

Schematic Design (SD) Presentation



Agenda

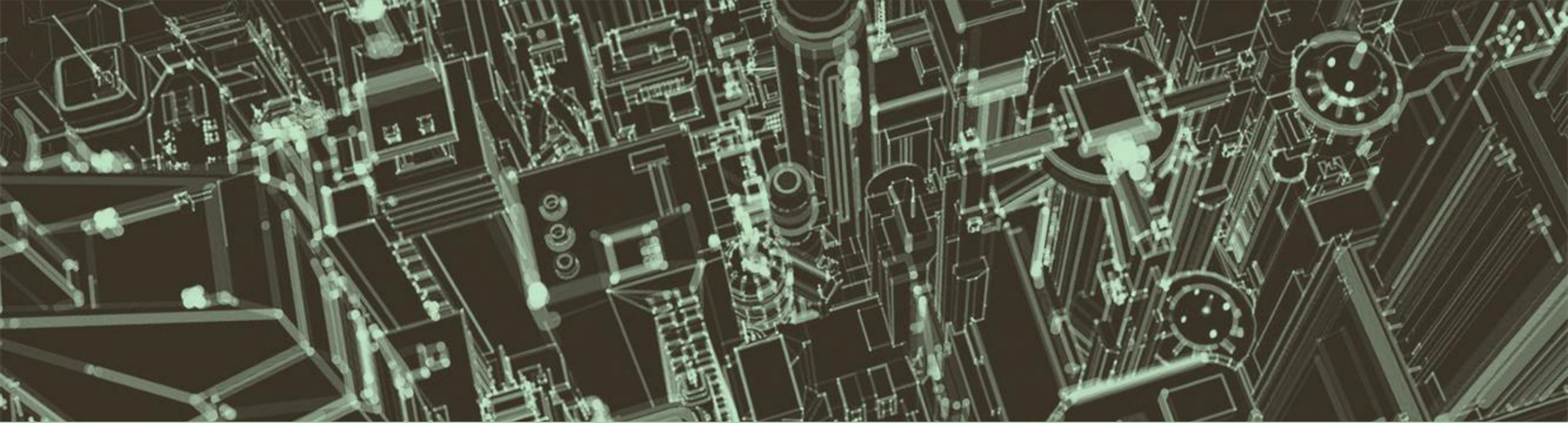
- Purpose of SD
- Proposed Site Location
- General Building Info
- Basic Building Layout
- Cost Estimate
- Construction Schedule
- Current Plan for SMHS PAC Building

Present for 3 Sites:

- 1) NHS Center for the Sciences
- 2) NHS PAC
- 3) SMHS STEM Building

Purpose of SD

- For each facility, determine:
 - ❖ Building size
 - ❖ Building shape
 - ❖ Building site location
- Ensure proposed building meets programmatic needs

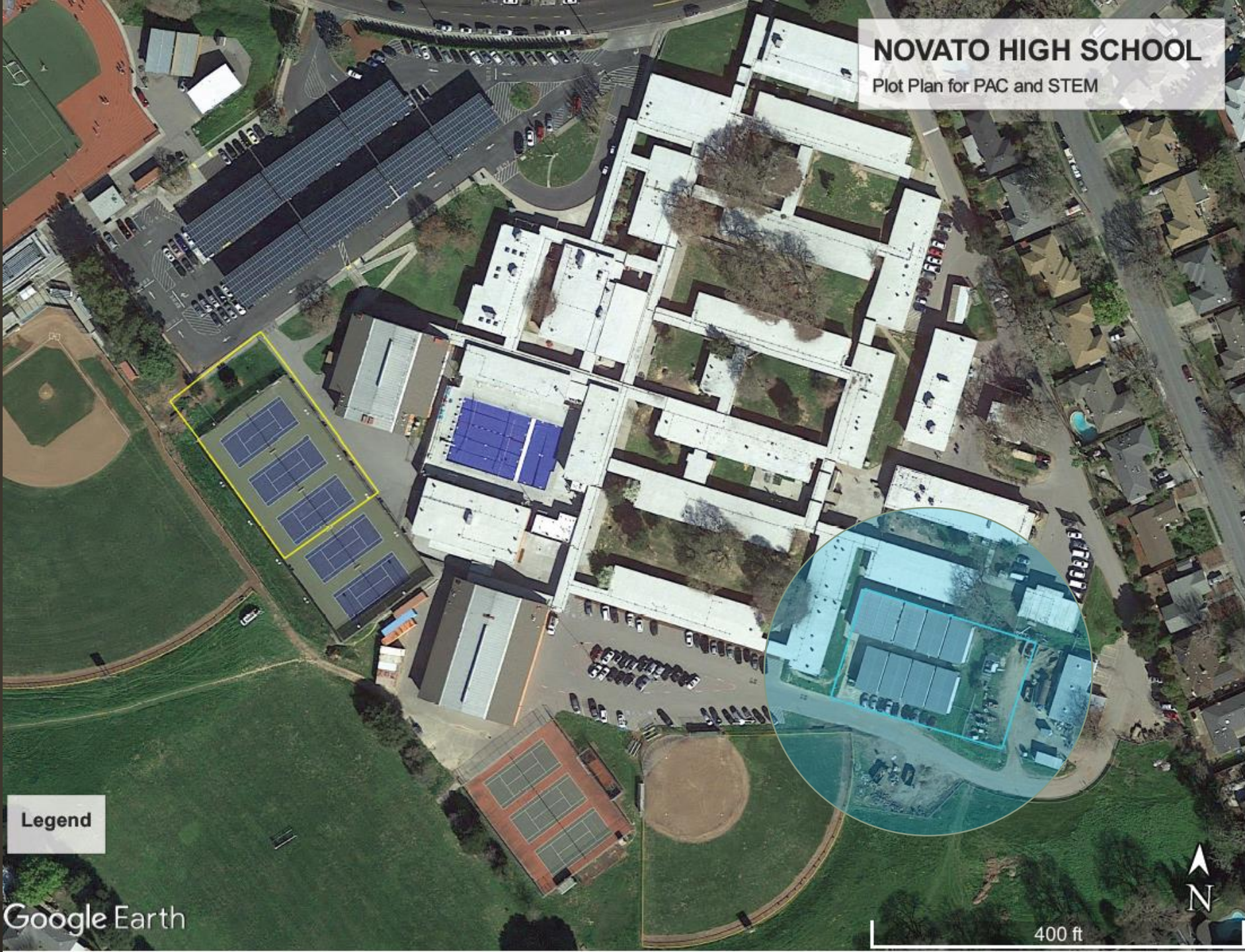


Novato High School Center for the Sciences



NOVATO HIGH SCHOOL

Plot Plan for PAC and STEM



Legend

Google Earth

400 ft

Novato HS Center for the Sciences

- 20,170 ft² (gross) building footprint
- 10 lecture-lab rooms total (vary 1,200 ft² to 1,300 ft²)
 - 4 rooms for General Science / Biology
 - 3 rooms for Chemistry
 - 3 rooms for Engineering / Physics
- Support spaces for staff prep & student demos
- Mechanical spaces, restrooms, storage & circulation



