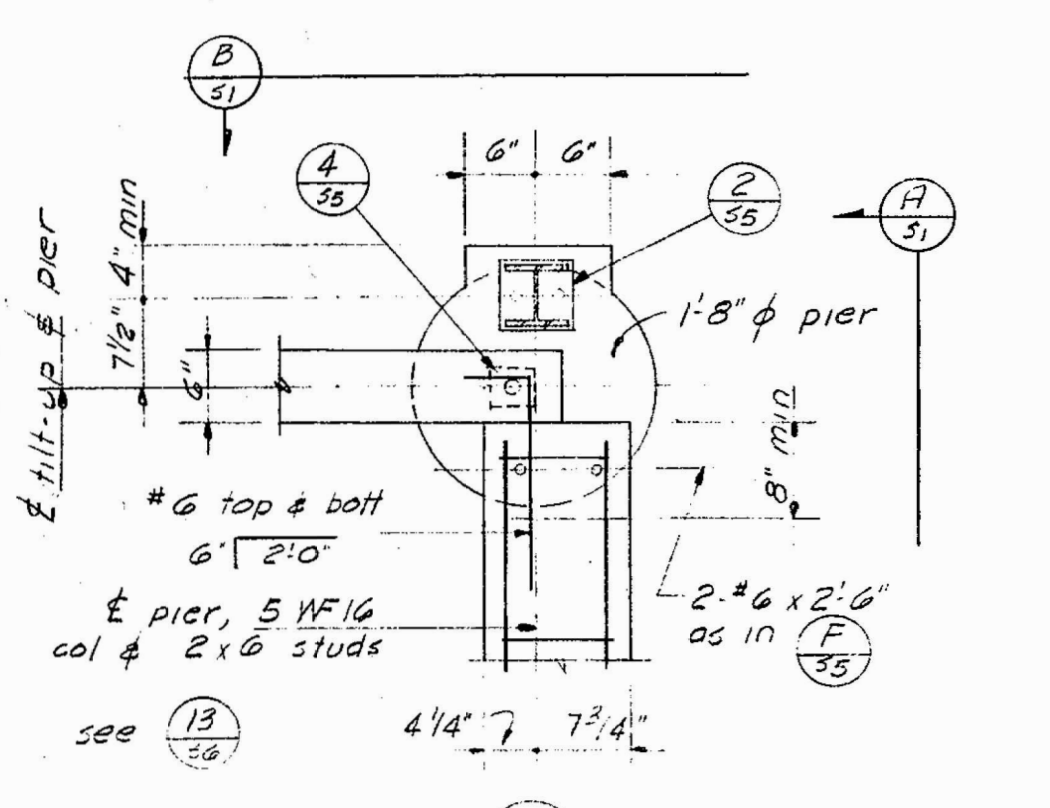
10 bays @ 28'-0" = 280'-0"



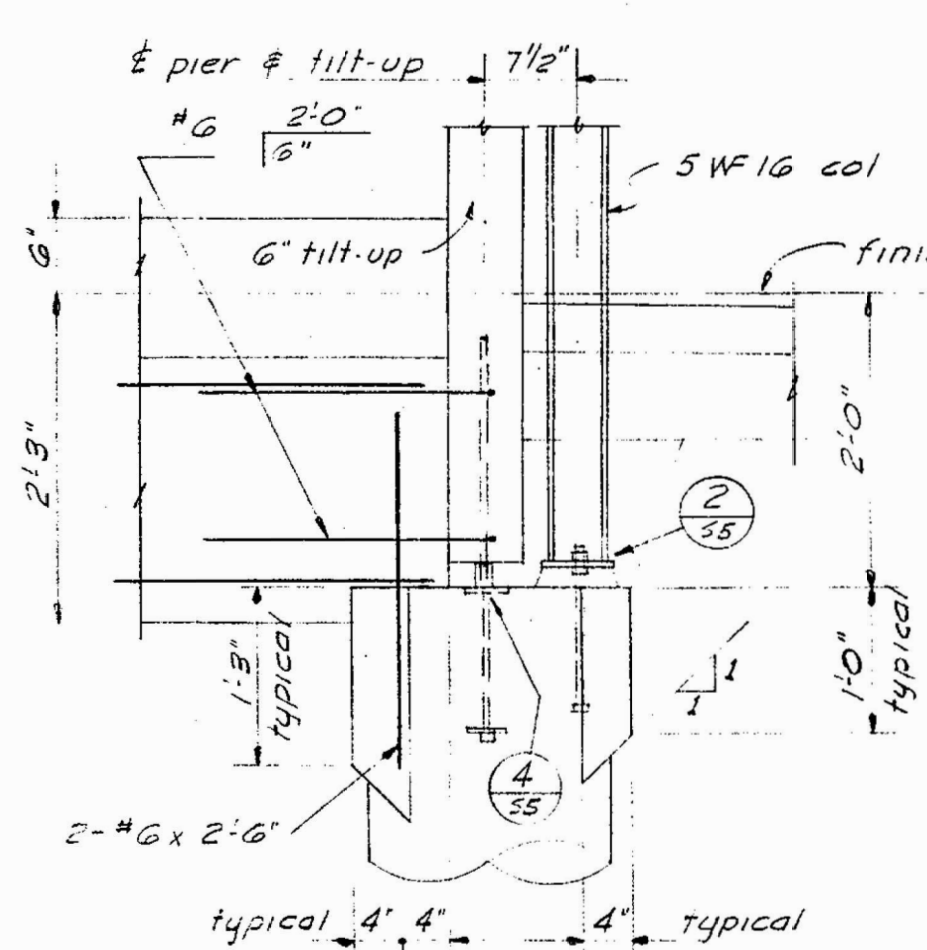
Foundation Plan @ North Wing 1/8"=1'-0"

T.S (top of slab) elev above steps relative to Elev. 101.0
T.S elevation below steps relative to Elev 98.0

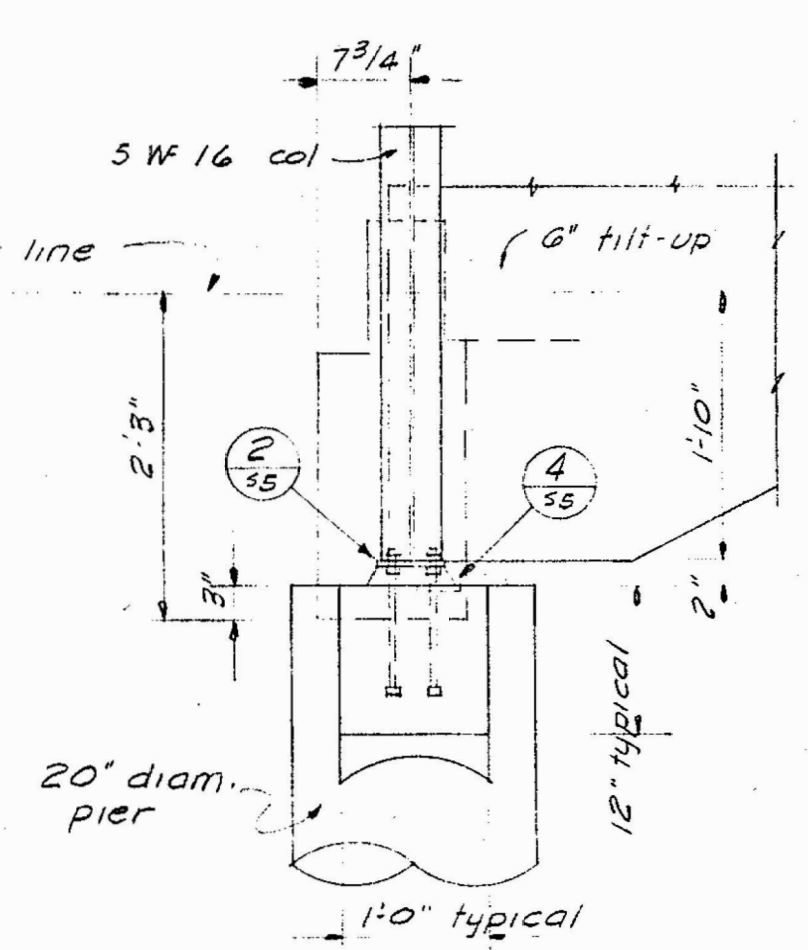
Estimated Bottom Elevation of Bell Footings
For purposes of estimating. Actual depth to be determined by Structural Engineer on jobsite.



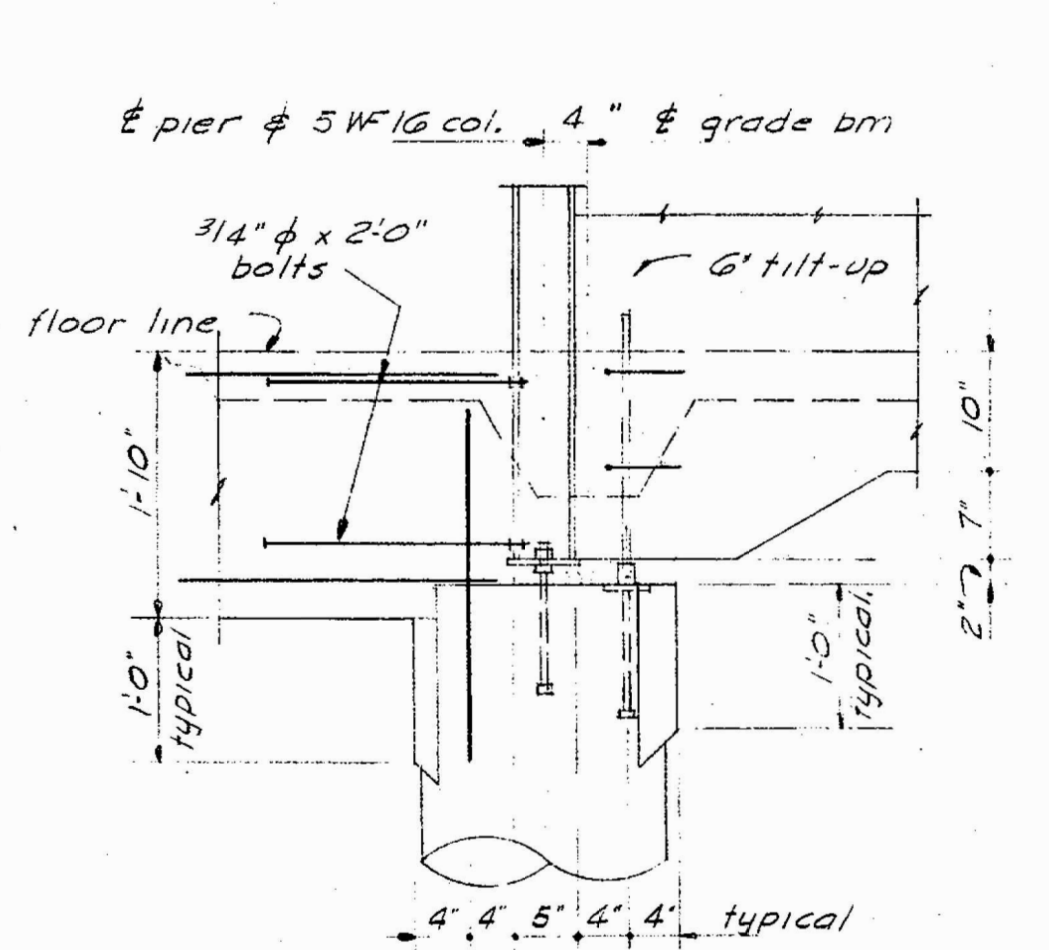
Detail 1 3/4"=1'-0"



