

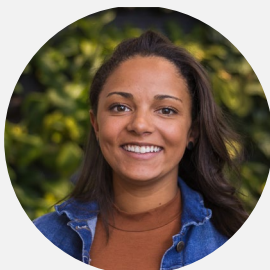


Bellevue Service Center Building 2 & 3 Basis of Design Report

AGENDA

- 01 – Introduction
- 02 – Who we are
- 03 – How we Collaborate
- 04 – Goals & Integration
- 05 – Tasks & Schedule
- 06 – Progress-to-date
- 07 – Next steps

BASIS OF DESIGNTTEAM



Joe Lear, AIA

PRINCIPAL-IN-CHARGE

Drives the project vision, strategy and success, from start to finish

Lupe Cantu, AIA

PROJECT MANAGER

Coordinates people and drives progress for a flawless delivery

Olivia Moore, AIA

PROJECT ARCHITECT

Leads detailed design and documentation to turn ideas into reality

Harry King

CIVIL / MEP / BUILDING ENVELOPE / STRUCTURAL / SUSTAINABILITY

Integrates systems and performance to deliver an efficient building

Lucas Stover

COST ESTIMATOR LEAD

Turns design into dollars, delivering accurate budgets and financial clarity

Davis Firm Overview

ROLE

Architecture, Interior Design, FF&E, Signage / Way-finding, and Cost Estimate Validation.

57 **Years in Business**

750 **M in Construction Cost Completed Annually**

91% **Repeat Clients**

7 **Integrated Services**

- Programming
- Master Planning
- Architecture
- Landscape Architecture
- Interior Design
- Lighting Design
- Signage + Experiential Design

145 **Professional Staff**

50+ **LEED Projects**

250+ **Education Projects**



SSR Firm Overview

- 57 Years in Business
- 18 Offices
- 600+ Employee-Owners
- 100% Employee-Owned
- 10 Integrated Services
 - MEP Engineering
 - Structural Engineering
 - Civil Engineering
 - Technology
 - Equipment Planning
 - New Building Commissioning
 - Building Enclosure
 - Building Optimization and Sustainability
 - Transportation
 - Industrial
- Top 24 Engineering Firms in U.S. (*Building Design + Construction*)

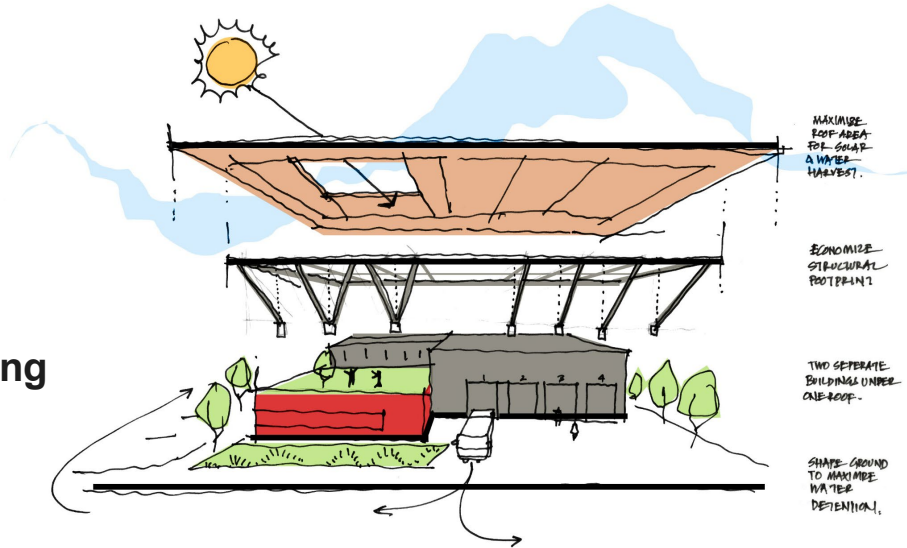
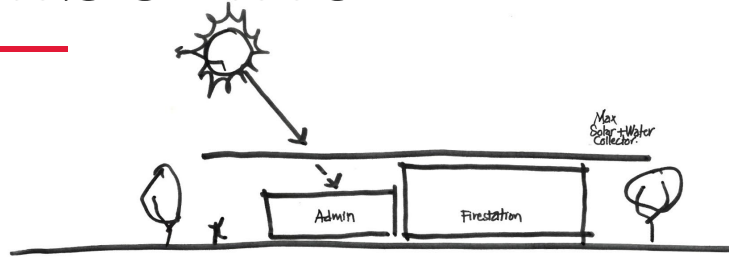
Cumming Group Firm Overview

- 29 Years in Business
 - #1 Pure Play Firm in the U.S.
 - #8 ENR 100 PM/CM Firms
 - 3,000+ Team Members Worldwide
 - 40+ Team Members in Colorado
 - 270+ Cost Team Members in the U.S.
-

BASIS OF DESIGN Collaboration

How We Collaborate

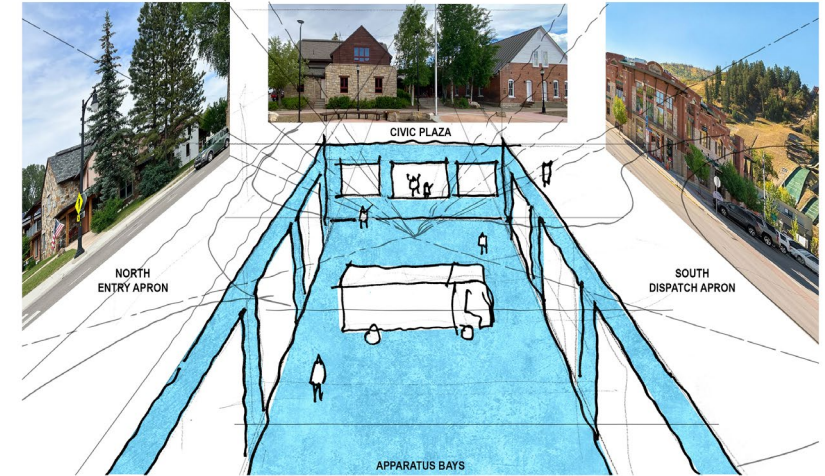
- Integrated weekly technical coordination
- Shared digital workspace for drawings, notes and cost tracking
- 3D modeling and clash detection software to reduce conflict in design
- Rigorous Decision Logging