NOVATO HIGH SCHOOL - STEM BUILDING
625 ARTHUR ST, NOVATO, CA 94947
NOVATO UNIFIED SCHOOL DISTRICT

Job#: 1724100
04/17/2018

STEM BUILDING Schematic Site Plan







STEM BUILDING Exterior Views



STEM BUILDING Exterior Views



STEM BUILDING Exterior Views



STEM BUILDING Exterior Views



STEM BUILDING Exterior Views



STEM BUILDING Interior Views

Cost Estimate

Overall Project Cost

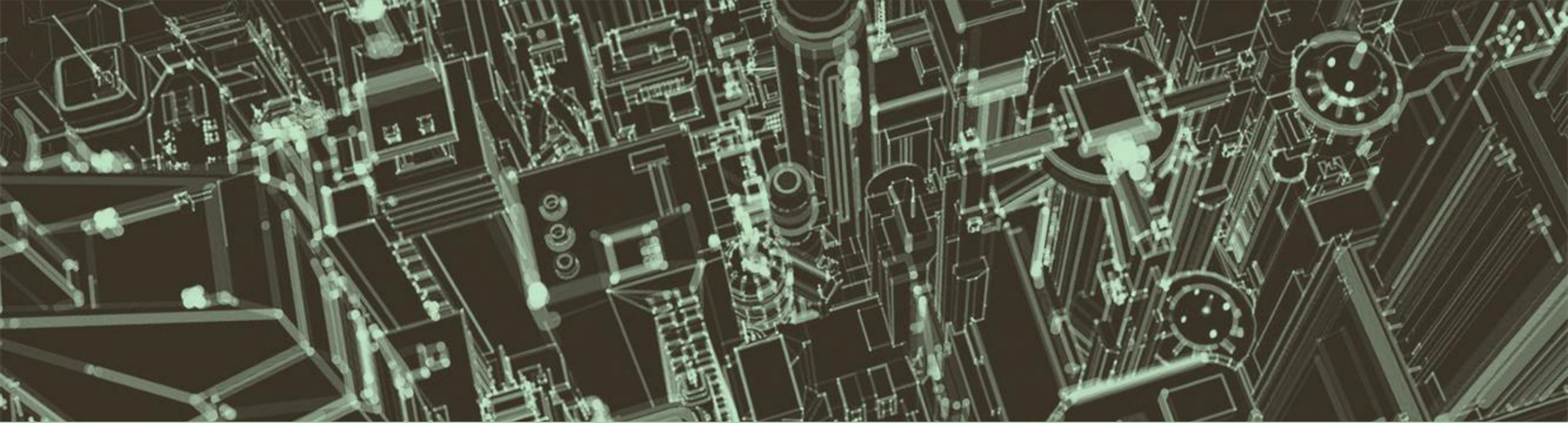
| Description | Quantity | | Unit Cost | Subtotal |
|---------------------------------|----------|------|-----------|--------------|
| Construction Budget | 1 | ls | | \$ 9,506,363 |
| Design Contingency | 10 | % | | \$ 950,636 |
| Construction Contingency | 10 | % | | \$ 950,636 |
| Architect Fees | 1 | ls | | \$ 657,882 |
| Architect Contingency | 1 | ls | | \$ 95,064 |
| Architect Reimbursable Expenses | 1 | ls | | \$ 32,894 |
| Misc. Consultants | 1 | ls | 50,000 | \$ 50,000 |
| Blueprinting | 1 | ls | | \$ 5,000 |
| Topographic Survey | 1 | ls | 10,000 | \$ 10,000 |
| Soils Report & Testing | 1 | % | | \$ 95,064 |
| CM Fees | 1 | ls | | \$ 562,818 |
| DSA Inspector | 13 | mos. | 14,800 | \$ 192,400 |
| Testing Laboratory | 1 | % | | \$ 95,064 |
| Bid Advertisements | 1 | ls | | \$ 5,000 |
| DSA Fees | 1.2 | % | | \$ 136,892 |
| CGS Fees | 1 | ls | 3,600 | \$ 3,600 |
| CEQA | 1 | ls | 5,000 | \$ 5,000 |
| FF&E | 1 | ls | 300,000 | \$ 300,000 |
| Utility Fees | 1 | ls | 25,000 | \$ 25,000 |
| Legal | 1 | ls | 10,000 | \$ 10,000 |
| Moving Expenses | 1 | ls | 10,000 | \$ 10,000 |
| Misc. Expenses | 1 | ls | 50,000 | \$ 50,000 |

Total Estimated Project Cost

\$ 13,749,312

NHS Stem Update 10.23.17

| ID | Task Mode | Task Name | Duration | Start | Finish | Predecessors | | | | |
|----|-----------|--------------------------|----------|--------------|--------------|--------------|------|------|------|------|
| | | | | | | | 2017 | 2018 | 2019 | 2020 |
| 1 | | Form Design Committee | 30 days | Mon 8/21/17 | Fri 9/29/17 | | | | | |
| 2 | | Program Meetings | 46 days | Mon 11/6/17 | Mon 1/8/18 | | | | | |
| 3 | | Schematic Design | 40 days | Tue 1/9/18 | Mon 3/5/18 | 2 | | | | |
| 4 | | Schematic Estimate | 10 days | Tue 3/6/18 | Mon 3/19/18 | 3 | | | | |
| 5 | | BOT Approval Schematic | 1 day | Tue 4/3/18 | Tue 4/3/18 | | | | | |
| 6 | | Soils Report | 40 days | Tue 3/6/18 | Mon 4/30/18 | 3 | | | | |
| 7 | | Design Development | 80 days | Tue 3/6/18 | Mon 6/25/18 | 3 | | | | |
| 8 | | CGS Review | 60 days | Tue 5/1/18 | Mon 7/23/18 | 6 | | | | |
| 9 | | Construction Documents | 60 days | Tue 6/26/18 | Mon 9/17/18 | 7 | | | | |
| 10 | | DSA Submittal | 3 days | Tue 9/18/18 | Thu 9/20/18 | 9 | | | | |
| 11 | | DSA Review | 100 days | Fri 9/21/18 | Thu 2/7/19 | 10 | | | | |
| 12 | | DSA Back Check | 5 days | Fri 2/8/19 | Thu 2/14/19 | 11 | | | | |
| 13 | | Scrub Drawings | 10 days | Fri 2/8/19 | Thu 2/21/19 | 11 | | | | |
| 14 | | Bid & Award | 33 days | Fri 2/22/19 | Tue 4/9/19 | 13 | | | | |
| 15 | | Bonds & Insurance | 10 days | Wed 4/10/19 | Tue 4/23/19 | 14 | | | | |
| 16 | | Legal Review | 5 days | Wed 4/24/19 | Tue 4/30/19 | 15 | | | | |
| 17 | | Notice to Proceed | 1 day | Wed 5/1/19 | Wed 5/1/19 | 16 | | | | |
| 18 | | Submittals & Procurement | 27 days | Thu 5/2/19 | Fri 6/7/19 | 17 | | | | |
| 19 | | Mobilization | 5 days | Mon 6/10/19 | Fri 6/14/19 | 18 | | | | |
| 20 | | Last Day of School | 1 day | Thu 6/13/19 | Thu 6/13/19 | | | | | |
| 21 | | Earthwork & Utilities | 30 days | Fri 6/14/19 | Thu 7/25/19 | 20 | | | | |
| 22 | | Foundations | 40 days | Fri 7/26/19 | Thu 9/19/19 | 21 | | | | |
| 23 | | Building Shell | 60 days | Fri 9/20/19 | Thu 12/12/19 | 22 | | | | |
| 24 | | Systems install | 80 days | Fri 12/13/19 | Thu 4/2/20 | 23 | | | | |
| 25 | | Finishes | 60 days | Fri 4/3/20 | Thu 6/25/20 | 24 | | | | |
| 26 | | Punch / Test /Sell | 30 days | Fri 6/26/20 | Thu 8/6/20 | 25 | | | | |
| 27 | | Occupancy | 11 days | Fri 7/31/20 | Fri 8/14/20 | 26SS+25 days | | | | |