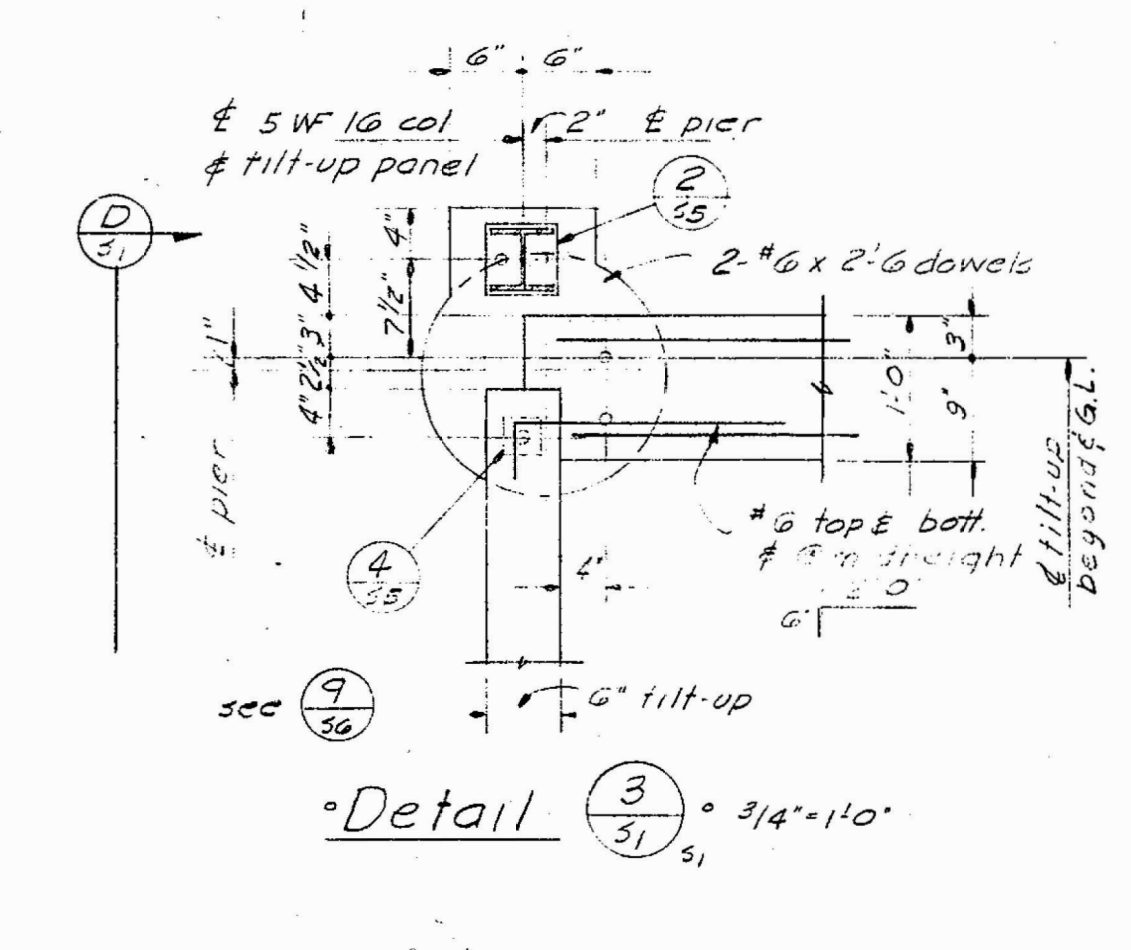
Section A 3/4"=1'-0"



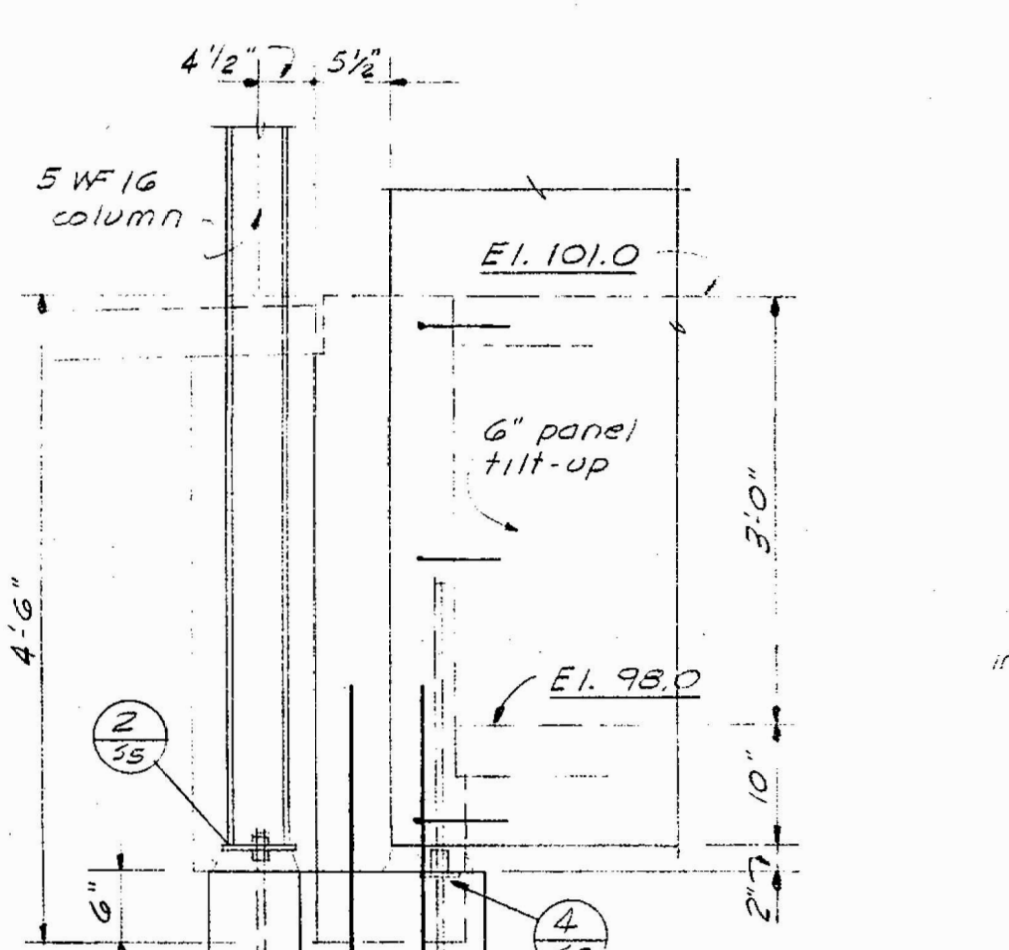
Section B 3/4"=1'-0"



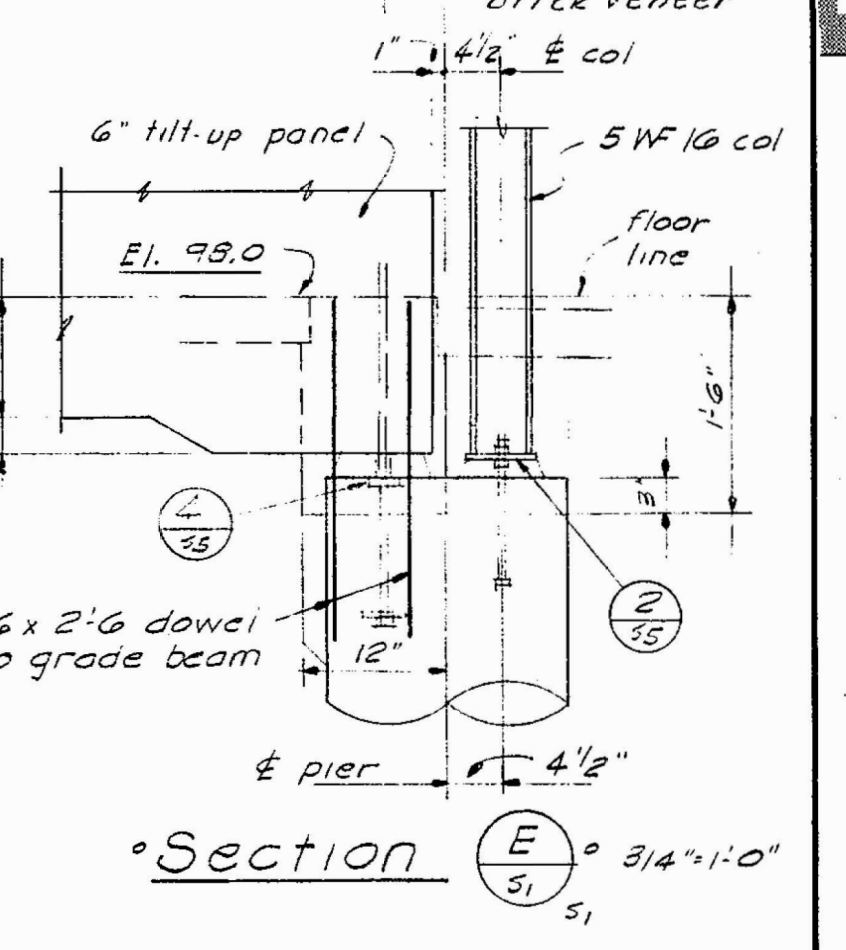
Section C 3/4"=1'-0"