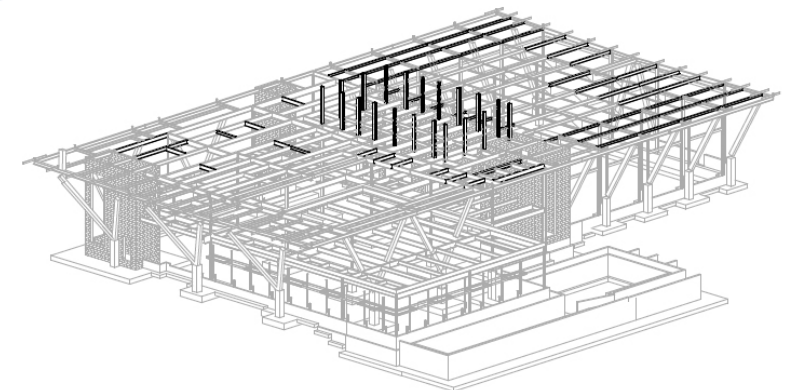
NORTH VANTAGE
RESIDENTIAL NEIGHBORHOOD

EAST VANTAGE
HISTORIC CITY HALL

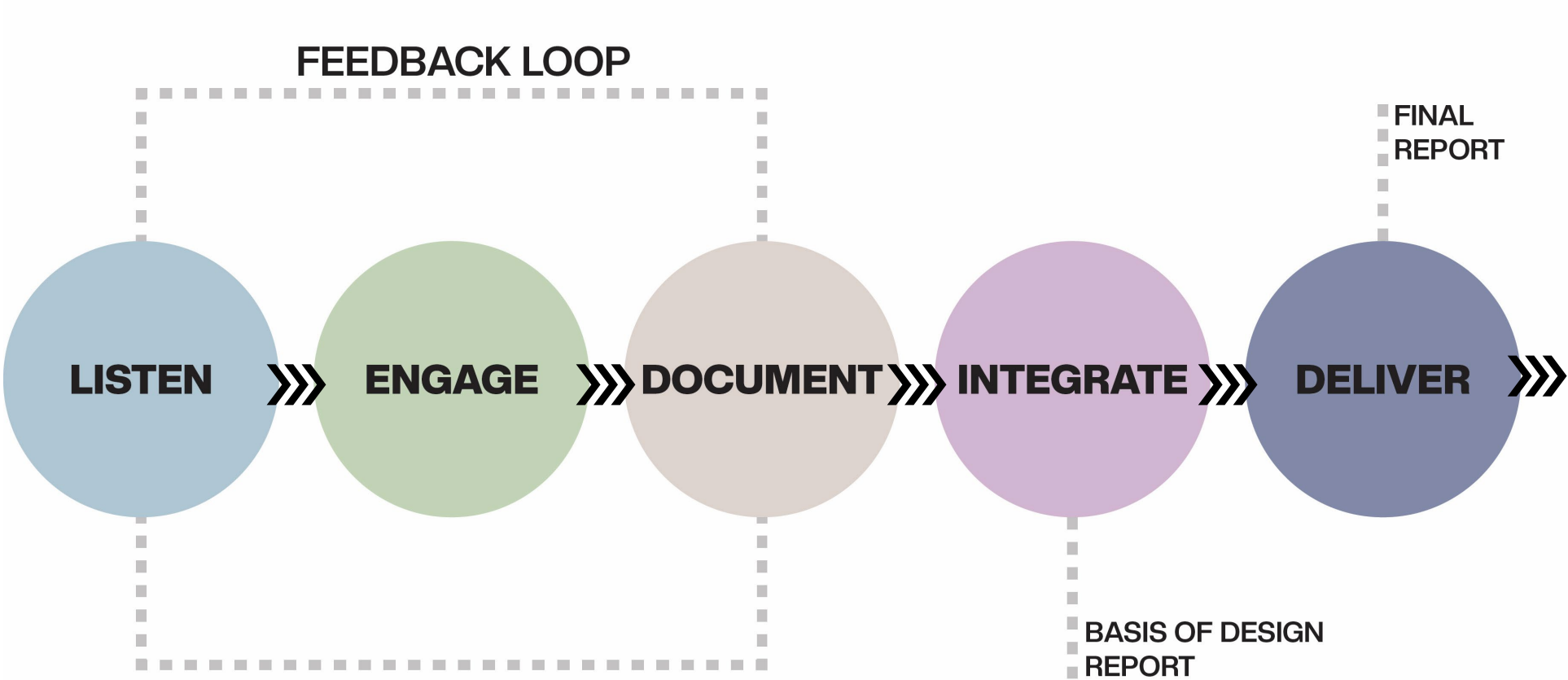
SOUTH VANTAGE
COMMERCIAL DISTRICT & SKI SLOPE



CONTEXT DIAGRAM OF APPARATUS BAY



Engagement Strategy



WHAT IS A BASIS OF DESIGN?

Basis of Design is a technical narrative + decision record with the goal of establishing:

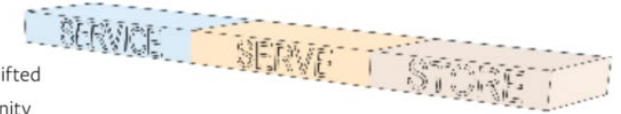
- + The design intent
- + The assumptions and criteria used
- + The systems and strategies selected

Basis of design is the bridge between vision and execution—it ensures everyone understands *why* the building is being designed a certain way.



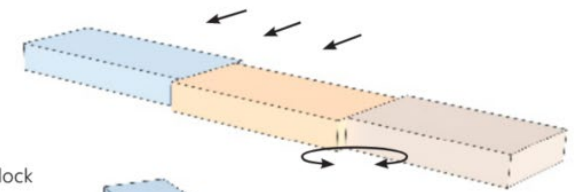
Step 1

“Serve” Block shifted towards community



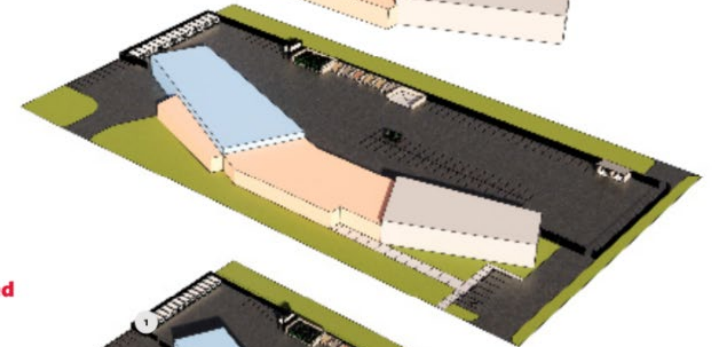
Step 2

Service & Store Block rotated to engage yard



Program Massing:

May of 2022

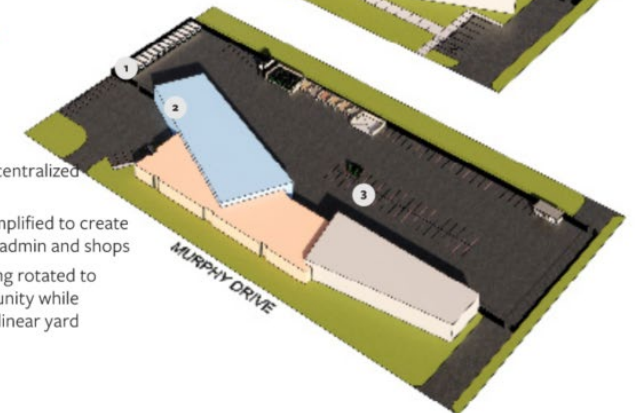


Massing Re-imagined

9/30/2024

KEY

- 1 Entry parking centralized at single entry
- 2 Serve block simplified to create more efficient admin and shops
- 3 Storage massing rotated to engage community while created a rectilinear yard



WHAT ARE THE GOALS OF A BASIS OF DESIGN?

+ Aligning Design with end user / client vision

translate end user goals into spatial and functional design

+ Provide clarity and transparency

Clearly communicate design reasoning to stakeholders

+ To reduce risk and misinterpretation

Prevent scope gaps, conflicting assumptions and redesign



Site and Building Construction	Square Feet	Cost/GSF	Direct Cost
1 Foundation		17.84	\$ 604,083
a standard foundations	33,867	7.29	\$ 246,950
b slab on grade	33,867	10.55	\$ 357,133
2 Basement Constructon			\$ -
a not applicable	0	-	\$ -
3 Superstructure		39.00	\$ 1,320,871
a floor construction	33,867	0.00	\$ -
b Roof Construction	33,867	39.00	\$ 1,320,871
c Pre-engineered Metal Building	21,087		\$ 841,371
4 Exterior Closure		18.25	\$ 618,214
a exterior walls	33,867	4.36	\$ 147,646
b exterior windows	33,867	6.13	\$ 207,553
c exterior doors	33,867	7.77	\$ 263,015
5 Roofing		10.21	\$ 345,713
a roof covering	33,867	10.21	\$ 345,713
6 Interior Construction		24.56	\$ 831,788
a interior partitions	33,867	10.55	\$ 357,433
b interior doors & windows	33,867	6.85	\$ 232,152
c interior fittings	33,867	7.15	\$ 242,204
7 Staircases			\$ -
a not applicable	0	-	\$ -
8 Interior Finishes		11.43	\$ 387,201
a interior partitions	33,867	4.48	\$ 151,824
b floor finishes	33,867	4.35	\$ 147,340
c ceiling finishes	33,867	2.60	\$ 88,037
9 Conveying Systems			\$ -
a not applicable	0	-	\$ -
10 Mechanical Systems			\$ 1,787,430
a plumbing	33,867	12.95	\$ 438,577
b HVAC	33,867	34.43	\$ 1,165,971
c fire protection	33,867	5.40	\$ 182,882
11 Electrical Systems			\$ 1,360,732
a service and distribution	33,867	5.95	\$ 201,462
b miscellaneous power	33,867	3.58	\$ 121,201
c lighting and controls	33,867	13.10	\$ 443,658
d fire alarm	33,867	4.25	\$ 143,935
e IT/ telecom	33,867	5.83	\$ 197,535
f av infrastructure	33,867	2.84	\$ 96,121
g access control	33,867	4.63	\$ 156,821
12 Equipment and Furnishings			\$ 22,200
a Equipment and Furnishings	33,867	0.66	\$ 22,200
b furnishings	33,867	0.00	\$ -
13 Site Work			\$ 1,784,993
a site improvements			\$ 612,640
b utilities			\$ 1,172,353
TOTAL CONSTRUCTION DIRECT COSTS	33,867	\$ 267.61	\$ 9,063,226
Gen. Conditions/Overhead and Profit		18%	\$ 1,631,381
Estimating Contingency		10%	\$ 906,323
TOTAL ESTIMATED CONSTRUCTION COST			\$ 11,600,929

Integrated Basis of Design

Council Input

Policy Priorities, budget

Technical Input

Design team technical expertise

Staff & Crew Needs

Space, workflow, equipment, adjacencies, operational priorities

Site Conditions

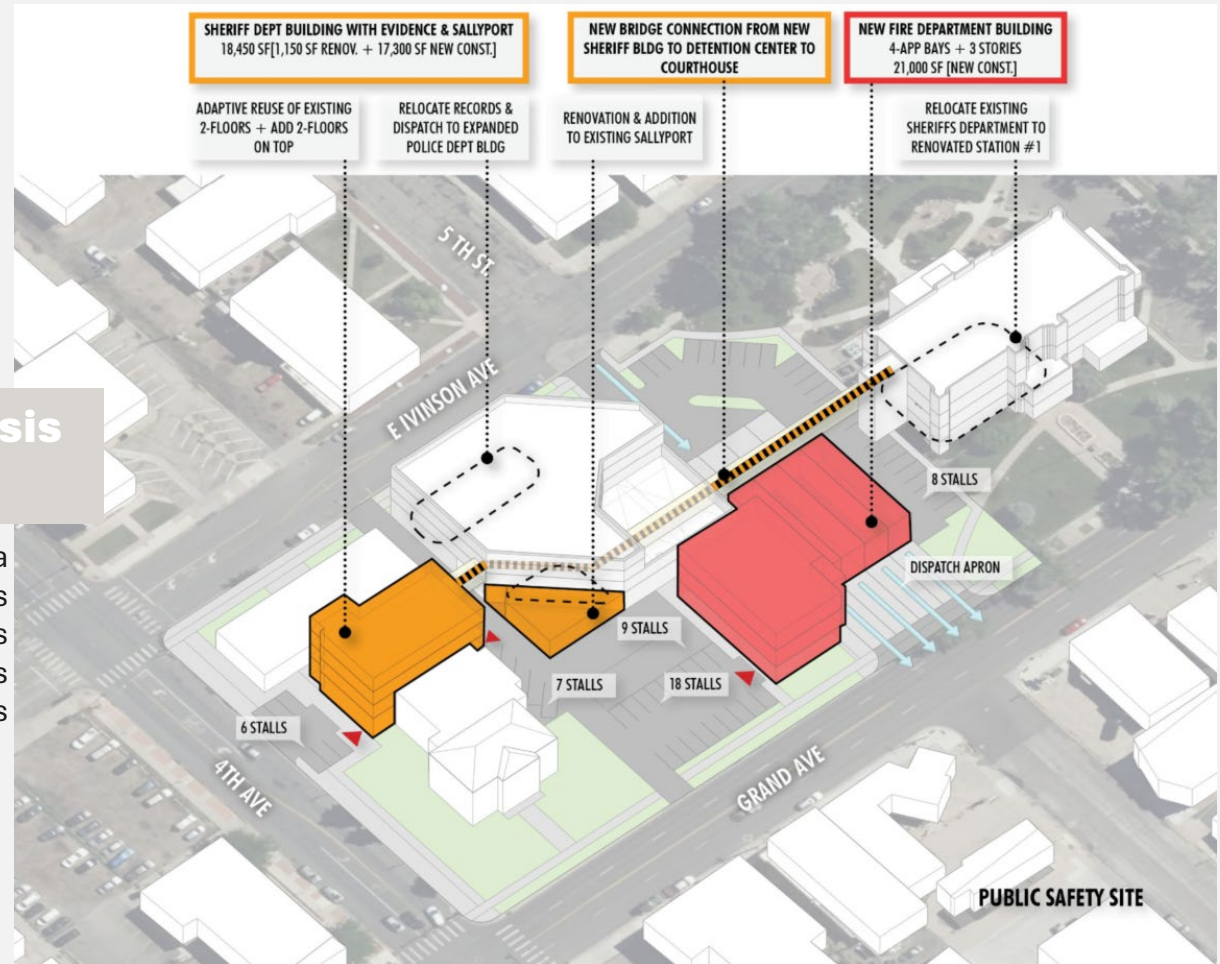
Utilities, access, limitations, opportunities