Novato High School *Performing Arts Center (PAC)*



NOVATO HIGH SCHOOL

Plot Plan for PAC and STEM



Legend

Google Earth



400 ft

Novato HS Performing Arts Center

- 20,100 ft² (gross) building footprint
- 450-seat capacity in balcony setting
- Stage area
- Lobby, visual/digital arts gallery & restrooms
- Dressing rooms, green room & student restrooms
- Mechanical spaces, storage & circulation space

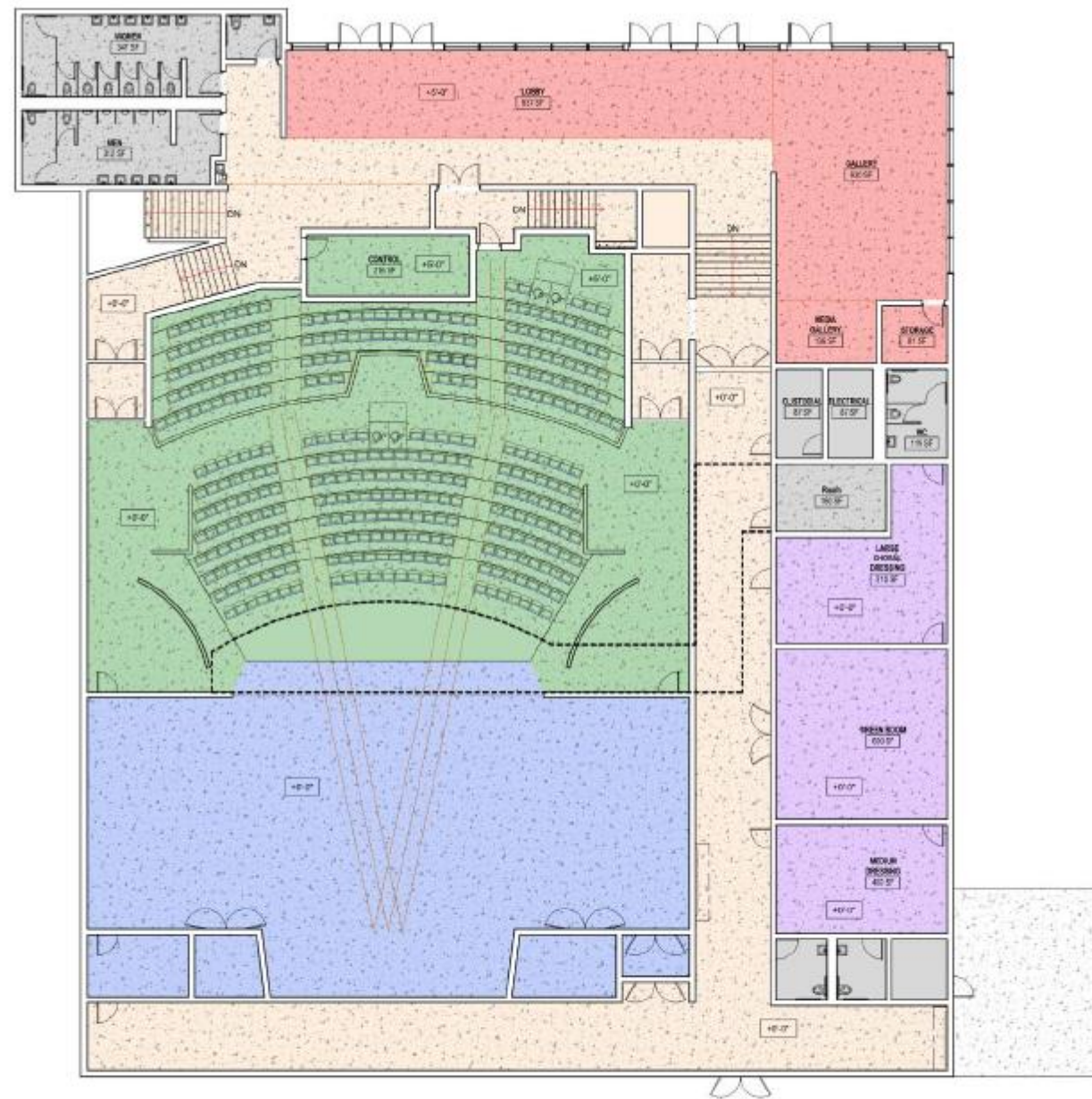
| BUILDING TOTALS: | |
|-----------------------------|----------|
| 1. GALLERY/LOBBY - | 1900sf |
| 2. PUBLIC RESTROOMS - | 670sf |
| 3. OTHER RESTROOMS - | 400sf |
| 4. SUPPORT SPACES - | 1980sf |
| (a) DRESSING ROOMS - | 910sf |
| (b) GREEN ROOM | 600sf |
| (c) CUSTODIAL - | 85sf |
| (d) ELECTRICAL - | 80sf |
| (e) RECEIVING/STAGING - | 225sf |
| (f) TOOL STORAGE - | 75sf |
| 5. THEATER SEATING AREA - | 6300sf |
| 6. STAGE AREA - | 4050sf |
| 7. CIRCULATION - | 3455sf |
| TOTAL BUILDING SF (gross) : | 20,100sf |



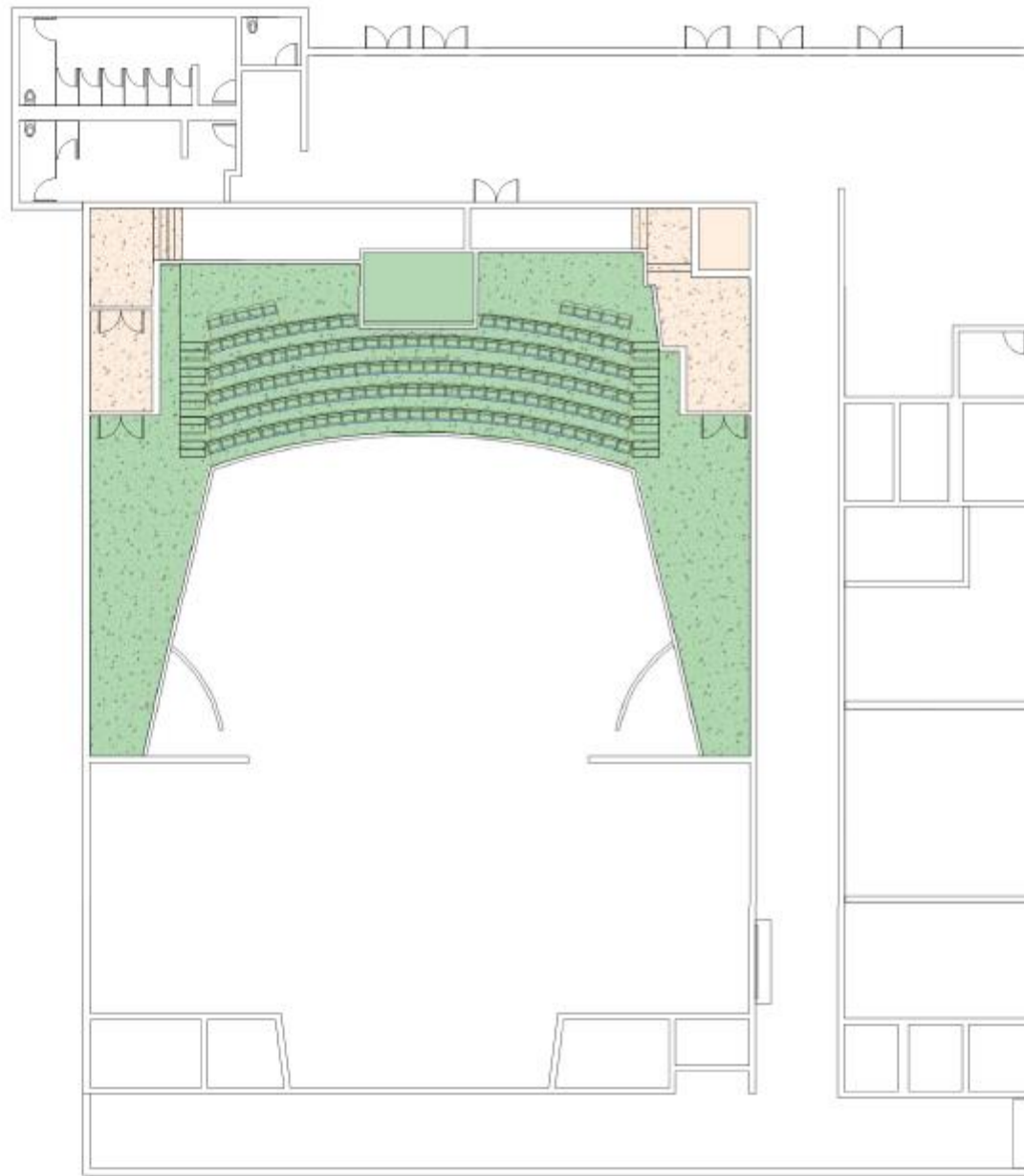
NOVATO HIGH SCHOOL - PROPOSED THEATER FLOOR PLAN
 625 ARTHUR ST, NOVATO, CA 94947
 NOVATO UNIFIED SCHOOL DISTRICT