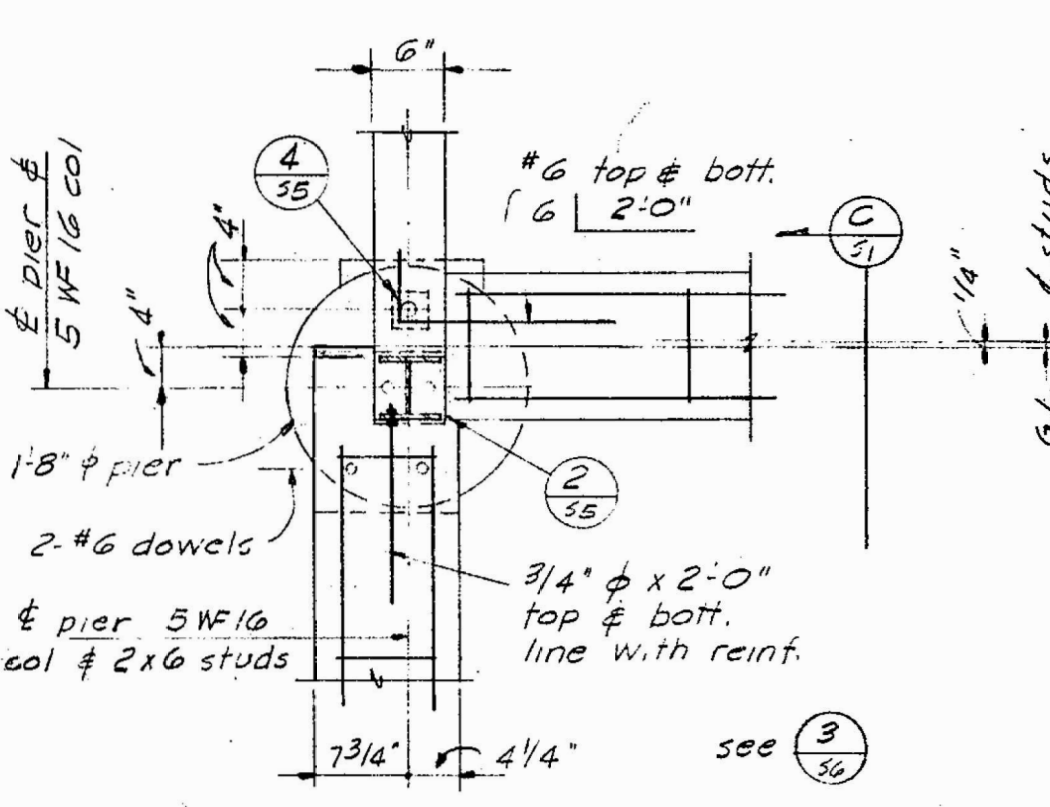
Detail 3 3/4"=1'-0"



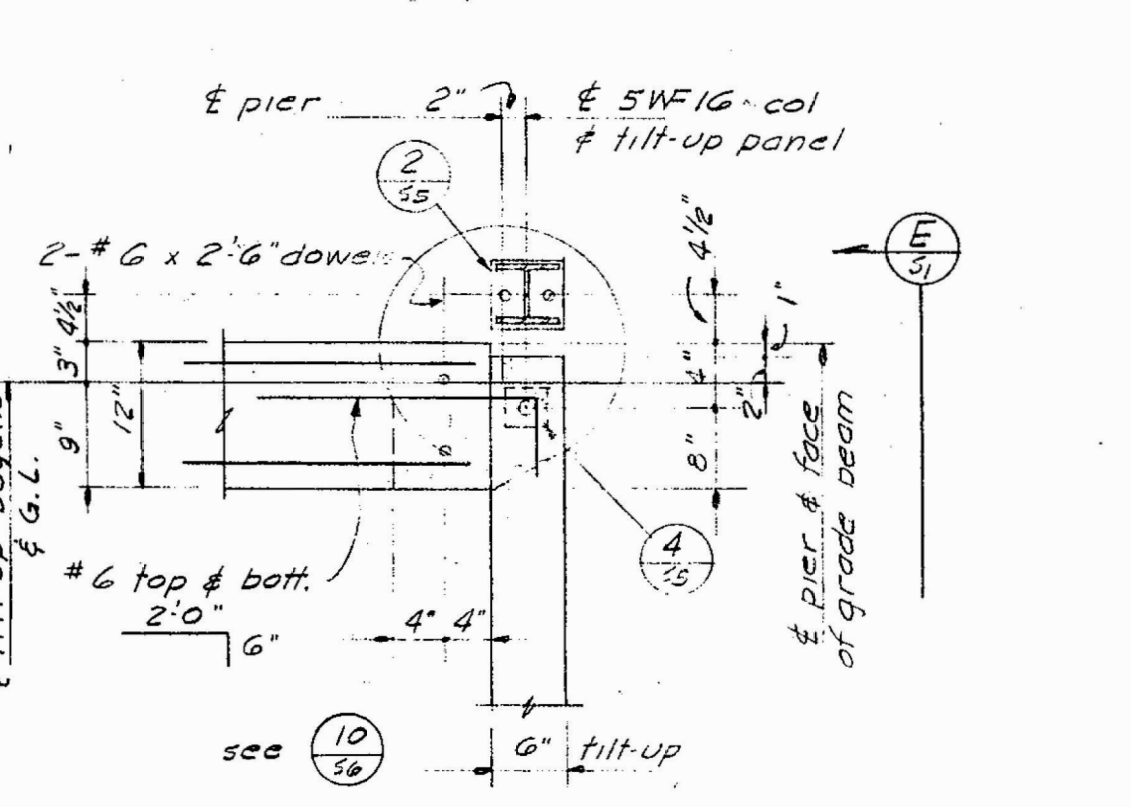
Section D 3/4"=1'-0"



Section E 3/4"=1'-0"



Detail 2 3/4"=1'-0"

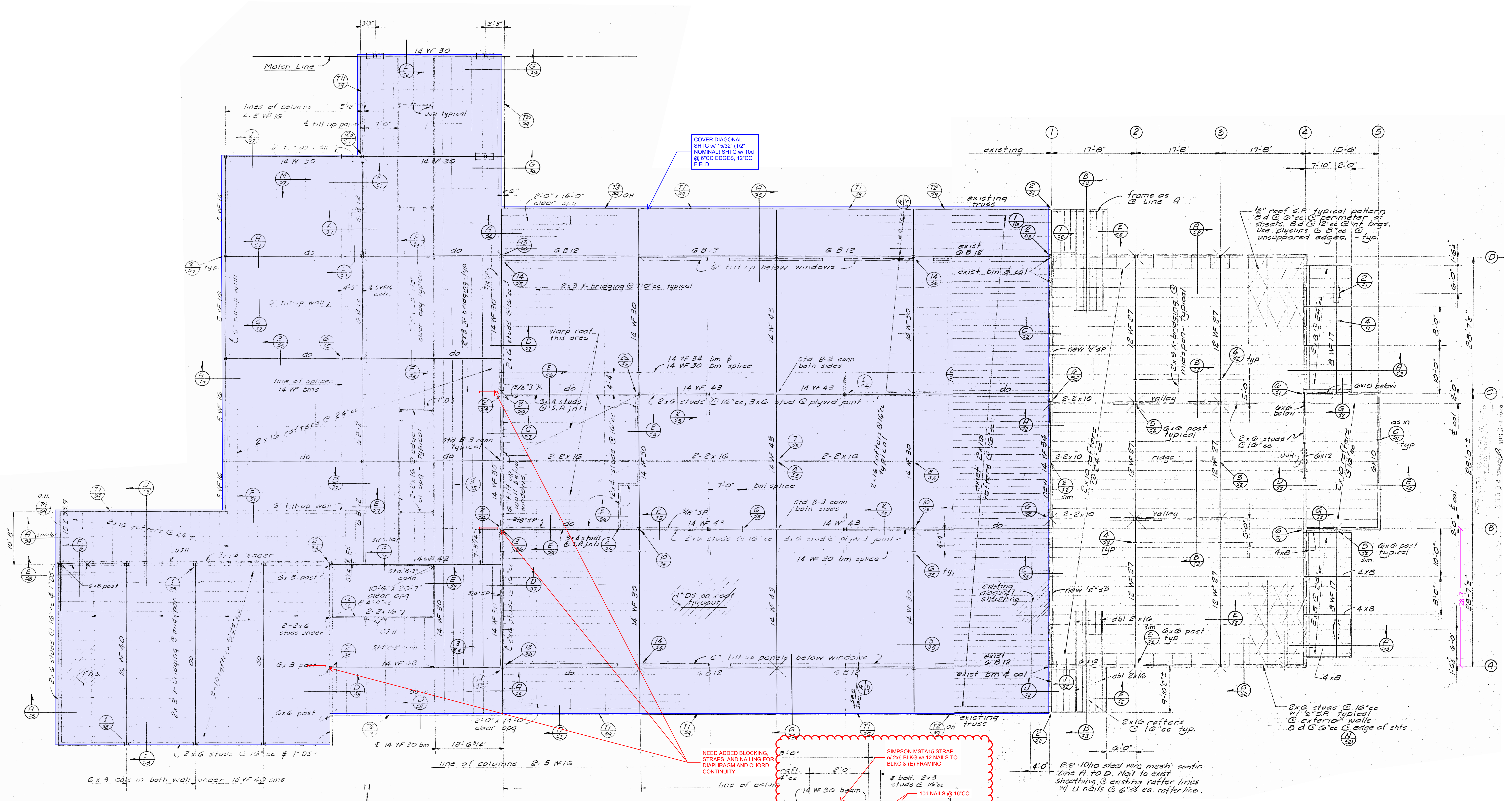


Detail 4 3/4"=1'-0"

Note:
All steel columns extending below slabs to be covered with minimum of 3" of concrete as in sections (3), (4), (5)

