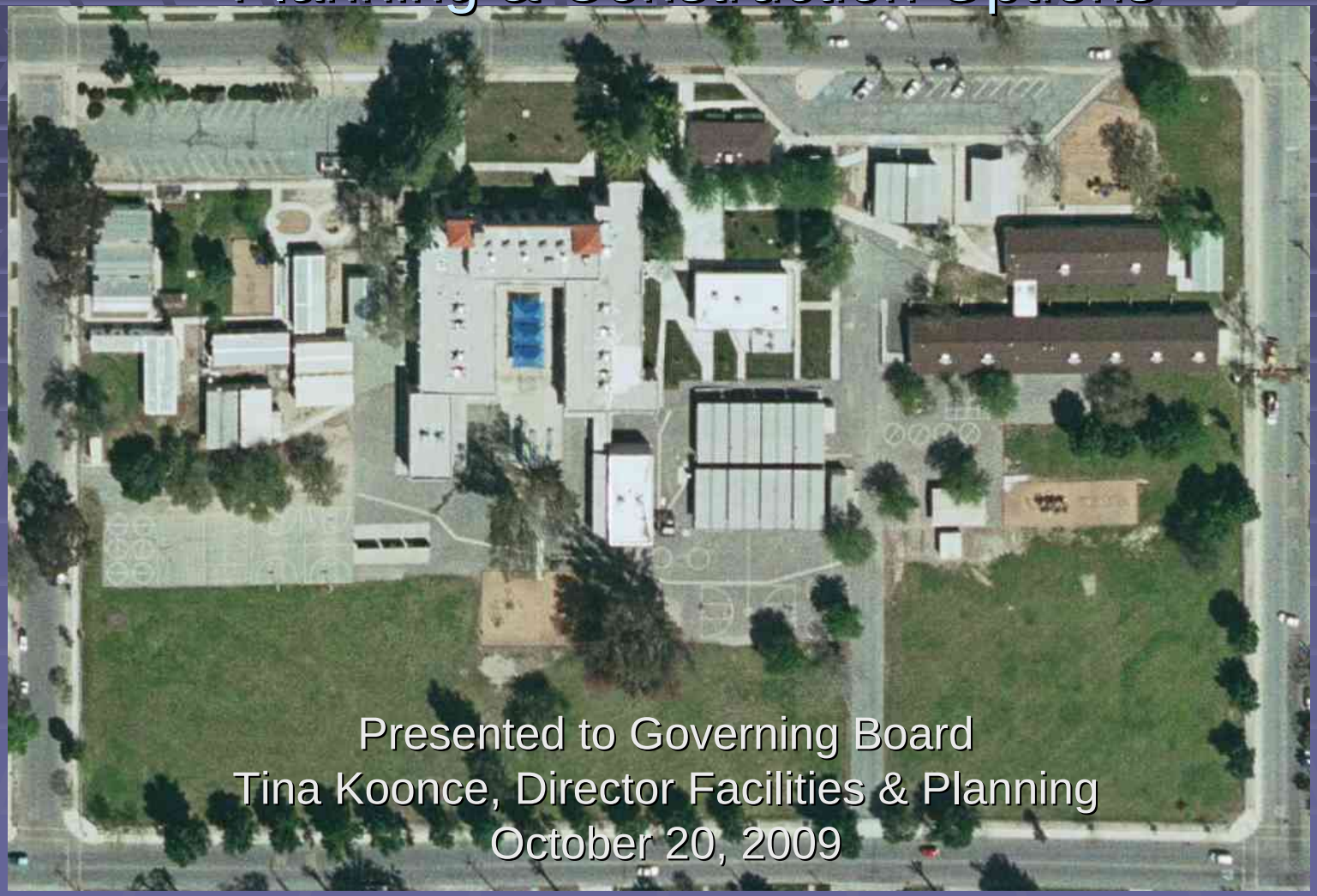