ALC BUILDING Schematic Site Plan

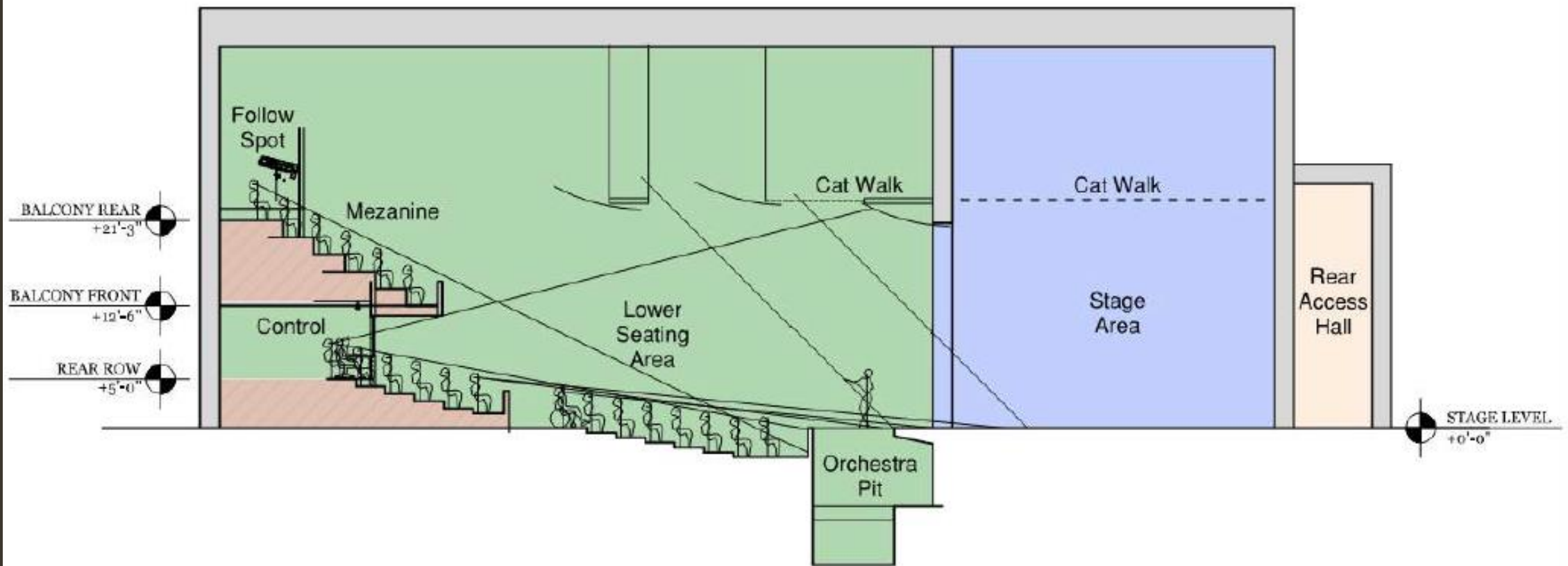




ALC BUILDING Schematic Floor Plan: Lower Levels



ALC BUILDING Schematic Floor Plan: Balcony Level



1a CENTERLINE SECTION, TRADITIONAL LAYOUT
 $1/16" = 1'-0"$

ALC BUILDING Schematic Section



ALC BUILDING Exterior Views



ALC BUILDING Exterior Views



ALC BUILDING Exterior Views



ALC BUILDING Exterior Views



ALC BUILDING Exterior Views

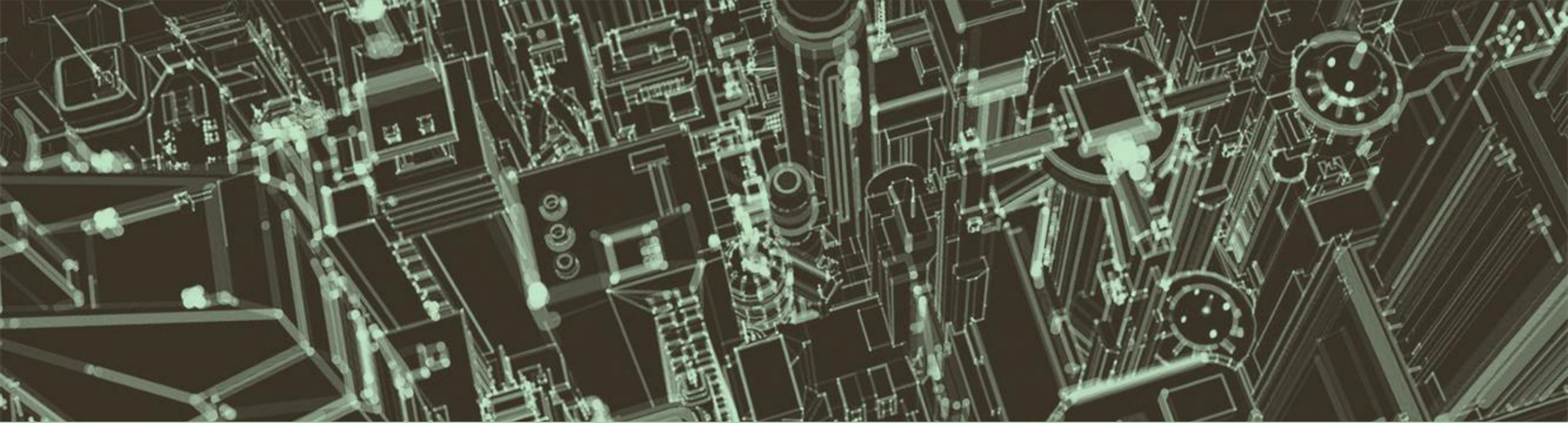
Cost Estimate

| <i>Description</i> | <i>Qty</i> | | <i>Unit Cost</i> | <i>Subtotal</i> |
|-------------------------------------|------------|------|------------------|------------------------|
| Construction Budget | 1 | ls | | \$18,070,512.54 |
| Design Contingency | 10 | % | | \$1,807,051.25 |
| Construction Contingency | 10 | % | | \$1,807,051.25 |
| Architect Fees | 1 | ls | | \$1,091,025.63 |
| Architect Contingency | 1 | ls | | \$180,705.13 |
| Architect Reimbursable Expenses | 1 | ls | | \$54,551.28 |
| Misc. Consultants | 1 | ls | \$350,000 | \$350,000.00 |
| Blueprinting | 1 | ls | | \$10,000.00 |
| Topographic Survey | 1 | ls | \$10,000 | \$10,000.00 |
| Soils Report & Testing | 1 | % | | \$180,705.13 |
| CM Fees | 1 | ls | | \$910,320.50 |
| DSA Inspector | 18 | mos. | \$14,800 | \$266,400.00 |
| Testing Laboratory | 1 | % | | \$180,705.13 |
| Bid Advertisements | 1 | ls | | \$5,000.00 |
| DSA Fees | 1 | % | | \$260,215.38 |
| CGS Fees | 1 | ls | \$3,600 | \$3,600.00 |
| CEQA | 1 | ls | \$10,000 | \$10,000.00 |
| FF&E | 1 | ls | \$500,000 | \$500,000.00 |
| Utility Fees | 1 | ls | \$25,000 | \$25,000.00 |
| Legal | 1 | ls | \$10,000 | \$10,000.00 |
| Moving Expenses | 1 | ls | \$10,000 | \$10,000.00 |
| Misc. Expenses | 1 | ls | \$100,000 | \$100,000.00 |
| Orchestra Pit | 1 | ls | \$781,209 | \$781,208.75 |
| Construct New Tennis Courts (5) | 1 | ls | \$350,000 | \$350,000.00 |
| Total Estimated Project Cost | | | | \$26,974,051.96 |

NHS PAC Update

10.23.17

| ID | Task Name | Duration | Start | Finish | Predecessors | | | | | |