Cost Insights

Order-of magnitude & scenario costs

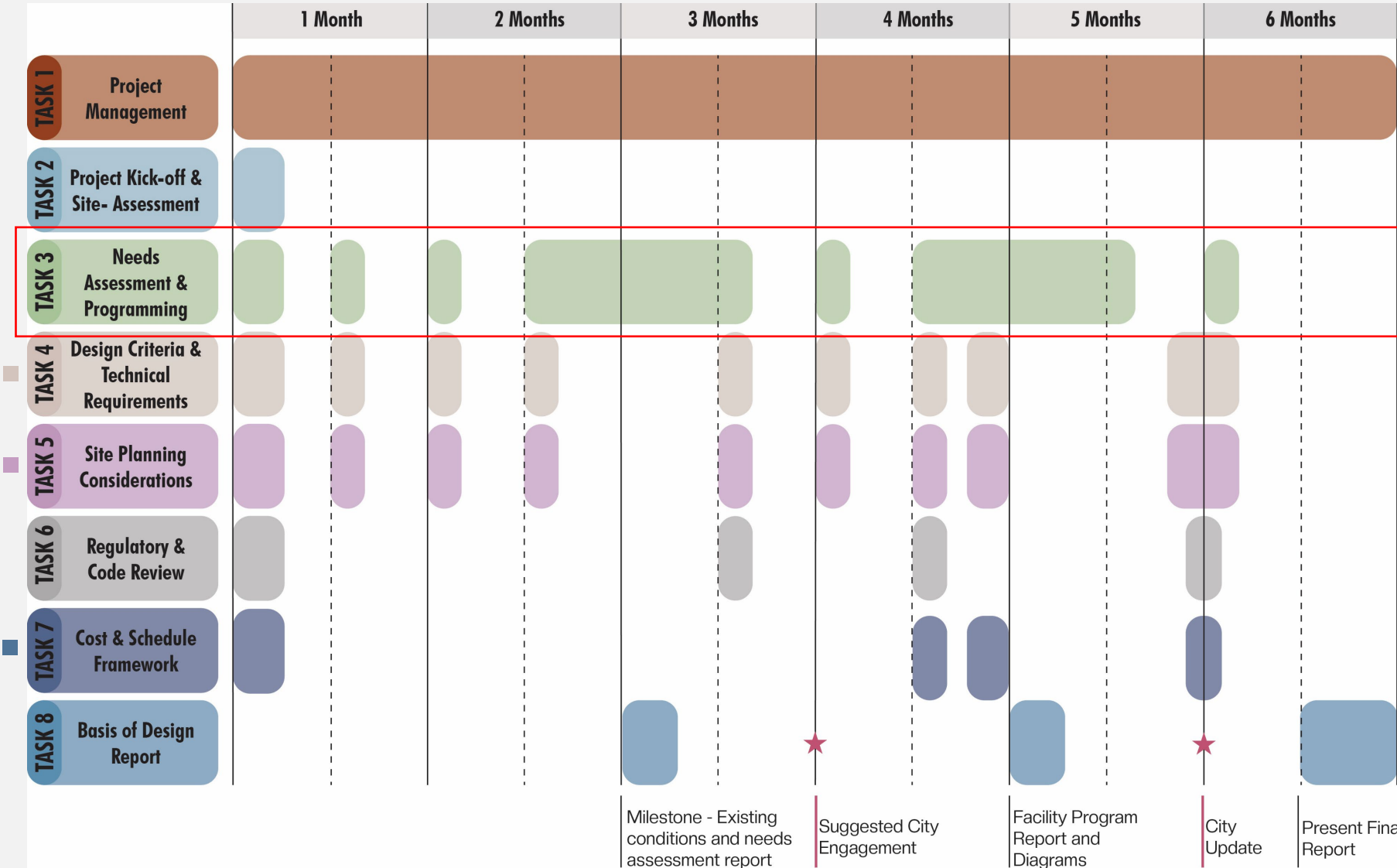
Integrated Basis of Design

Functional criteria
Economy of Systems
Design drivers
Program scenarios
Performance goals



BASIS OF DESIGN TASK SCHEDULE

Basis of Design – Initial Task Schedule



The successful creation of a Basis of Design Report is dependent on timely owner decision-making to maintain feedback throughout concept iterations. At Project Kick-off we will review and refine our suggested schedule (see below) according to the eight (8) tasks noted within the RFP and align milestones and expectations throughout the iterative development of the Basis of Design Report. More importantly, this Master Schedule will provide an opportunity for both Design and Client teams to monitor progress against the schedule.

- MEP, Structural and Architecture teams are engaged and evaluating with technical expertise.
- Civil Team is Engaged to evaluate site conditions and planning
- Cumming Group is engaged to provide costing analysis updates.