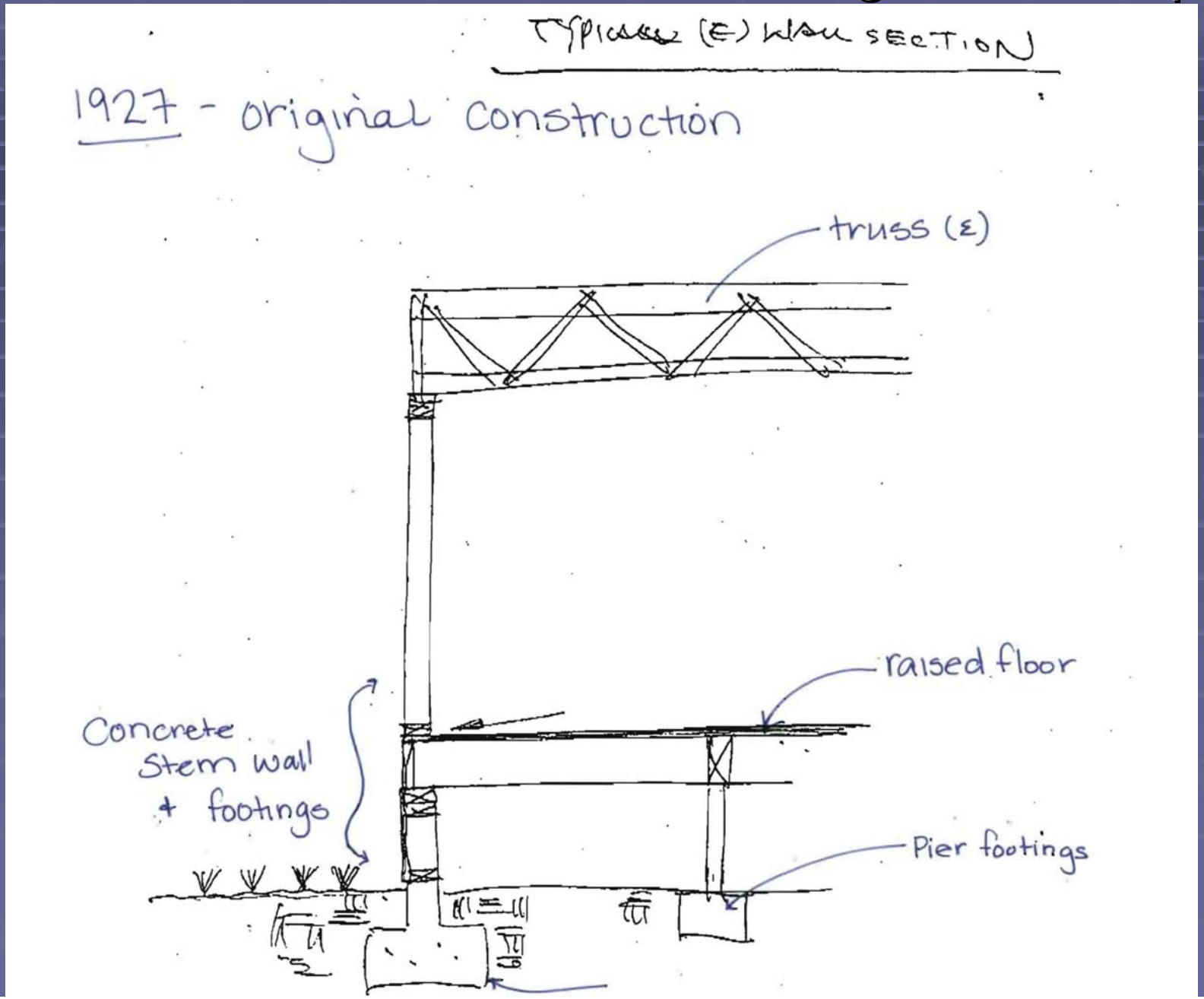
Hemet Elementary