|----|---------------------------|----------|--------------|--------------|--------------|------|------|------|------|------|
| | | | | | | 2017 | 2018 | 2019 | 2020 | 2021 |
| 1 | Form Design Committee | 40 days | Tue 8/8/17 | Mon 10/2/17 | | | | | | |
| 2 | Program Meetings | 81 days | Mon 10/30/17 | Mon 2/19/18 | | | | | | |
| 3 | Schematic Design | 100 days | Mon 11/27/17 | Fri 4/13/18 | 2SS+20 days | | | | | |
| 4 | Schematic Estimate | 5 days | Mon 4/16/18 | Fri 4/20/18 | 3 | | | | | |
| 5 | BOT Approval Schematic | 1 day | Tue 4/24/18 | Tue 4/24/18 | | | | | | |
| 6 | Soils Report | 40 days | Wed 4/25/18 | Tue 6/19/18 | 5 | | | | | |
| 7 | Design Development | 80 days | Wed 4/25/18 | Tue 8/14/18 | 5 | | | | | |
| 8 | CGS Review | 60 days | Wed 6/20/18 | Tue 9/11/18 | 6 | | | | | |
| 9 | Construction Documents | 60 days | Wed 8/15/18 | Tue 11/6/18 | 7 | | | | | |
| 10 | DSA Submittal | 1 day | Wed 11/7/18 | Wed 11/7/18 | 9 | | | | | |
| 11 | Lease-Lease Back Sequence | 40 days | Thu 12/13/18 | Wed 2/6/19 | | | | | | |
| 12 | DSA Review | 100 days | Thu 11/8/18 | Wed 3/27/19 | 10 | | | | | |
| 13 | DSA Back Check | 5 days | Thu 3/28/19 | Wed 4/3/19 | 12 | | | | | |
| 14 | Scrub Drawings | 10 days | Thu 3/28/19 | Wed 4/10/19 | 12 | | | | | |
| 15 | Bld GMP | 20 days | Thu 4/11/19 | Wed 5/8/19 | 14 | | | | | |
| 16 | Award GMP | 1 day | Tue 5/14/19 | Tue 5/14/19 | | | | | | |
| 17 | Mobilization | 5 days | Mon 6/10/19 | Fri 6/14/19 | 16 | | | | | |
| 18 | Earthwork & Utilities | 30 days | Mon 6/17/19 | Fri 7/26/19 | | | | | | |
| 19 | Foundations | 40 days | Mon 7/29/19 | Fri 9/20/19 | 18 | | | | | |
| 20 | Building Shell | 80 days | Mon 9/23/19 | Fri 1/10/20 | 19 | | | | | |
| 21 | Systems install | 100 days | Mon 1/13/20 | Fri 5/29/20 | 20 | | | | | |
| 22 | Finishes | 120 days | Mon 6/1/20 | Fri 11/13/20 | 21 | | | | | |
| 23 | Punch / Test /Sell | 30 days | Mon 11/16/20 | Fri 12/25/20 | 22 | | | | | |
| 24 | Occupancy | 5 days | Mon 12/28/20 | Fri 1/1/21 | 23 | | | | | |