BASIS OF DESIGN PROGRESS

Matterport Buildings 2 & 3



BASIS OF DESIGN PROGRESS

Site Visits



BASIS OF DESIGN PROGRESS

Staff Charrette #1

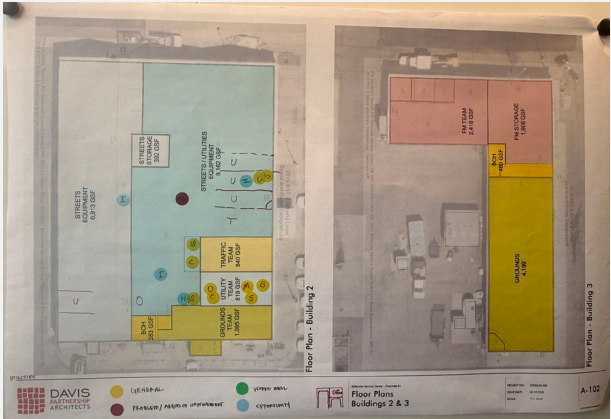
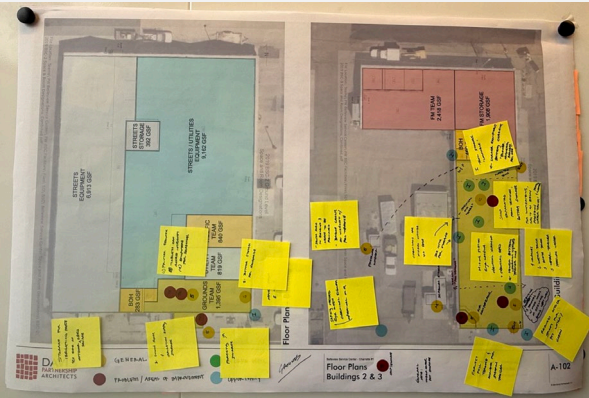
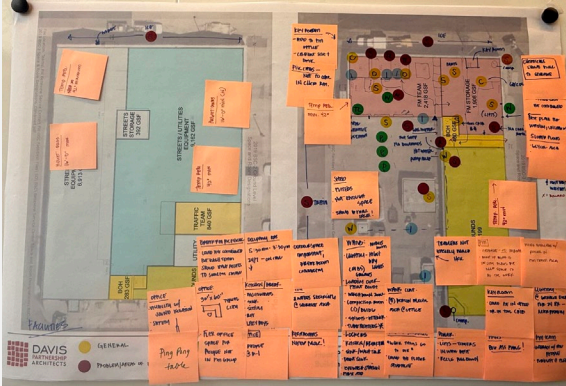
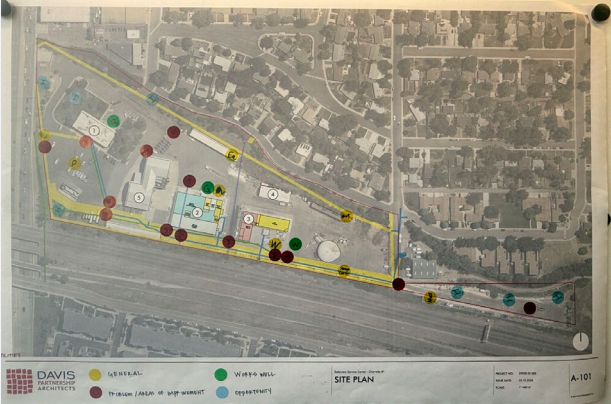
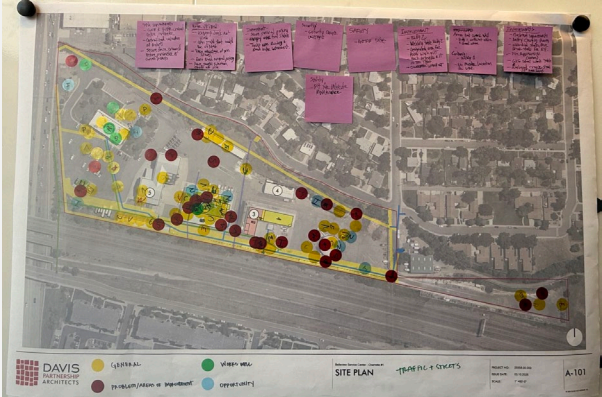
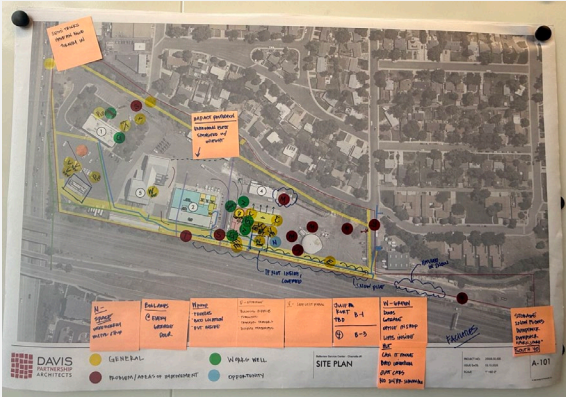
The DPA + SSR team have hosted 2 stakeholder charrette sessions to date with participation from representatives from all departments. These sessions are framed around gathering the necessary information for understanding current use and identify areas of improvements, problems and successes.