Planning & Construction Options



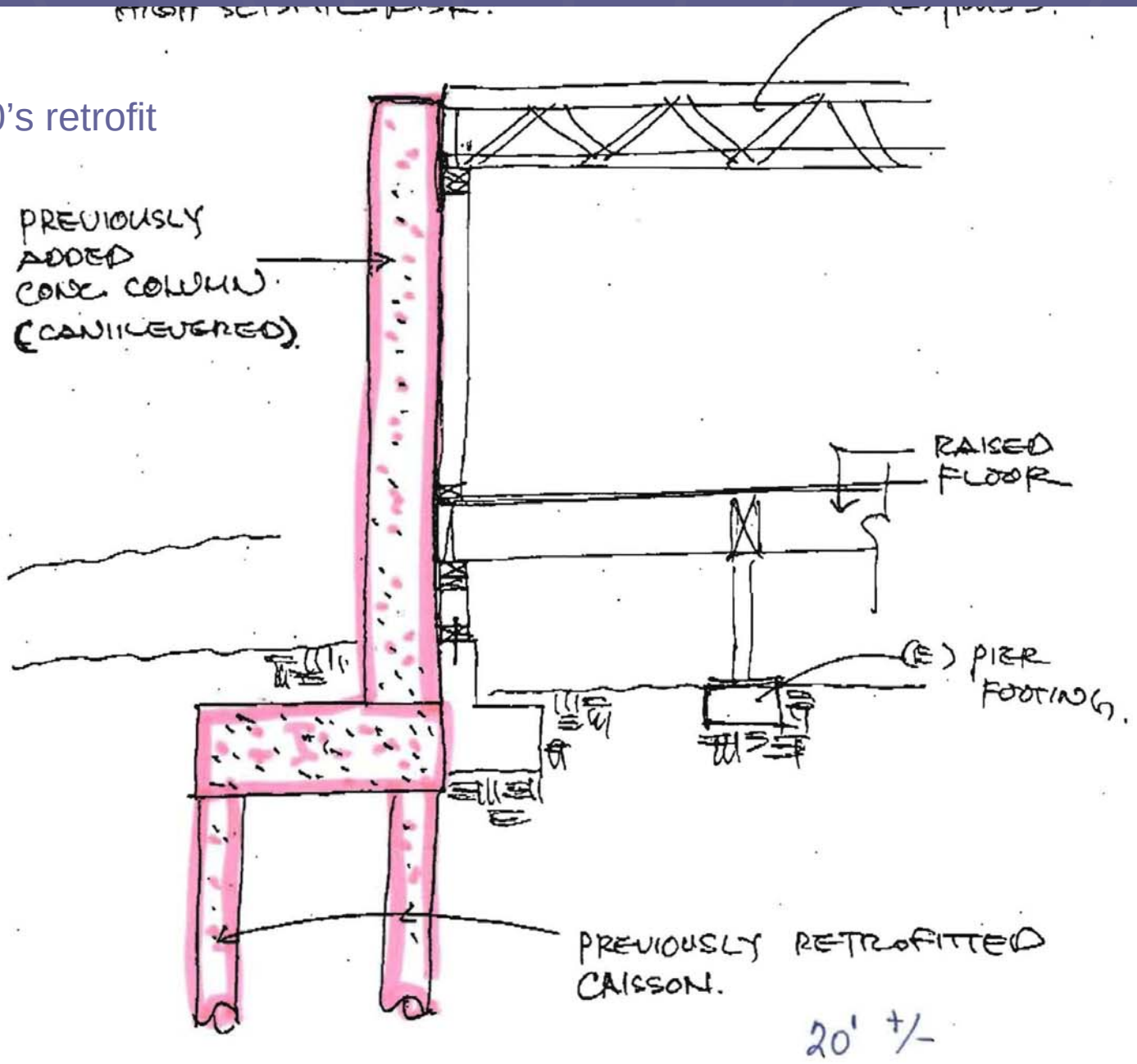
Presented to Governing Board
Tina Koonce, Director Facilities & Planning
October 20, 2009