San Marin High School **STEM Building**

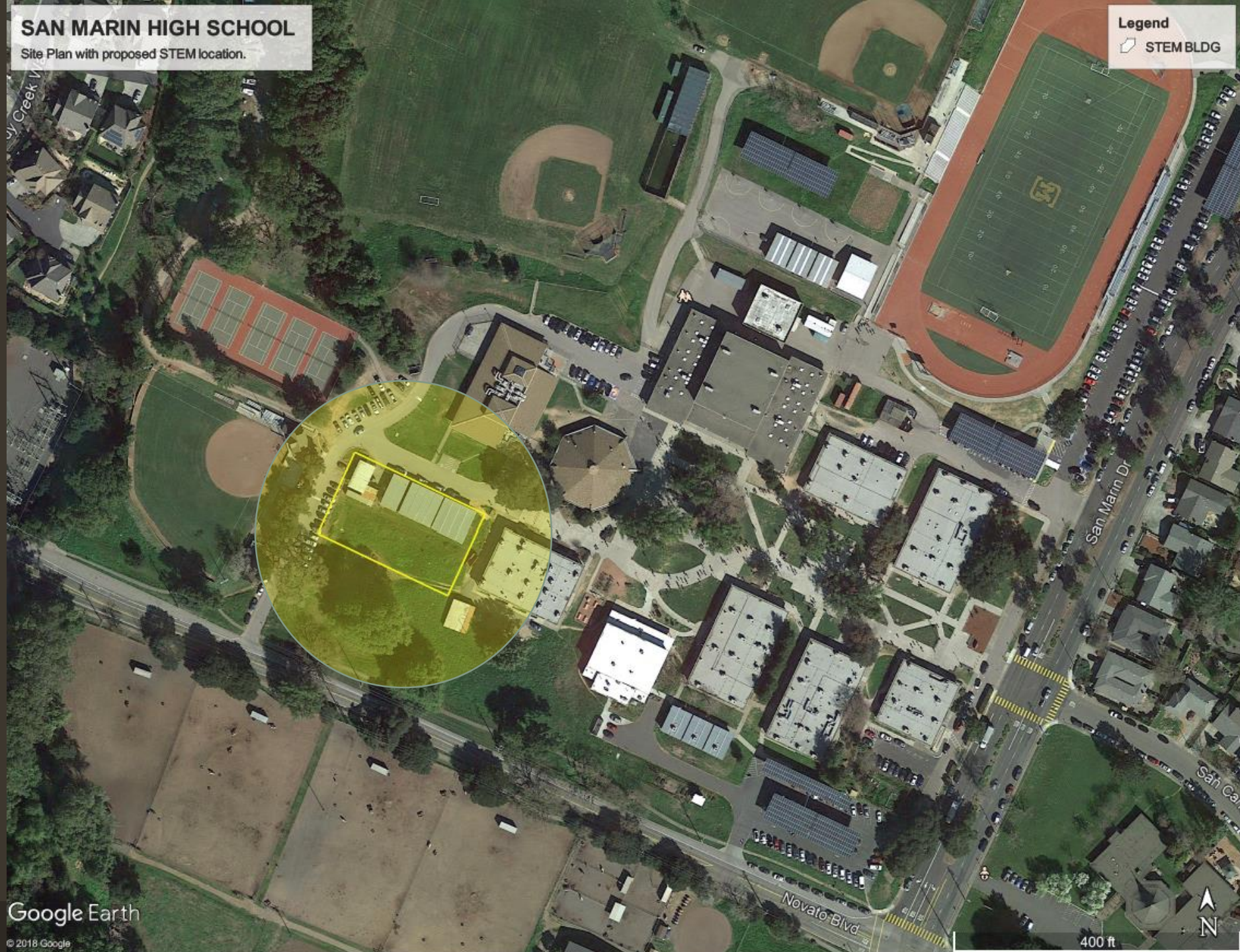


SAN MARIN HIGH SCHOOL

Site Plan with proposed STEM location.

Legend

STEM BLDG



Google Earth

© 2018 Google



400 ft

San Marin HS STEM Building

- 20,325 ft² (gross) building footprint
- 10 lecture-lab rooms total (vary 1,240 ft² to 1,412 ft²)
 - 4 rooms for Biology
 - 2 rooms for Chemistry
 - 2 rooms for Bio-Tech + specialized prep room
 - 2 rooms for Physics
- 2 student group study rooms
- Office
- Support spaces for staff prep & work area
- Mechanical spaces, storage & circulation



Project
Site



San Marin High School New STEM Building

Initial Concept Sketch



San Marin High School New STEM Building

Building Siting





San Marin High School
New STEM Building





San Marin High School
New STEM Building



QUATTROCCHI KWOK
ARCHITECTS



San Marin High School
New STEM Building





San Marin High School
New STEM Building



Cost Estimate



















































Project Cost

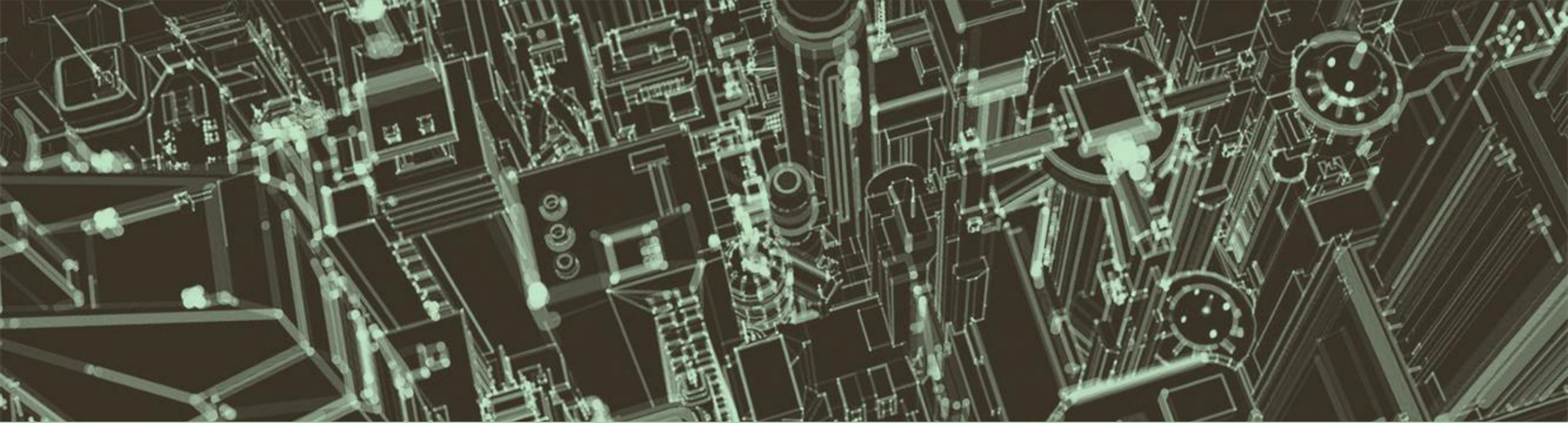
| Description | Quantity | Unit Cost | Subtotal |
|---------------------------------|----------|------------|--------------|
| Construction Budget | 1 ls | | \$ 9,559,569 |
| Design Contingency | 10 % | | \$ 955,957 |
| Construction Contingency | 10 % | | \$ 955,957 |
| Architect Fees | 1 ls | | \$ 665,478 |
| Architect Contingency | 1 ls | | \$ 95,596 |
| Architect Reimbursable Expenses | 1 ls | | \$ 33,274 |
| Misc Consultants | 1 ls | \$ 50,000 | \$ 50,000 |
| Blueprinting | 1 ls | | \$ 10,000 |
| Topographic Survey | 1 ls | \$ 10,000 | \$ 10,000 |
| Soils Report & Testing | 1 % | | \$ 95,596 |
| CM Fees | 1 ls | | \$ 569,883 |
| DSA Inspector | 13 mos. | \$ 14,800 | \$ 192,400 |
| Testing Laboratory | 1 % | | \$ 95,596 |
| Bid Advertisements | 1 ls | | \$ 5,000 |
| DSA Fees | 0.09 % | | \$ 103,243 |
| CGS Fees | 1 ls | \$ 3,600 | \$ 3,600 |
| CEQA | 1 ls | \$ 10,000 | \$ 10,000 |
| FF&E | 1 ls | \$ 300,000 | \$ 300,000 |
| Utility Fees | 1 ls | \$ 25,000 | \$ 25,000 |
| Legal | 1 ls | \$ 10,000 | \$ 10,000 |
| Moving Expenses | 1 ls | \$ 10,000 | \$ 10,000 |
| Misc. Expenses | 1 ls | \$ 50,000 | \$ 50,000 |