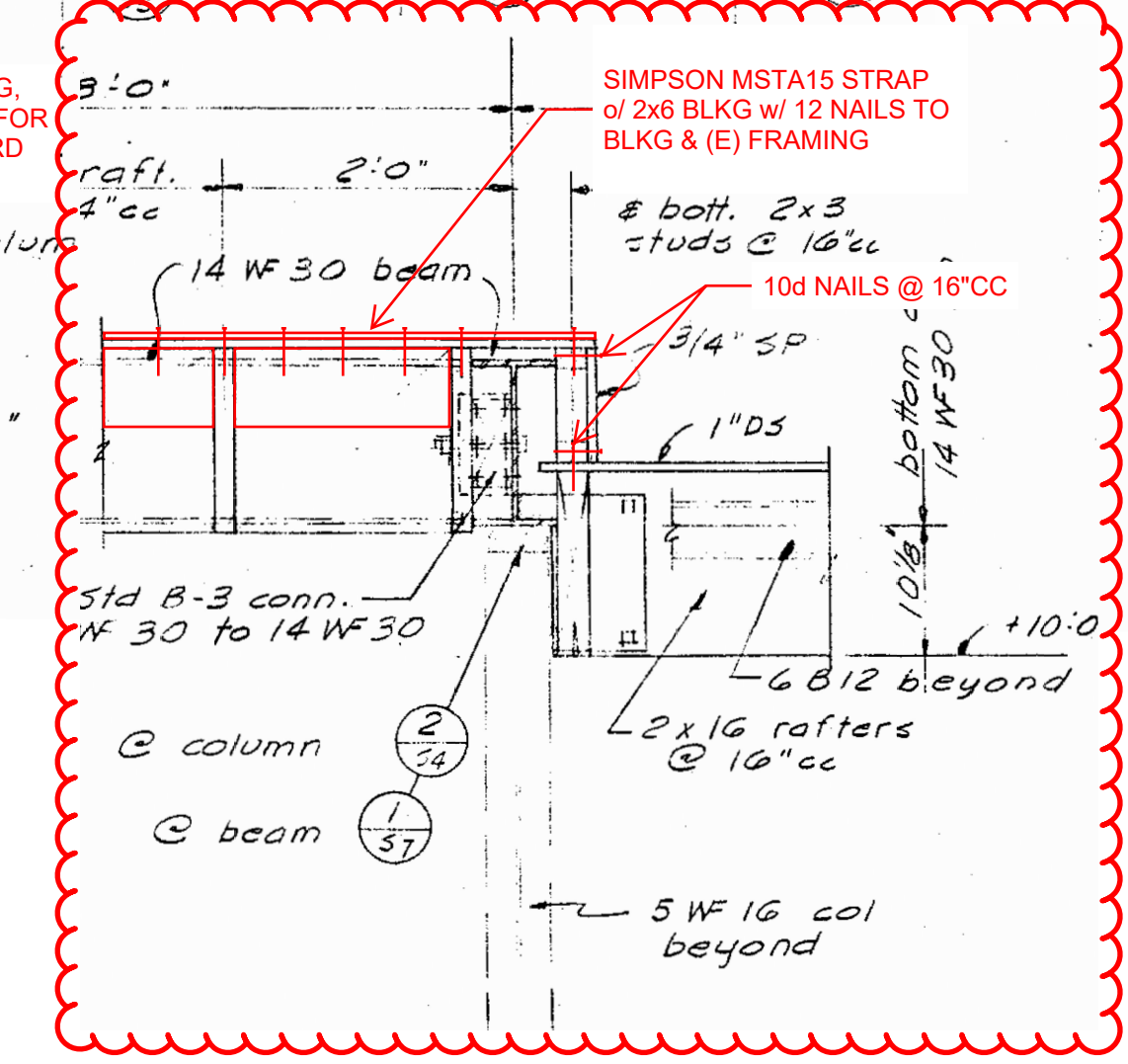
Note:
Carrels on piers shown on this sheet are typical for all piers eccentrically loaded. Minimum coverage of bolts & dowels in piers to be 4"

| | | |
|---|---|--|
| APPROVALS AMERICAN RIVER JUNIOR COLLEGE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS DIVISION OF ARCHITECTURE Ray P. Kinnaman | REVISIONS NO. DATE DRAWN TRACED CHECKED | STRUCTURAL ENGINEER , W. A. BEHMER SACRAMENTO, CALIFORNIA MECHANICAL ENGINEER , L. A. O'NEARA SACRAMENTO, CALIFORNIA ELECTRICAL ENGINEER , C. W. COOK SACRAMENTO, CALIFORNIA |
| | | |
| BAROVETTO & THOMAS ARCHITECTS 718 ALHAMBRA BLVD. SACRAMENTO | | |
| AMERICAN RIVER JUNIOR COLLEGE CALIFORNIA AND SCIENCE, MATH & ENGINEERING | | |
| S1 OF SHEETS | | |

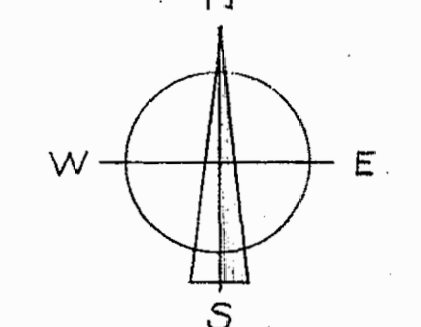


•Roof Framing Plan of South Wing- 1/2"=1'-0"

NEED ADDED BLOCKING, STRAPS, AND NAILING FOR DIAPHRAGM AND CHORD CONTINUITY



4'-0" P.E. 1010 steel wire mesh contin Line A to D. Nail to crust sheathing @ existing rafter lines w/ U nails @ 6" ed ea. rafter line.



2023.06.01 APPROVED: MTS, J. W. BIRD

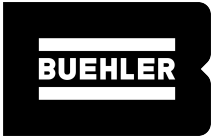


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CALCULATIONS



PROJECT LRCCD ARC Science Building

PROJECT NO. 2026-0119 DATE _____

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TABLE 317.5—SEISMIC PERFORMANCE REQUIREMENTS^{2,3} BY BUILDING REGULATORY AUTHORITY AND RISK CATEGORY

| BUILDING REGULATORY AUTHORITY | RISK CATEGORY | PERFORMANCE CRITERIA ¹ | |
|---|---------------|-----------------------------------|------------------|
| | | Level 1 | Level 2 |
| State-Owned [BSC] | I, II, III | BSE-R, S-3, N-C | BSE-C, S-5, N-D |
| State-Owned [BSC] | IV | BSE-R, S-1, N-B | BSE-C, S-3, N-D |
| Division of the State Architect - [DSA-SS] | I | BSE-1N, S-3, N-B | BSE-2N, S-5, N-D |
| Division of the State Architect - [DSA-SS] | II, III | BSE-1N, S-2, N-B | BSE-2N, S-4, N-D |
| Division of the State Architect - [DSA-SS] ⁴ | IV | BSE-1N, S-1, N-A | BSE-2N, S-3, N-D |
| Division of the State Architect - [DSA-SS/CC] | I, II | BSE-1E, S-3, N-C | BSE-2N, S-5, N-D |
| Division of the State Architect - [DSA-SS/CC] | III | BSE-1E, S-3, N-B | BSE-2N, S-5, N-D |
| Division of the State Architect - [DSA-SS/CC] | IV | BSE-1E, S-1, N-B | BSE-2N, S-3, N-D |

- ASCE 41 provides acceptance criteria (e.g., m-factor, rotation) for Immediate Occupancy (S1), Life Safety (S3) and Collapse Prevention (S5), and specifies in Table 2-1 the method to interpolate values for S-2 and S-4. When evaluating for the Hazards Reduced Nonstructural Performance Level, the requirements need not be greater than what would be required by ASCE 7 nonstructural provisions for new construction.
- Buildings evaluated and retrofitted to meet the structural and nonstructural requirements for a new building as given in the California Building Code as adopted by DSA or BSC, as applicable, are deemed to meet the seismic performance requirements of this section.
- Buildings complying with the requirements of the exception in Section 319.1 are deemed to meet the seismic performance requirements of this section.
- State-owned and state-leased essential services buildings are subject to the regulatory authority of DSA-SS per Section 1.9.2.1.

Table 2-1. Structural Performance Levels.

| Structural Performance Level | Designation | Post-Earthquake Damage State Description |
|---------------------------------------|-------------|---|
| Immediate Occupancy | S-1 | The structure remains safe to occupy and essentially retains its pre-earthquake strength and stiffness. |
| Damage Control | S-2 | A damage state between Performance Levels S-3 and S-1. Acceptance criteria for evaluation or retrofit based on the Damage Control Structural Performance Level shall be taken as halfway between those for Immediate Occupancy and Life Safety. |
| Life Safety | S-3 | The structure has damaged components but retains a margin of safety against the onset of partial or total collapse. |
| Limited Safety | S-4 | A damage state between Performance Levels S-3 and S-5. Acceptance criteria for evaluation or retrofit based on the Limited Safety Structural Performance Level shall be taken halfway between those for Life Safety and Collapse Prevention. |
| Collapse Prevention | S-5 | The structure has damaged components and continues to support gravity loads but retains no margin against collapse. |
| Structural Performance Not Considered | S-6 | Used where an evaluation or retrofit does not address the structure. |

Table 4-6. Checklists Required for a Tier 1 Screening.

Required Checklists^a

| Level of Seismicity ^b | Level of Building Performance ^c | Very Low Seismicity Checklist (Section 17.1.1) | Basic Configuration Checklist (Section 17.1.2) | Collapse Prevention Checklist (Sections 17.2 through 17.18) | Immediate Occupancy Checklist (Sections 17.2 through 17.18) | Hazards Reduced or Life Safety Nonstructural Checklist (Section 17.19) | Position Retention Nonstructural Checklist (Section 17.19) |
|----------------------------------|--|--|--|---|---|--|--|
| Very low | CP | X | | | | | |
| Very low | IO | | X | | X | | X |
| Low | CP | | X | X | | X | |
| Low | IO | | X | | X | | X |
| Moderate | CP | | X | X | | X | |
| Moderate | IO | | X | | X | | X |
| High | CP | | X | X | | X | |
| High | IO | | X | | X | | X |

^aAn X designates the checklist that must be completed for a Tier 1 screening as a function of the Level of Seismicity and Level of Performance.

^bDefined in Section 2.5.

^cCP = Collapse Prevention Performance Level, and IO = Immediate Occupancy Performance Level (defined in Section 2.2.1).