Current Conditions of Building and Campus



Current Conditions of Building and Campus

1940's retrofit

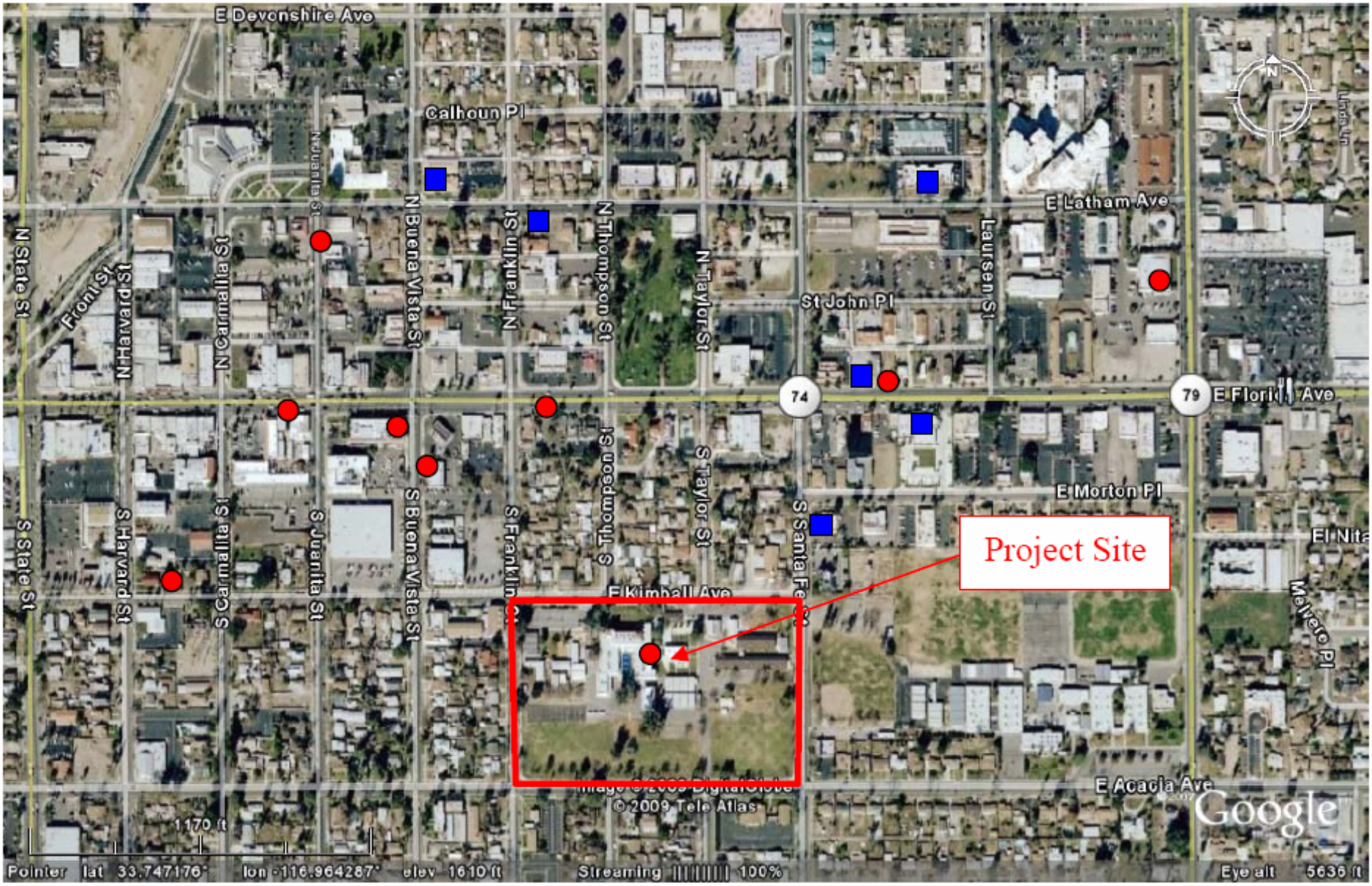


Current Conditions of Building and Campus

- Two Main Issues
  - **Geotechnical** - Localized saturation of the subsoil and dissipation of excess moisture near east wing of main building
  - **Structural** - The raised floor system and structural diaphragm of the building lack the shear force carrying capacity to withstand seismic activity.