Total Estimated Project Cost \$ 13,806,149

SMHS Stem Update

4.20.18

| ID | Task Mode | Task Name | Duration | Start | Finish | | | | |
|----|---|------------------------|----------|--------------|--------------|------|---|------|------|
| | | | | | | 2017 | 2018 | 2019 | 2020 |
| 1 |  | Form Design Committee | 30 days | Mon 8/21/17 | Fri 9/29/17 | |  | | |
| 2 |  | Program Meetings | 46 days | Mon 10/2/17 | Mon 12/4/17 | |  | | |
| 3 |  | Schematic Design | 95 days | Tue 12/5/17 | Mon 4/16/18 | |  | | |
| 4 |  | Schematic Estimate | 6 days | Tue 4/17/18 | Tue 4/24/18 | |  | | |
| 5 |  | BOT Approval Schematic | 1 day | Tue 5/8/18 | Tue 5/8/18 | |  | | |
| 6 |  | Soils Report | 40 days | Wed 5/9/18 | Tue 7/3/18 | |  | | |
| 7 |  | Design Development | 80 days | Wed 5/9/18 | Tue 8/28/18 | |  | | |
| 8 |  | CGS Review | 60 days | Wed 7/4/18 | Tue 9/25/18 | |  | | |
| 9 |  | Construction Documents | 60 days | Wed 8/29/18 | Tue 11/20/18 | |  | | |
| 10 |  | DSA Submittal | 3 days | Wed 11/21/18 | Fri 11/23/18 | |  | | |
| 11 |  | DSA Review | 80 days | Mon 11/26/18 | Fri 3/15/19 | |  | | |
| 12 |  | DSA Back Check | 5 days | Mon 3/18/19 | Fri 3/22/19 | |  | | |
| 13 |  | Bid & Award | 42 days | Mon 3/25/19 | Tue 5/21/19 | |  | | |
| 14 |  | Bonds & Insurance | 5 days | Wed 5/22/19 | Tue 5/28/19 | |  | | |
| 15 |  | Legal Review | 2 days | Wed 5/29/19 | Thu 5/30/19 | |  | | |
| 16 |  | Notice to Proceed | 1 day | Fri 5/31/19 | Fri 5/31/19 | |  | | |
| 17 |  | Mobilization | 5 days | Mon 6/10/19 | Fri 6/14/19 | |  | | |
| 18 |  | Last Day of School | 1 day | Thu 6/13/19 | Thu 6/13/19 | |  | | |
| 19 |  | Earthwork & Utilities | 30 days | Fri 6/14/19 | Thu 7/25/19 | |  | | |
| 20 |  | Foundations | 40 days | Fri 7/26/19 | Thu 9/19/19 | |  | | |
| 21 |  | Building Shell | 60 days | Fri 9/20/19 | Thu 12/12/19 | |  | | |
| 22 |  | Systems install | 80 days | Fri 12/13/19 | Thu 4/2/20 | |  | | |
| 23 |  | Finishes | 60 days | Fri 4/3/20 | Thu 6/25/20 | |  | | |
| 24 |  | Punch / Test / Sell | 30 days | Fri 6/26/20 | Thu 8/6/20 | |  | | |
| 25 |  | Occupancy | 11 days | Fri 7/31/20 | Fri 8/14/20 | |  | | |

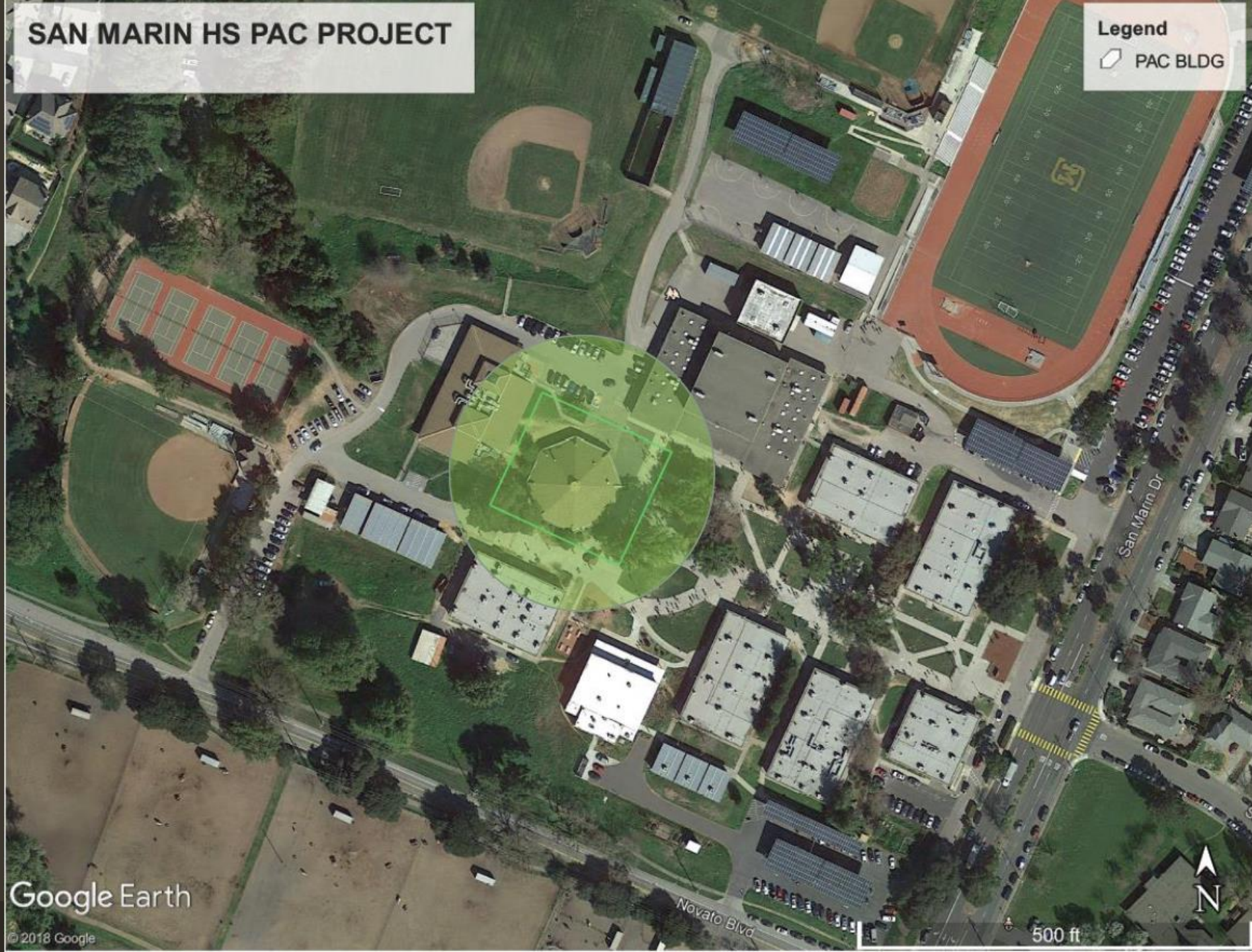


San Marin High School Performing Arts Center (PAC)



SAN MARIN HS PAC PROJECT

Legend
PAC BLDG



Google Earth

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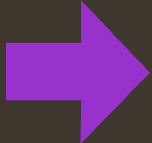