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LEVEL OF SEISMICITY

ASCE 41-22 Section 2.5

Location Sacramento
 Number of Stories 1
 Building Height, h_n 12 ft
 Site Class D
 Effective Viscous Damping Ratio 5 %
 Risk Category II

ASCE 41-22 Section 7.2.3.6

N-S Direction

Building Type: Wood Frames, Commercial and Industrial (W2)

E-W Direction

Building Type: Wood Frames, Commercial and Industrial (W2)

| Seismic Hazard Level | BSE-1E | BSE-2E | BSE-1N | BSE-2N |
|--|-----------|----------|----------|----------|
| Short period response acceleration, S_s | 0.39 g | 0.65 g | 0.850g | 0.850g |
| 1-second period response acceleration, S_1 | 0.26 g | 0.44 g | 0.570g | 0.570g |
| Adjusted Short period response acceleration, S_{XS} | 0.58032 g | 0.832 g | 0.68 g | 1.02 g |
| Adjusted 1-second period response acceleration, S_{X1} | 0.5408 g | 0.8184 g | 0.6574 g | 0.9861 g |

Design Spectral Response Acceleration Parameter

Associated with BSE-2N & Table 2-4

$S_{DS} = 2/3 S_{XS} = 0.680 \text{ g}$ ----> High
 $S_{D1} = 2/3 S_{X1} = 0.657 \text{ g}$ ----> High

ASCE 41-22 Eq 2-4

ASCE 41-22 Eq 2-5

| |
|-----------------------------------|
| Level of Seismicity : High |
|-----------------------------------|



JOB LRCCD ARC Science Building
 JOB NO. 2026-0119 DATE 3/18/2026
 CLIENT _____ BY GRF SHEET NO. _____

PSEUDO SEISMIC FORCE - TIER 1

ASCE 41-22 Section 4.4.2

N-S Direction

Seismic Hazard Level BSE-1E
 Performance Level LS (Life Safety)
 Location Sacramento
 Number of Stories 1
 Building Height $h_n = 12$ ft (height above the base to the roof level)
 Site Class D
 Building Type Wood Frames, Commercial and Industrial (W2)

Building Period

ASCE 41-22 Section 4.4.2.4

$C_t = 0.02$ Modification Factor to Adjust Building Period
 0.035 for steel moment frame (S1 & S1a)
 0.018 for concrete moment frame (C1)
 0.03 for eccentrically braced steel frame (S2 & S2a)
 0.020 for all other framing systems
 $\beta = 0.75$ (0.8 for steel moment frame; 0.9 for concrete moment frame; 0.75 for all others)
 $T = C_t h_n^\beta = 0.13$ sec Fundamental period of the building *ASCE 41-22 Eq 4-4*

Response Spectral Acceleration

| | | |
|---|-----------------------------|-------------------------------|
| Adjusted Short period response acceleration | $S_{XS} = F_a S_s = 0.39$ g | <i>ASCE 41-22 Eq 2-1</i> |
| Adjusted 1-second period response acceleration | $S_{X1} = F_v S_1 = 0.26$ g | <i>ASCE 41-22 Eq 2-2</i> |
| Factor to adjust short-period spectral acceleration | $F_a = 1.600$ | <i>ASCE 7-22 Table 11.4-1</i> |
| Factor to adjust 1 sec. spectral acceleration | $F_v = 2.400$ | <i>ASCE 7-22 Table 11.4-2</i> |

$S_a = \frac{S_{X1}}{T} = 2.016$ g > $S_{XS} = 0.39$ g *ASCE 41-22 Eq 4-3*

$S_a = 0.39$ g

$V = C S_a W = 0.507 W$ *ASCE 41-22 Eq 4-1*

Where

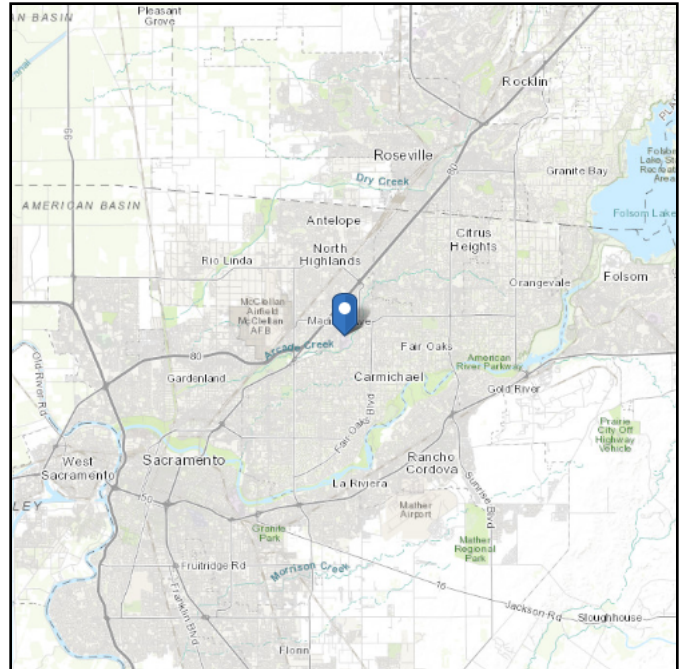
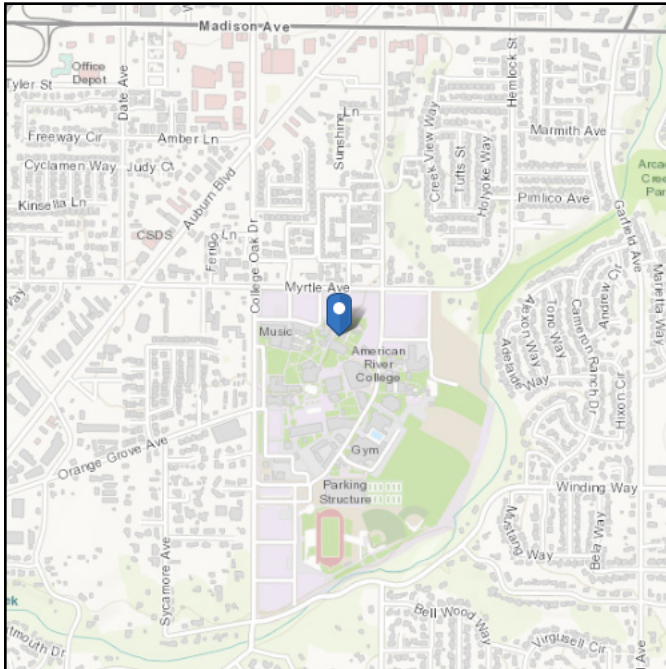
$C = 1.3$ Modification factor *ASCE 41-22 Table 4-7*

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 41-23
Risk Category: NaN
Soil Class: Default

Latitude: 38.652279
Longitude: -121.347496
Elevation: 100.20832697963223 ft
(NAVD 88)



Site Soil Class: Default

Hazard Level BSE-2N:

S_{XS} : 0.85 S_{X1} : 0.57

Hazard Level BSE-1N:

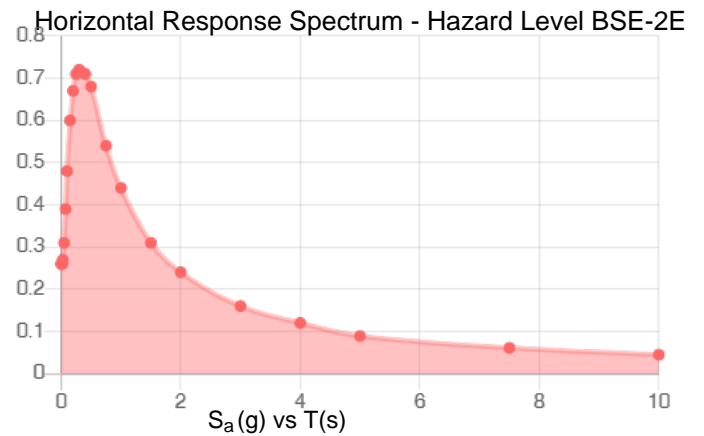
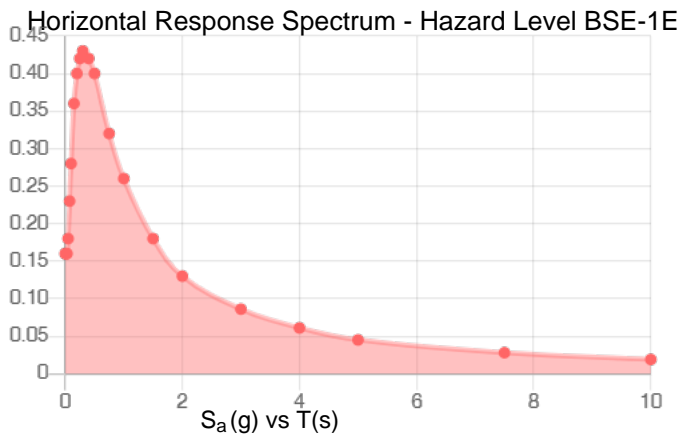
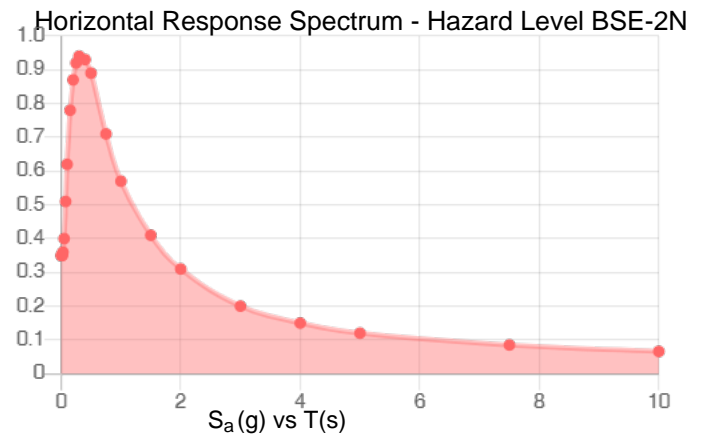
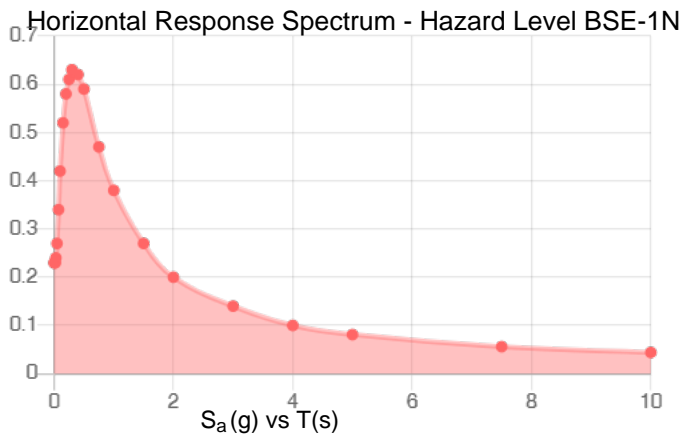
S_{XS} : 0.57 S_{X1} : 0.38