Existing Geotechnical deficiencies:

- Five exploratory borings were drilled near east wing of bldg and revealed soil moisture content as “moist to very moist”.
- Water was encountered at 45 feet on east side of building
- East building landscaping area drains toward the building
- Several parcels in general area have seen structure settlement or have the potential for soil collapse



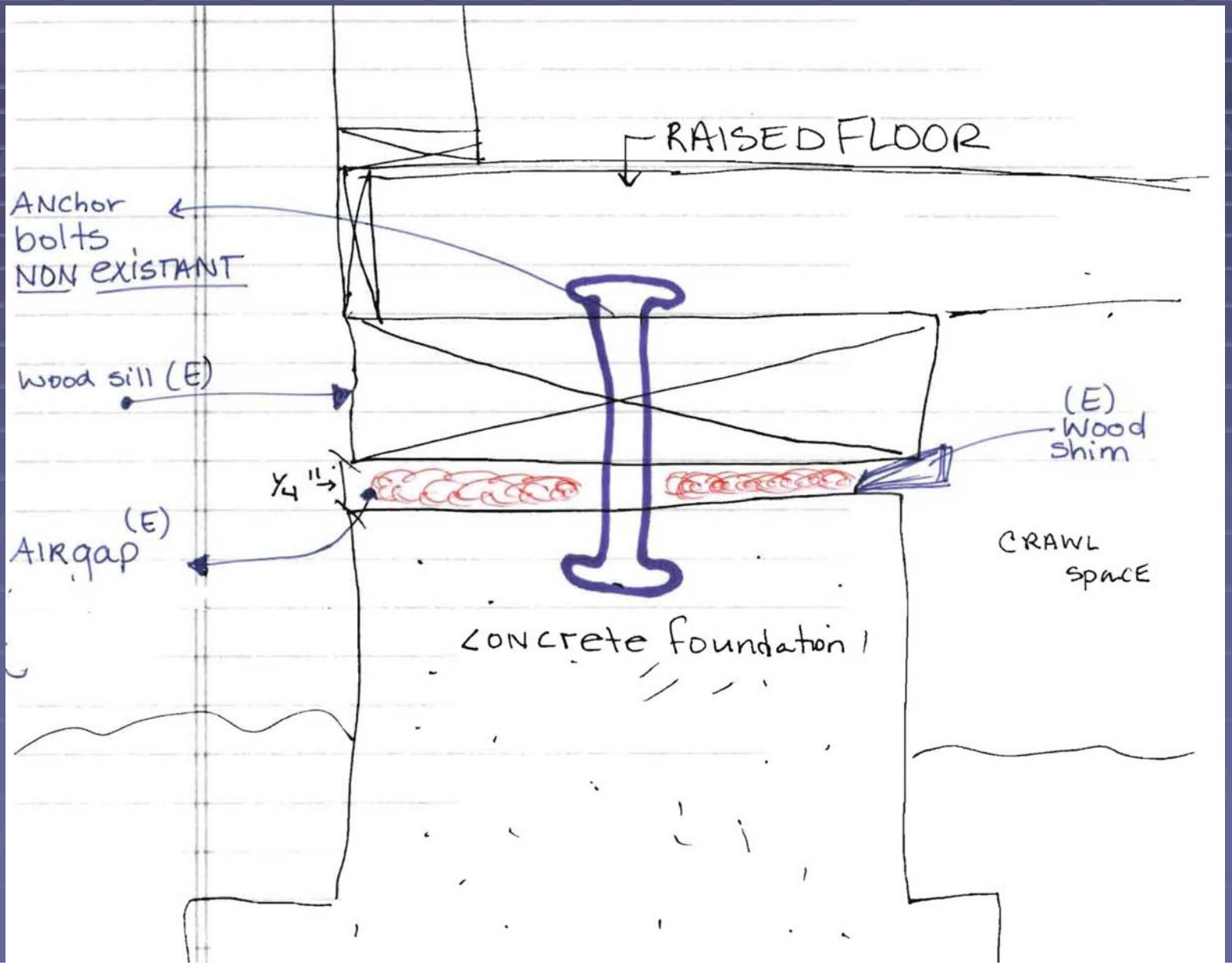
● -Indicates sites where settlements have occurred beneath existing structures