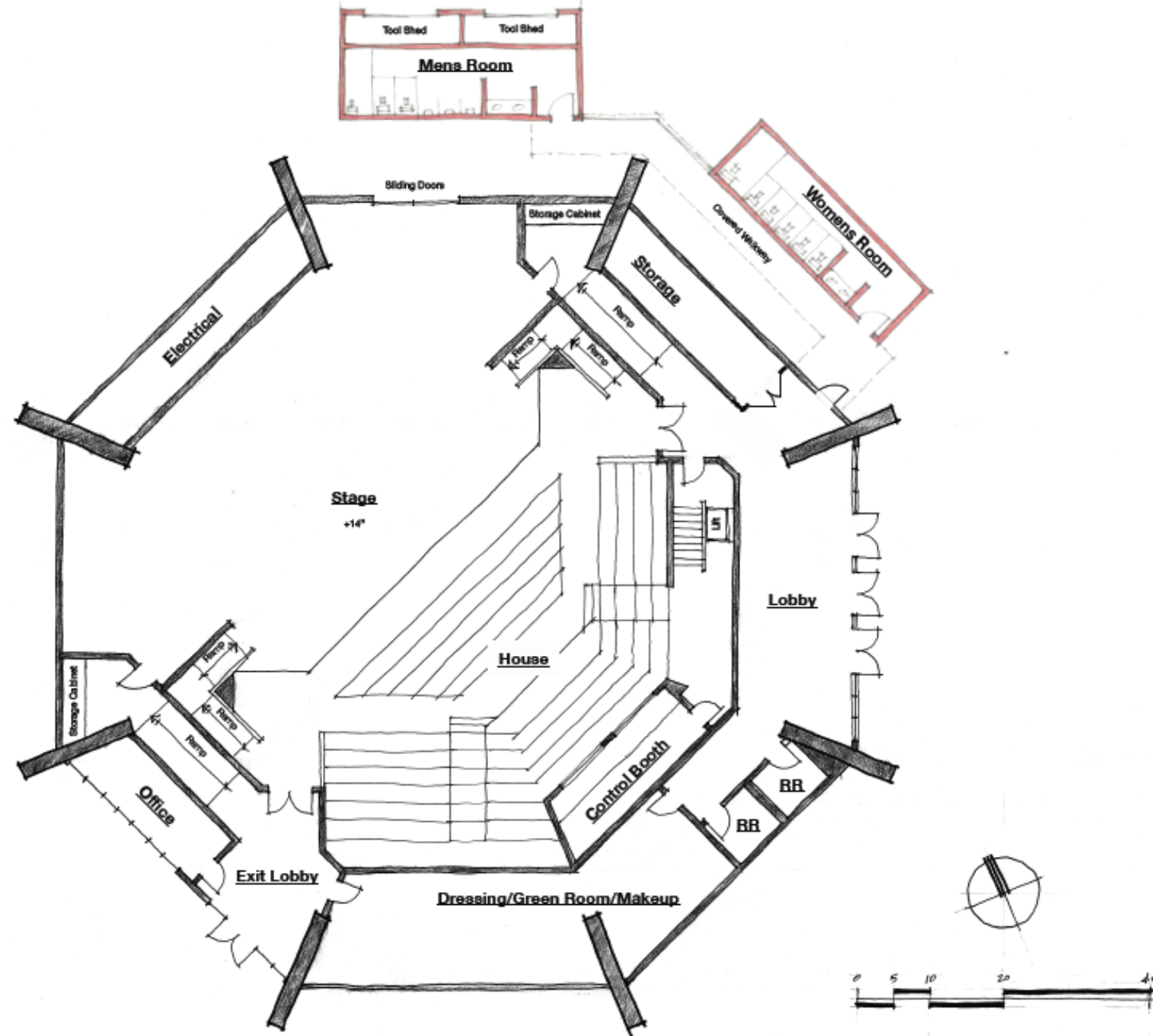
500 ft

Renovation Restrictions

- Original construction ~ octagon-shaped cafeteria
- Low perimeter ceilings, high center dome
- Pre-tension structure
 - Inability to modify floor/foundation
 - Inability to add loads to existing structural members
- DSA structural wall rule – triggers seismic upgrades
- Existing building is 40+ year old (service life)


Renovation Option 1

- 250-seat capacity
- Stage area & control booth
- Dressing rooms, green room & make-up area
- Lobby, exit lobby & office
- Audience restrooms & student restrooms
- Mechanical spaces, storage & circulation space
- **Expanded ft²**  estimated cost of **\$8.1 million**




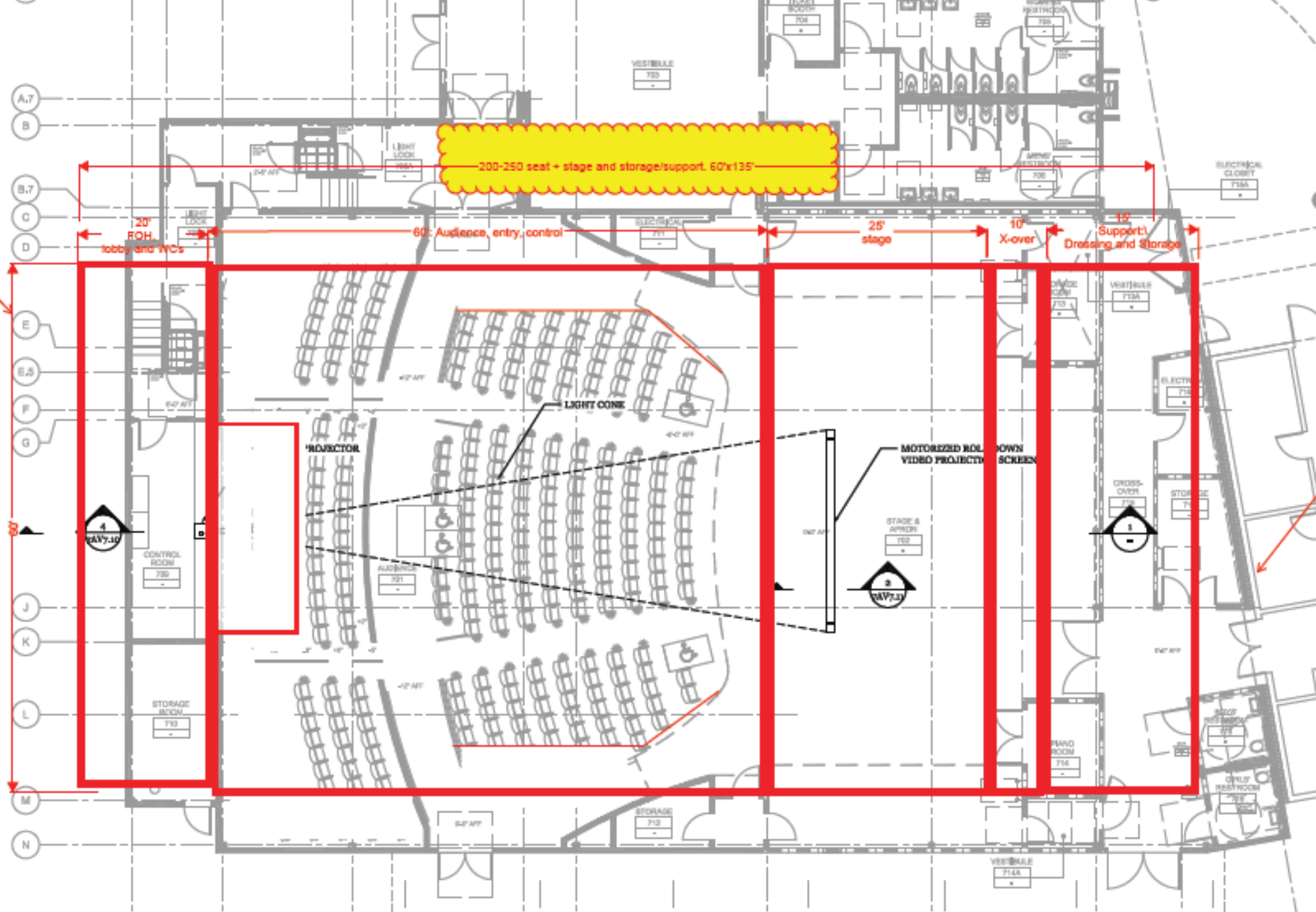
SMHS PAC - Option 1

Renovation Option 2

- 250-seat capacity
- Reduced stage area & control booth
- Smaller dressing rooms, green room & make-up area
- Lobby, exit lobby & office
- No audience or student restrooms
- Mechanical spaces, less storage & circulation space
- **Same ft²**  estimated cost of **\$6.5 million**

New Construction Option

- 200 to 250-seat capacity stadium seating
- Provides all program needs in theater building
- New construction (50-year service life)
- No renovation  no construction restrictions
- Options for building shape & orientation
- **\$7.25 million** cost estimate





Board Approval

- Develop “**Build New**” option:
 - Cost falls between renovation options
 $\$6.5\text{M} > \$7.25\text{M} > \$8.1\text{M}$
 - New construction vs. renovation to 40-year old facility
 - Constructs true Performing Arts Center facility (not a modified cafeteria)
 - Fits within existing footprint on San Marin campus

Questions?