Hazard Level BSE-2E:

S_{XS} : 0.65 S_{X1} : 0.44

Hazard Level BSE-1E:

S_{XS} : 0.39 S_{X1} : 0.26



Data Accessed: Thu Mar 19 2026

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Design Loads

A: Roof Loads – North Wing

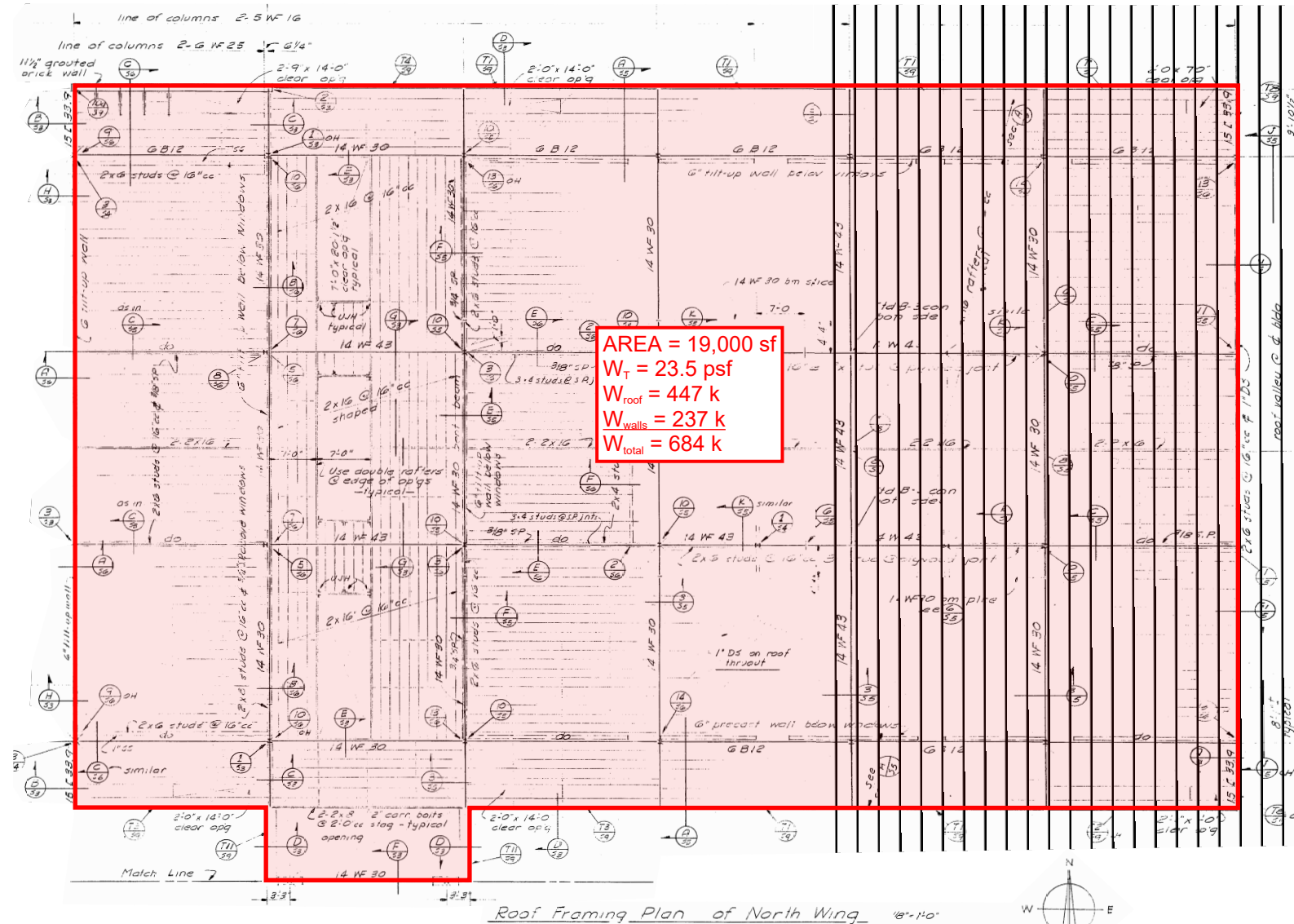
| | Decking | Joists | Girders | Columns | Seismic |
|-------------------------------------|----------|----------|----------|----------|----------|
| 4-ply built up w/ cap sheet roofing | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 6" rigid insulation | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 1" Diagonal Shtg | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 2x16 @ 16"CC | | 3.5 | 3.5 | 3.5 | 3.5 |
| WF Girder | | | 3.1 | 3.1 | 3.1 |
| WF Column | | | | 1.0 | 1.0 |
| 5/8" gyp board ceiling | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Sprinklers | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| MEP | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Miscellaneous | 2.0 | 1.5 | 1.4 | 1.4 | 1.4 |
| Dead Load | 16.5 psf | 19.5 psf | 22.5 psf | 23.5 psf | 23.5 psf |
| Live Load (reducible roof) | 20.0 psf | 20.0 psf | 20.0 psf | 20.0 psf | 0.0 psf |
| Live Load (partition) | 0.0 psf | 0.0 psf | 0.0 psf | 0.0 psf | 5.0 psf |
| Total Load | 36.5 psf | 39.5 psf | 42.5 psf | 43.5 psf | 28.5 psf |

N: Wall Loads – Concrete, CMU, Stud

| Wall Finish: | 6" Conc Full Height | 6" Conc Partial Height | 4" Stud Shear Wall | 6" Stud Wall w/ Veneer | 6" Stud Wall w/ Veneer | 6" Stud Wall |
|------------------|------------------------|------------------------------|--------------------------|------------------------------|------------------------------|-----------------|
| Concrete wall | 75.0 | 75.0 | | | | |
| Brick Veneer | | | | 39.0 | 39.0 | |
| 6" wood stud | | | 1.1 | 1.5 | 1.5 | 1.5 |
| 5/8" gyp board | | | 11.2 | 5.6 | 5.6 | 2.8 |
| Sheathing | | | 1.5 | 3.4 | 2.3 | |
| insulation | | | 1.0 | 1.0 | 1.0 | 1.0 |
| MEP | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| misc | 1.5 | 1.5 | 1.2 | 1.5 | 1.6 | 1.2 |
| Dead Load | 77.0 psf | 77.0 psf | 16.5 psf | 52.5 psf | 51.5 psf | 7.0 psf |

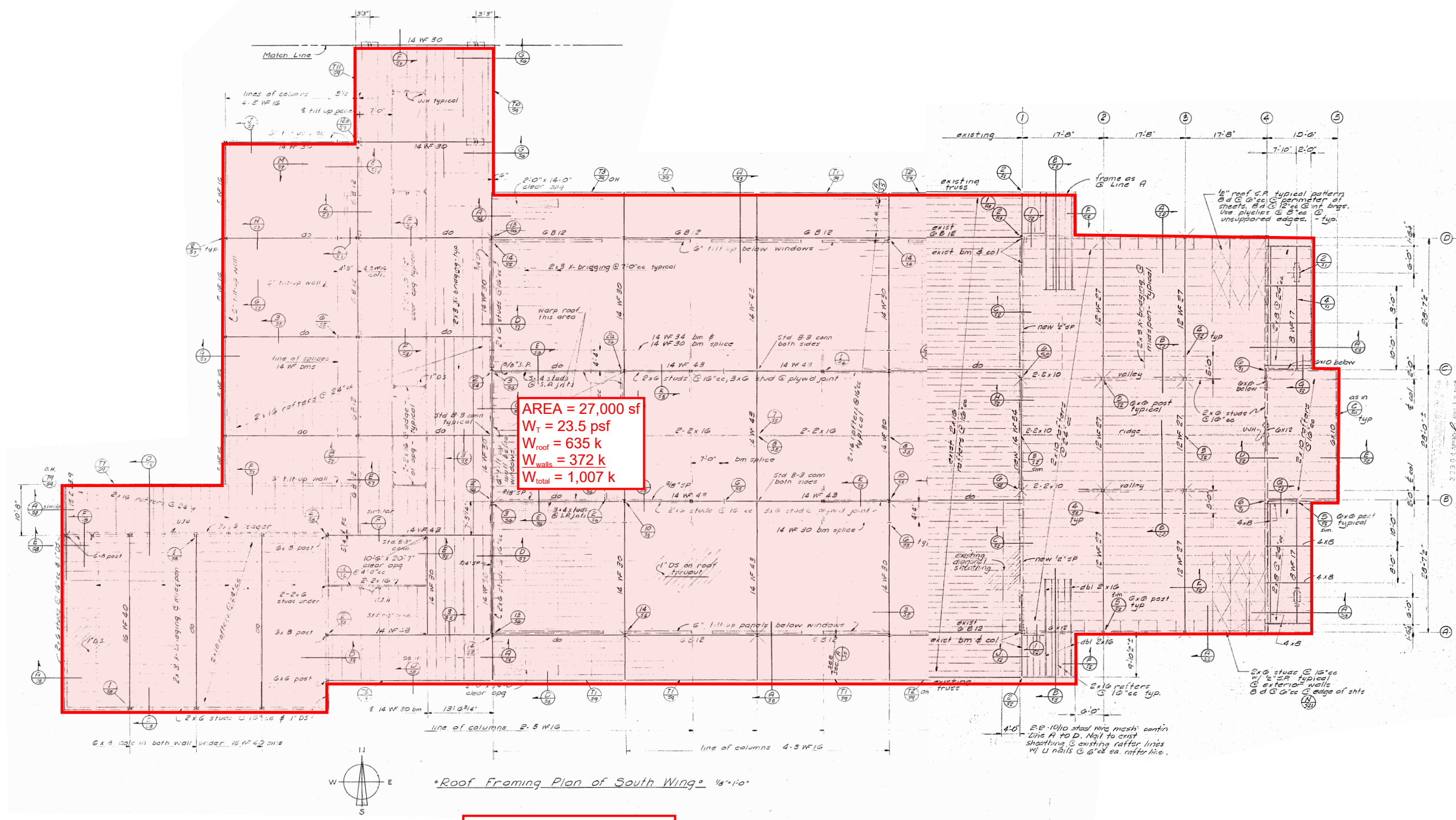
Notes:

1. Seismic weight and wall weight are the same for these walls.

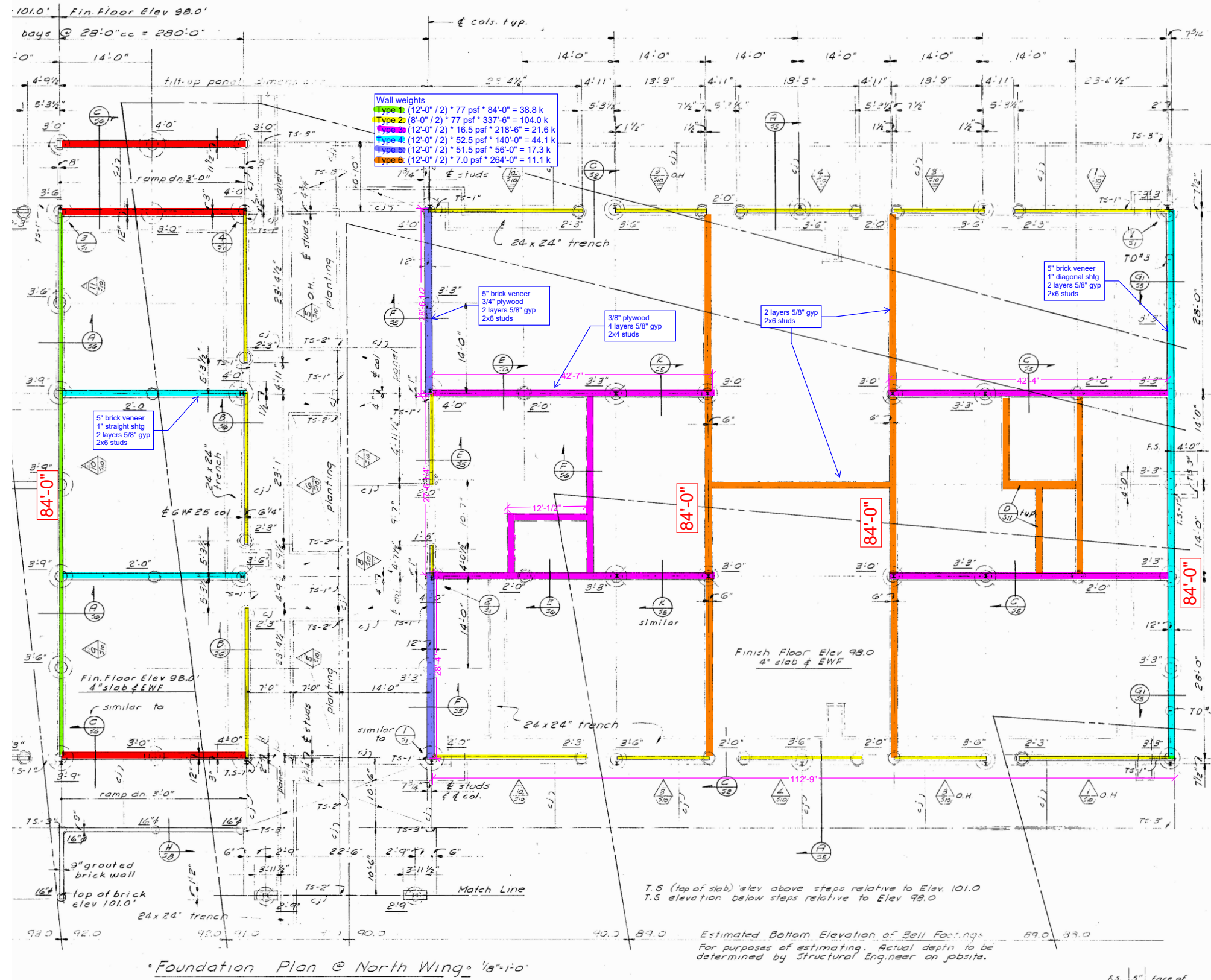


Roof Framing Plan of North Wing 16'-110'

North Wing Roof Framing Plan



South Wing Roof Framing Plan

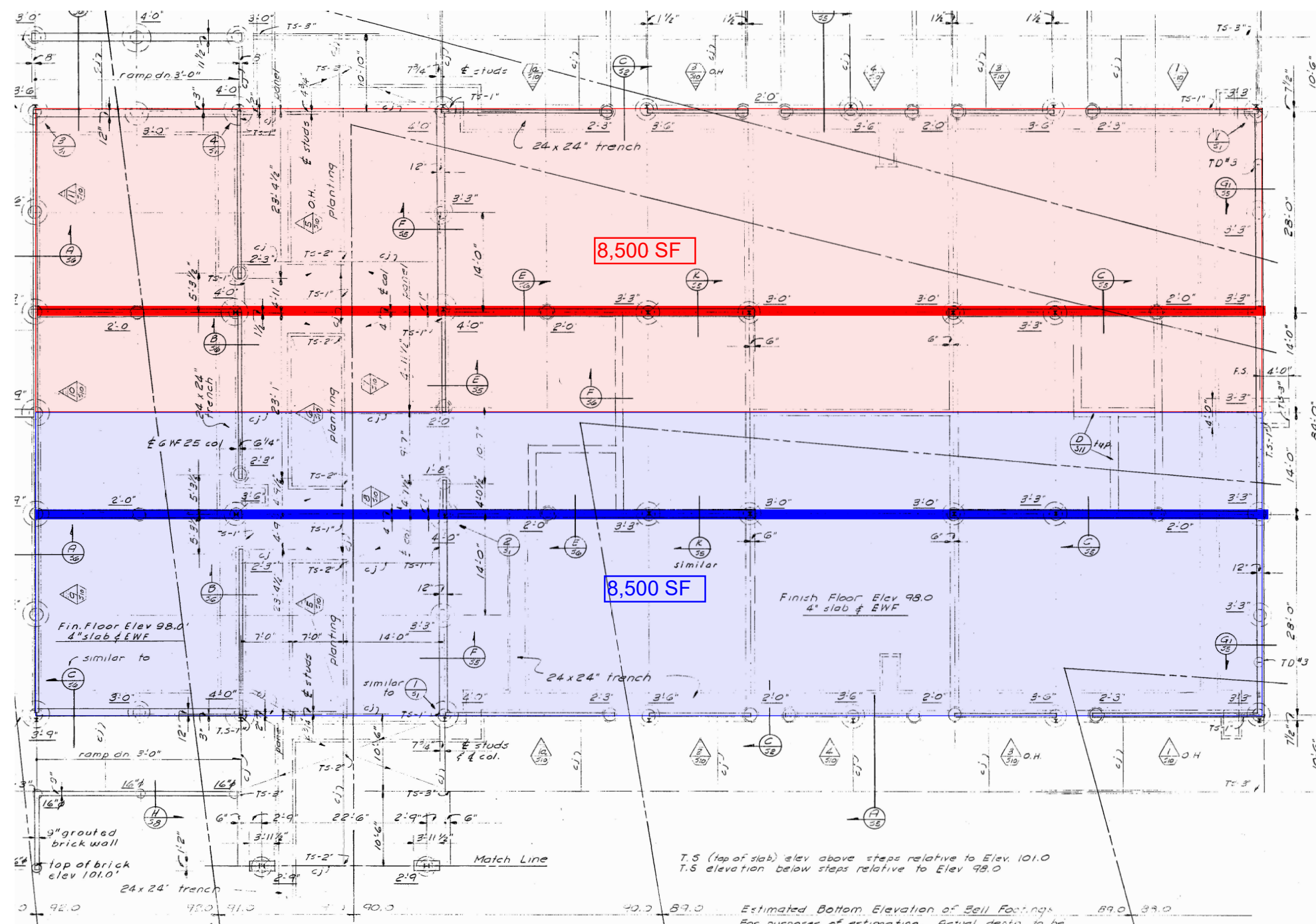


• Foundation Plan @ North Wing 1/8"=1'-0"

T.S (top of slab) elev above steps relative to Elev. 101.0
T.S elevation below steps relative to Elev 98.0
Estimated Bottom Elevation of Soil Footings 89.0 89.0
For purposes of estimating. Actual depth to be determined by Structural Engineer on jobsite.

A.S. 1/5" face of

NORTH WING WALL TYPES



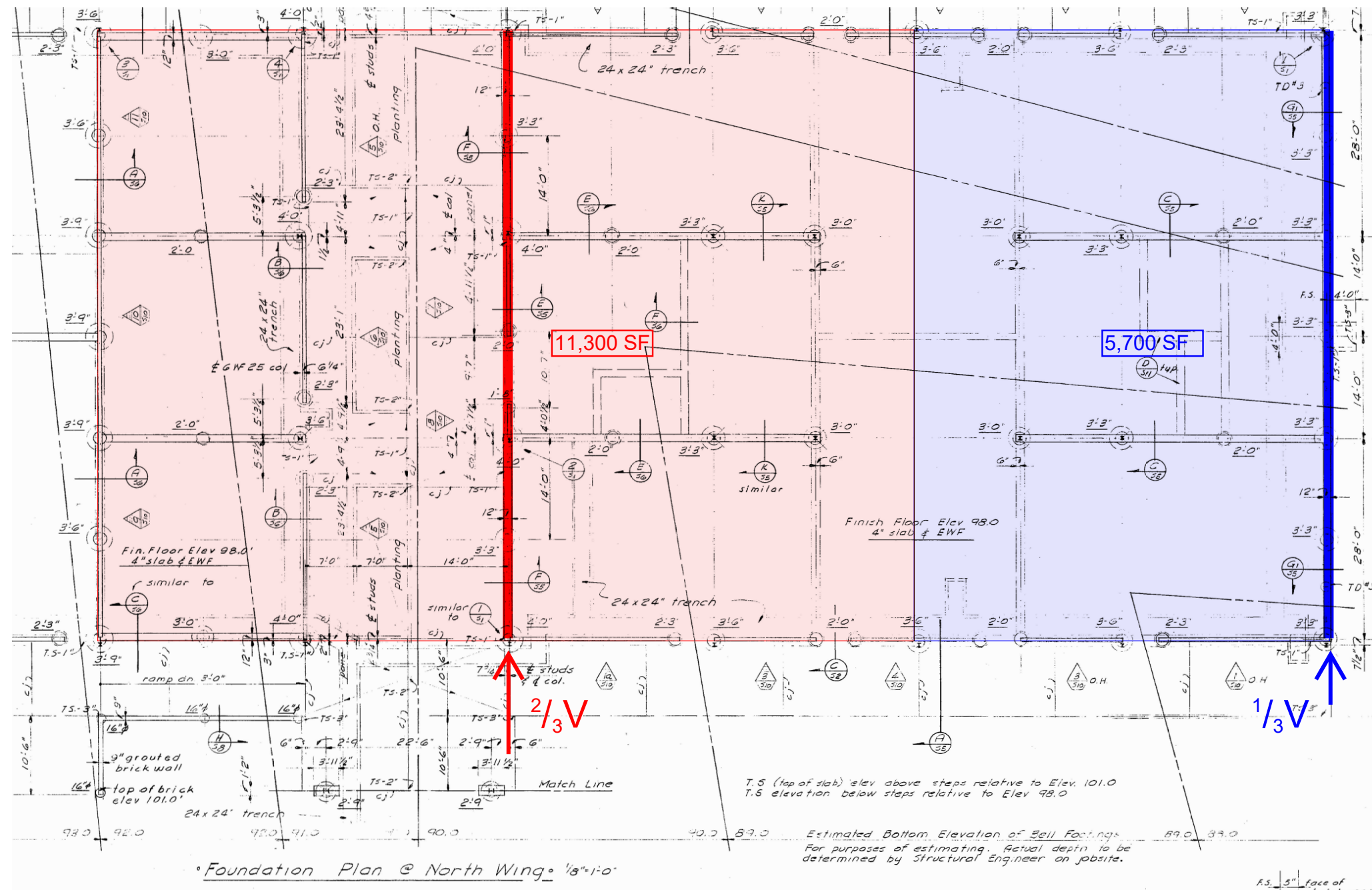
Foundation Plan @ North Wing 1/8"=1'-0"