■ - Indicates sites where exploration and testing have revealed a potential for saturation collapse

Existing Structural Deficiencies

- Diaphragm of the building and the drag struts & bracing that transfer the lateral load to the shear walls does not meet existing code compliance
- Cripple Wall of bldg has no shear force transfer mechanism
- Wood sills lack anchor bolts
- No positive connections between girder and columns
- In other words, to withstand any type of ground movement, the load path or chain (foundation to roof) must be continuous and complete. This building does not meet that criterion.

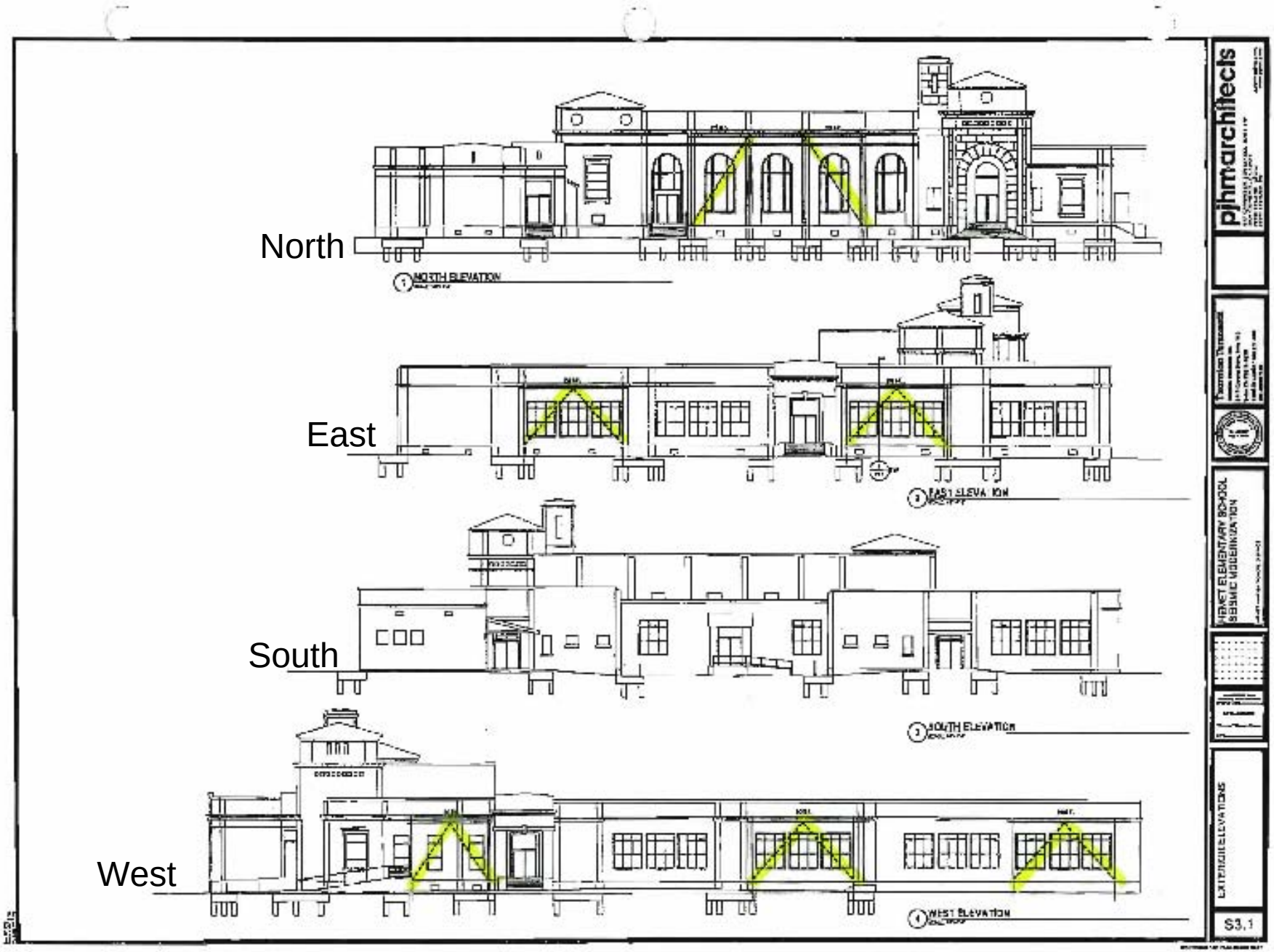
Existing Structural Deficiencies



Option 1
Retrofit Existing Building

- Geotechnical
  - Compaction grouting 7 feet from building, depth to be determined
  - Pressure grout under foundation, depth to be determined
- Structural
  - Install new interior and/or exterior braced frame structural system consisting of new exposed steel braced frames and shear walls.
  - Interior spaces would be rebuilt to comply with current fire codes and accessible access.
    - Campus would lose restroom fixture count in redesign
    - MDF, phone Room, mechanical and custodial rooms would remain in basement
  - Remaining campus would be untouched
- Cost Estimate $11,254,754…..$428 sq ft

The likelihood of future structural movement still exist, would need to continue to monitor the soils and building for future deficiencies


North
East
South
West
NORTH ELEVATION
EAST ELEVATION
SOUTH ELEVATION
WEST ELEVATION
pjhmarchitects
S3.1

Option 2
Replace Existing Building

- Geotechnical
  - Demolish existing building footprint
  - Use stone columns or concrete caissons under foundation to mitigate soil deficiencies
- Structural
  - Rebuild exact footprint to new Fire Life Safety, structural and access compliant codes
  - Raised floor would be eliminated, install concrete slab foundation
  - Limited ability to redesign footprint due to surrounding campus structures
  - Interior redesign would result in smaller classrooms to accommodate additional space needed for MDF, phone, mechanical and custodial rooms (basement would be eliminated).