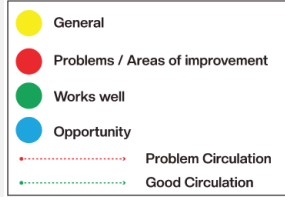
BASIS OF DESIGN PROGRESS



Staff Charrette #1



BASIS OF DESIGN PROGRESS



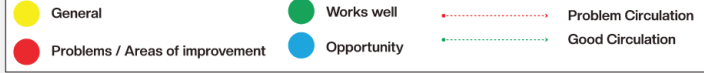
SITE PLAN ASSESSMENT



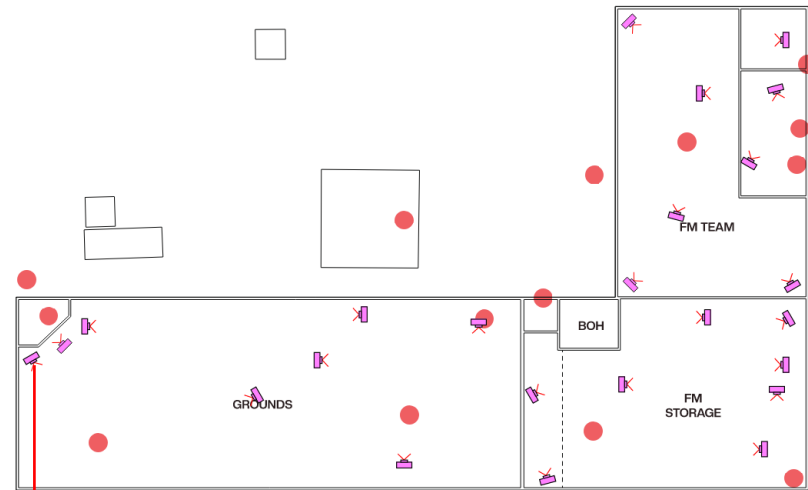
AREAS OF IMPROVEMENT

Key information + Takeaways

- ZONE 1**
- The entry point from the east ramp on site is a safety hazard
 - Building one has poor proximity for access, disrupts daily use of the building - a safe path should be provided
 - The gas tank located in the parking lot is a hazard
 - Some staff have to move between their respective building and building 1. There is not enough space to meet
 - Overnight parking is not consistently in one location
 - Building 1 has minimal lockable storage
 - The fueling station is uncovered and lacks all fuel needs on campus
- ZONE 2**
- There is ice build up on the northern sides of the buildings that presents as a hazard to staff
 - There are no protective bollards in front of the buildings
 - The wash pit behind building 3 is in a poor location and experiences frequent freezing
 - The was pit is too small and the access is very difficult
 - Operationally the bay entry on the back of building 2 is hazardous
 - The areas in front of the buildings can get congested
 - The train track edge is where materials tend to pile up
 - The parking between and around these buildings is not adequate or safe
 - The circulation around these buildings are not adequate or safe
 - Chemical wash locations are non-existent
- ZONE 3**
- Storage tends to build up along the borders of these zones
 - The entry to the south 40 is a pinch point and hazard
 - Grounds storage area is messy and has narrow access; mixing of dissimilar materials
- ZONE 4**
- The southern 40 has many purposes but is not well defined as a designated space for storage or staging



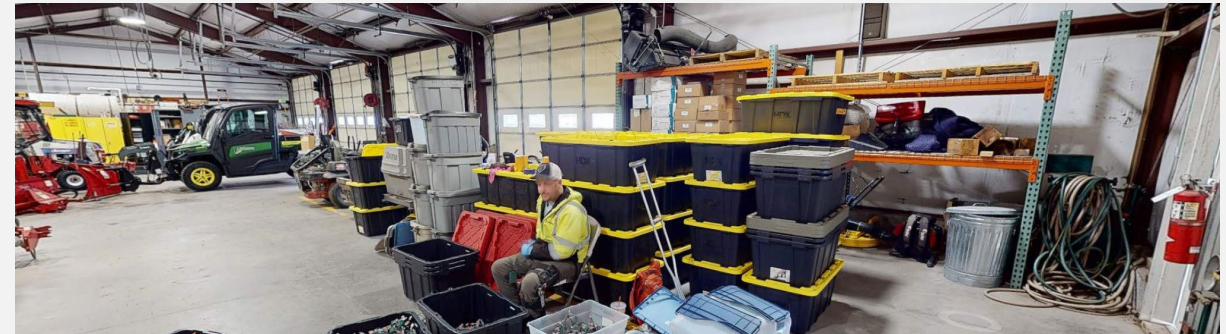
SPACE PLANNING ASSESSMENT
BUILDING 3



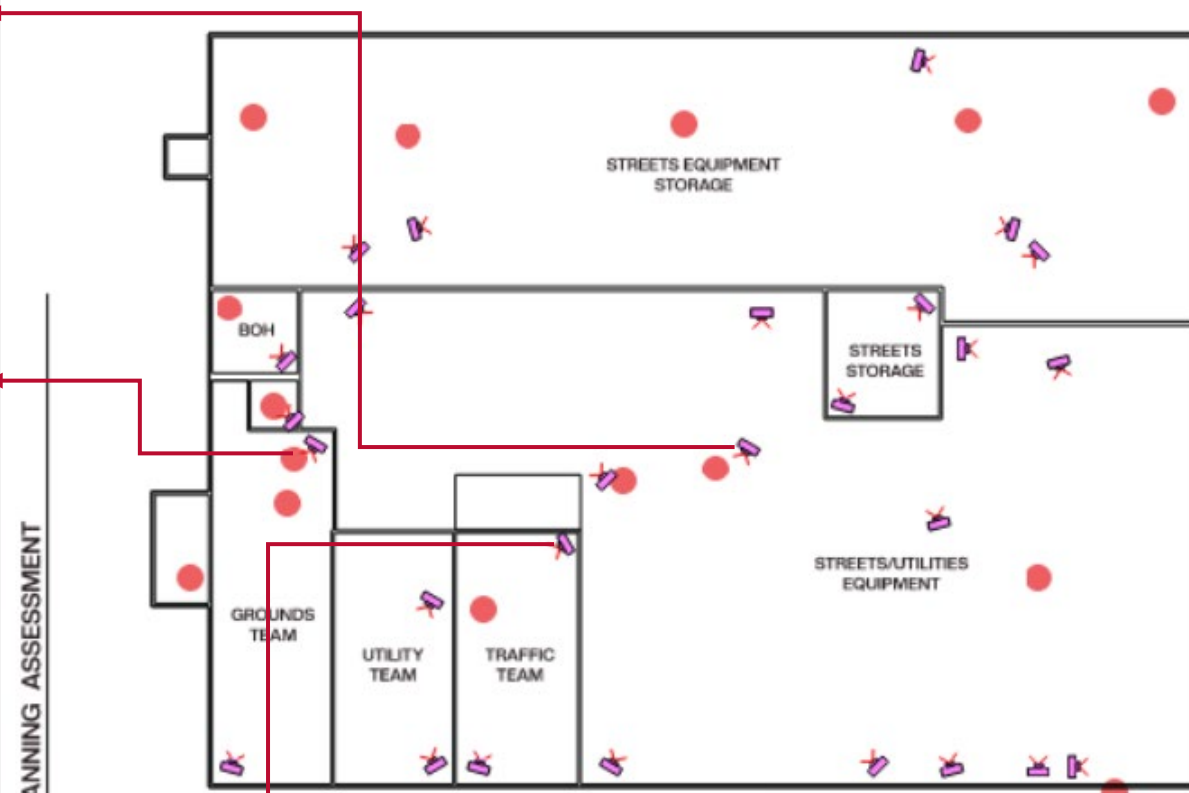
AREAS OF IMPROVEMENT

Key information + Takeaways

- FM TEAM**
- The office spaces generally are not suitable and need to be improved
 - There is no designated meeting space
 - The workshop space is unsafe and needs to be better outfitted for emergencies
 - There is not chemical wash down area for staff protection
 - There is not sufficient access through the side of the building
 - The area of storage above the offices is not usable and has become a hazard
 - There is not direct line of site from the offices to the workspace
 - This area has poor electrical layouts and can make working in this space inconvenient
- FM TEAM STORAGE**
- The air compressor is very noisy and has no noise protection
 - The locked storage area is a temporary solution and needs to be more secure
- GROUNDS**
- The compressor located in the closet is loud and needs noise protection
 - There is not chemical wash down area for staff protection
 - This area has poor electrical layouts and can make working in this space inconvenient
- OTHER**
- The restroom space is ill maintained and needs to be larger to better suit the building needs
 - This building is close to the train tracks and needs proper noise protection
 - The shed on the exterior of the building is for filters etc. and is not large enough. It would be best for this to be indoors
 - There is ice build up on the north side of the building
 - The fire hydrant is what is accessed to use the wash down pit and this connection should be adjusted to avoid this need
 - The building has poor air quality and air quality control
 - This building has poor temperature control