T.S (top of slab) elev above steps relative to Elev. 101.0
T.S elevation below steps relative to Elev. 98.0

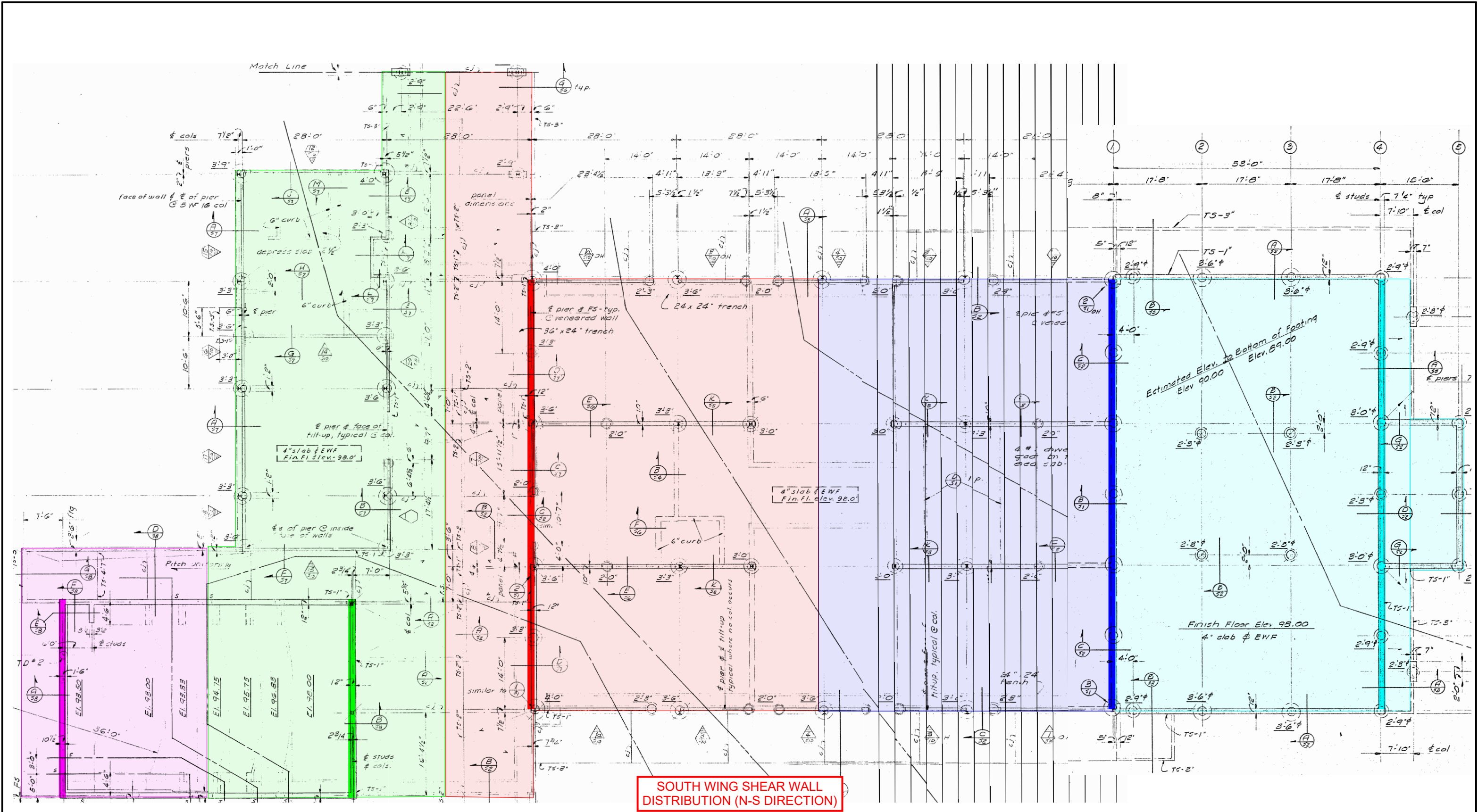
Estimated Bottom Elevation of Bell Footings
For purposes of estimating. Actual depth to be determined by Structural Engineer on jobsite.

F.S. 5" face of brick veneer

**NORTH WING SHEAR WALL
DISTRIBUTION (E-W DIRECTION)**



NORTH WING SHEAR WALL DISTRIBUTION (N-S DIRECTION)



SOUTH WING SHEAR WALL DISTRIBUTION (N-S DIRECTION)



PROJECT LRCCD ARC Science Building

PROJECT NO. 2026-0119 DATE _____

CLIENT _____ BY GRF SHEET NO. _____

PSEUDO SEISMIC FORCE - TIER 1

Seismic Hazard Level: BSE-1E
Performance Level: LS (ASCE 41-23 Table 2-1)

Location: Sacramento
Number of Stories: 1
Mean Building Height: $h_n = 12$ ft
Site Class: D
Building Type: Wood Light Frames (W2)

Building Period (ASCE 41-23 Section 4.4.2.4)

$C_t = 0.02$ (for all other framing systems)
 $\beta = 0.75$ (for all other framing systems)
 $T = C_t H_n^\beta = 0.13$ (Fundamental period of the building, ASCE 41-23 Eq 4-4)

Response Spectral Acceleration (ASCE 41-23 Section 4.4.2.3)

$S_{xs} = 0.39$ g
 $S_{x1} = 0.26$ g

$S_a = S_{x1}/T = 2.016$ g $>$ $S_{xs} = 0.39$ g (Use S_{xs} per ASCE 41-23 Eq 4-3 and Section 4.4.2.3)

$C = 1.3$ for W1 and Single Story Buildings (ASCE 41-23 Table 4-7)
 $V = C S_a W = 0.507 * W$

North Wing = 684k
 $V_N = 0.507 * 637$ k = 347 k

South Wing = 1007 k
 $V_s = 0.507 * 1007$ k = 511 k

PROJECT LRCCD ARC Science BuildingPROJECT NO. 2026-0119 DATE _____CLIENT _____ BY GRF SHEET NO. _____**SHEAR STRESS CHECK IN CONCRETE & WOOD SHEAR WALLS (ASCE 41-23 Section 4.4.3.3)** $M_s = 3.0$ (ASCE 41-23 Table 4-8)

Structural panel sheathing = 1,000 plf

Diagonal sheathing = 700 plf

Straight sheathing = 100 plf

All other conditions = 100 plf (ASCE 41-23 Section A.3.2.8)

North Wing

N-S Direction:

3/4" Plywood Sheathing

 $V_j = 347 \text{ k} * 2/3 = 231 \text{ k}$ $A_w = 56'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(231 \text{ k} / 56') = 1,377 \text{ plf} < 1,000 \text{ plf}$ **NONCOMPLIANT**

1" Diagonal Sheathing

 $V_j = 347 \text{ k} * 1/3 = 116 \text{ k}$ $A_w = 84'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(116 \text{ k} / 84') = 459 \text{ plf} < 700 \text{ plf}$ **COMPLIANT**

E-W Direction:

3/8" Plywood Sheathing

 $A_w = 168'$ $v_j = (1/M_s)*(V/A_w) = (1/3)*(347 \text{ k} / 168') = 688 \text{ plf} < 1,000 \text{ plf}$ **COMPLIANT****South Wing**

N-S Direction:

1" Diagonal Sheathing

 $V_j = 511 \text{ k} * 1/2 = 256 \text{ k}$ $A_w = 132'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(256 \text{ k} / 132') = 646 \text{ plf} < 700 \text{ plf}$ **COMPLIANT**

1/2" Plywood Sheathing

 $V_j = 511 \text{ k} * 1/2 = 256 \text{ k}$ $A_w = 168'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(256 \text{ k} / 168') = 508 \text{ plf} < 1,000 \text{ plf}$ **COMPLIANT**

E-W Direction:

3/4" Plywood Sheathing

 $V_j = 511 \text{ k} * 22,400 \text{ sf} / 27,000 \text{ sf} = 424 \text{ k}$ $A_w = 168'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(424 \text{ k} / 168') = 841 \text{ plf} < 1,000 \text{ plf}$ **COMPLIANT**

1" Diagonal Sheathing

 $V_j = 511 \text{ k} * 4,600 \text{ sf} / 27,000 \text{ sf} = 87 \text{ k}$ $A_w = 112'$ $v_j = (1/M_s)*(V_j/A_w) = (1/3)*(87 \text{ k} / 112') = 259 \text{ plf} < 700 \text{ plf}$ **COMPLIANT**