  - Potential to reuse some components of building (Wood floors, windows)
  - Costs does not address aging sewer, plumbing, electrical infrastructure beyond 5 feet of building.
  - Cost estimate $10,826,865……$412 sq ft

Option 3
Hybrid Repair/Replace Existing Building

- North wing of building (MPR/kitchen) would remain intact and receive similar repair to the foundation as discussed in Option 1.
- Complete demolition of East and West Wings and similar replacement as discussed in Option Two.
- Least desirable based on the complexity of merging two types of construction and the connection between existing building and new construction could have unforeseeable issues.
- Similar to Option 1, existing building would be monitored for continued soil and structural deficiencies
- Cost estimate $11,801,066…$449 sq ft

Option 4
Master Planning of Entire Campus

- Conduct comprehensive geotechnical study to profile subsurface conditions of entire campus
  - Will allow for a more detailed cost and procedural discussion for soil overexcavation/removal depths and foundation design
  - Report will allow for complete understanding of viability of construction on the site.
- Allow Facilities Committee and staff to create long range goals for the campus through a Systematic Approach
  - Identify and analyze the needs of the campus from geotechnical and structural needs to the overall master plan of the campus
  - Through the guidance of the Governing Board, develop a Master Plan of the campus that takes into consideration the historical and cultural significance of the buildings architecture as well as current building and access compliance codes required for new construction. Develop a budget that will address the entire campus needs

What does that mean for current Hemet El staff and students?

- Through excess capacity we are able to absorb 2009 students at surrounding schools.
- Hemet El annex (Dartmouth Ave) is functioning and can remain in existence until construction is complete
- Additional capacity at Ramona and Whittier available with addition of relocatables as needed

Questions