BASIS OF DESIGN PROGRESS



SPACE PLANNING ASSESSMENT
BUILDING 2

AREAS OF IMPROVEMENT

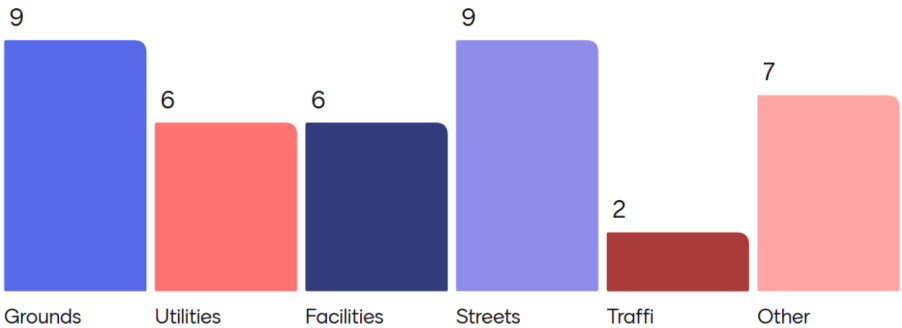
Key information + Takeaways

- STREETS EQUIPMENT STORAGE**
 - The entire area was identified as a problem area
 - There is not enough room for vehicles
 - It is very difficult to maneuver into this space from the exterior
 - The floor is not sloped properly
 - There is materials stored in circulation paths
- STREETS STORAGE**
 - Nothing was identified in this room as an issue
- STREETS AND UTILITIES EQUIPMENT**
 - This space is not large enough for the equipment it houses
 - This room has air/temperature and traffic issues
 - The circulation path is interrupted with materials storage
 - The bays are not equipped to maintenance vehicles
 - There is no safe way to service vehicles
 - There is not proper floor draining / water pools
- TRAFFIC TEAM**
 - The sign print shop and office are combined, this is a cramped space
- UTILITY TEAM**
 - Nothing was identified in this room as an issue
- GROUNDS TEAM**
 - This space is used as office and storage and this is limiting to efficiency
- OTHER**
 - The restrooms are not adequate and flood
 - The small area on the west side of the plan is not accessible unless accessed from the exterior
 - There is ice building up on the east side of the plan that is a hazard to entry into this space
 - This entire building has poor air quality
 - This entire building has poor thermal control
 - This entire building has limit electrical control /capacity/accessibility
 - This entire building has limited safety measures accommodated for

BASIS OF DESIGN PROGRESS



Which team are you a member of?



Staff Charrette #2

The DPA + SSR team have hosted 2 stakeholder charrette sessions to date with participation from representatives from all departments. These sessions are framed around gathering the necessary information for understanding current use and identify areas of improvements, problems and successes.

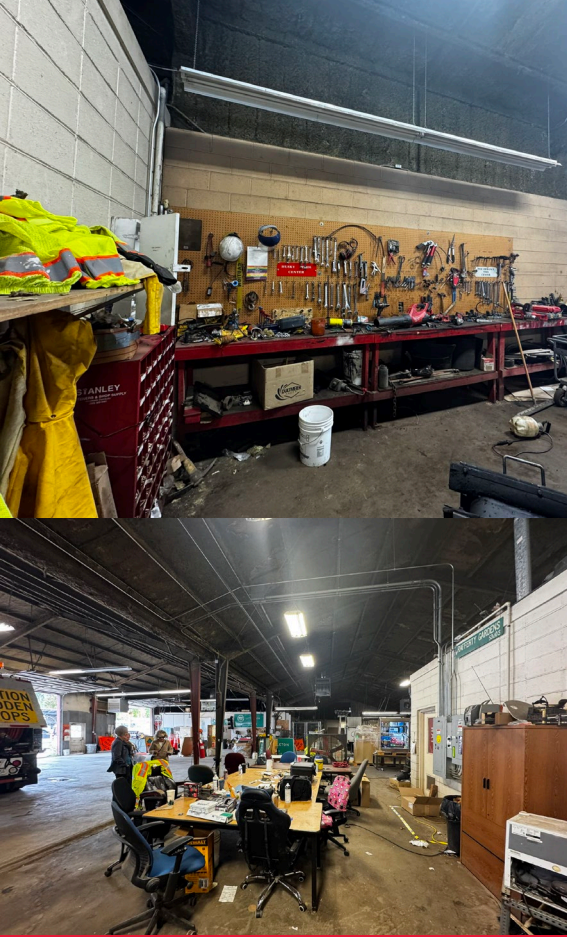
BASIS OF DESIGN PROGRESS



A **facilities assessment** comprehensive evaluation of an existing building and its site to understand current conditions, operational performance, deficiencies, and opportunities for improvement. It establishes a factual, data-driven baseline that informs all planning, programming, cost estimating, and design decisions that follow.

Methodology

1. Planning and Preparation
2. On-Site Assessment and Data Collection
3. Analysis and Reporting



Project Name	Steamboat Springs Station 1
Project Location	Steamboat Springs, CO
Project Type	Fire Station
Building Occupancy	B, R-2, S-2



Apparatus Bay

Design Intent
 (3) Drive through, Double deep, Aerial Truck accommodating, EV ready, Cab Inspection Accommodating, Apparatus bays

Room Type	Apparatus Parking
------------------	-------------------

- Function & Activities** Accommodate about 5 vehicles
- **One Aerial Platform Truck**- (226) 2018 Pierce Velocity (32390) Pierce (32390) Ascendant 110' rear-mount aerial platform 1250 GPM pump, 300 gallon water tank and 20 gallon foam cell (Husky).
 - **One or Two Medic Trucks shared between Mountain Station**- (222) 2015 Ram 4500 4x4 / Braun Northwest North Star (2126-1)
 OR
 2021 Ram 4500 4x4 SLT / Braun Northwest North Star (3275-1) 154" Module.
 - **One ladder trucks**- (218) 2009 Spartan Metro Star / Rosenbauer / General Safety 1250 GPM pump, 750 gallon water tank and 30 gallon foam cell.
 - **One Brush Truck**- (212) 2008 Ford F-550 4x4 Super Duty / OJ Watson.

Quantity	(3) App Bays
Area (NSF)	115
Plan Dimensions	65' x 80' Apparatus Bays 52' Deep Exit Apron 25' Deep Entry Apron
Floor Height	24'-0"
Ceiling Height	22'-0" & 19'-4" at Primary Beams

Environmental Comfort

Heat/Cool	72 deg to 80 deg +/-
Acoustics	NA
Pressure Zone	Red/Hot

HVAC
 Mechanically ventilated
 Hydronic Radiant floor indoor
 Hydronic Snow melt on Aprons
 Plymovent vehicle exhaust system at each bay
 OS-4 Control & CO/NO2 Gas detectors
 Greenheck High Volume, Low speed Ceiling fan

Lighting & Controls
 App bay High lights and Static red pendants integrated with Manual/Automatic Lighting control system and Station Alerting System

Special Considerations
 Negatively pressured zone to remove contaminants in air. Lighting control to dim at sunset to follow neighborhood light pollution ordinances

Materials

Floor
 Sealed Concrete floor; Painted guide lanes for safety.

Walls
 Prefinished corrugated metal cladding & sealed concrete walls.

Ceiling
 Open to Structure. Painted black.

Wall Base
 Rubber base at drywall

Door, Windows & Hardware

Doors
 521 Series 14' x 14' Overhead Alum Sectional Doors; Side mount operator; manual latch; HM door panel & frame general access doors.

Windows
 Alum Framed Storefront Fixed window system

Window Coverings
 Rough in provided for future roller shades

Hardware
 Classroom Lockset

Access Control
 Key-in/ Card Key

FF&E

Furniture NA

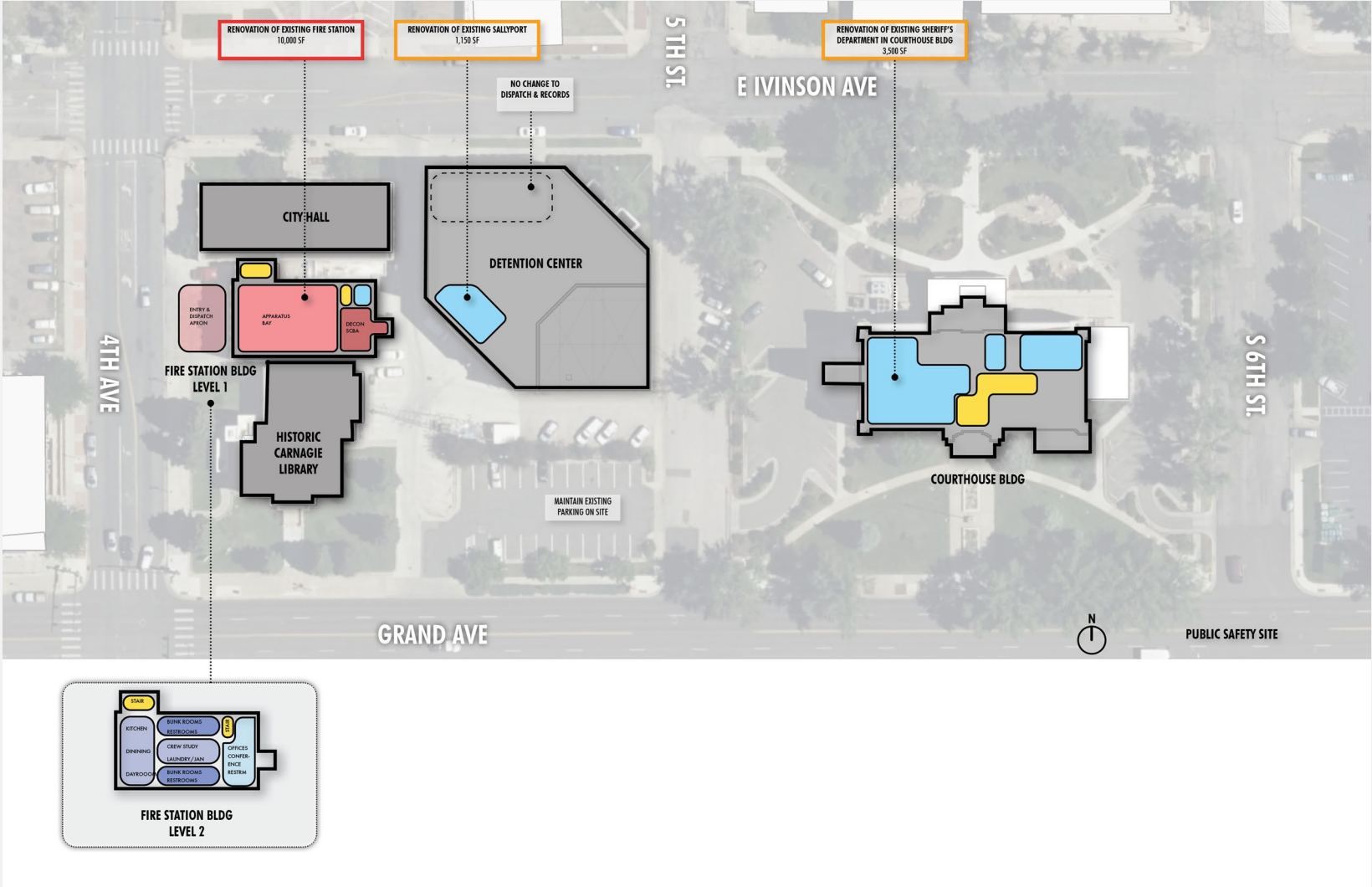
Light Fixtures
 High bay with Red light pendant

Equipment

BASIS OF DESIGN-NEXT STEPS

Next steps :

- +Site Walk with City Council
- +Programming + Analysis
- +Stakeholder Charrette #3
 - +Programming review and feedback
- +Ongoing Documentation for final reporting



Example Programming Graphic

BASIS OF DESIGN THANK YOU



**TOGETHER WE ARE DRIVEN
TO CREATE SPACES THAT INSPIRE
ELEVATING THE JOY AND DIGNITY
OF THE HUMAN EXPERIENCE**

