

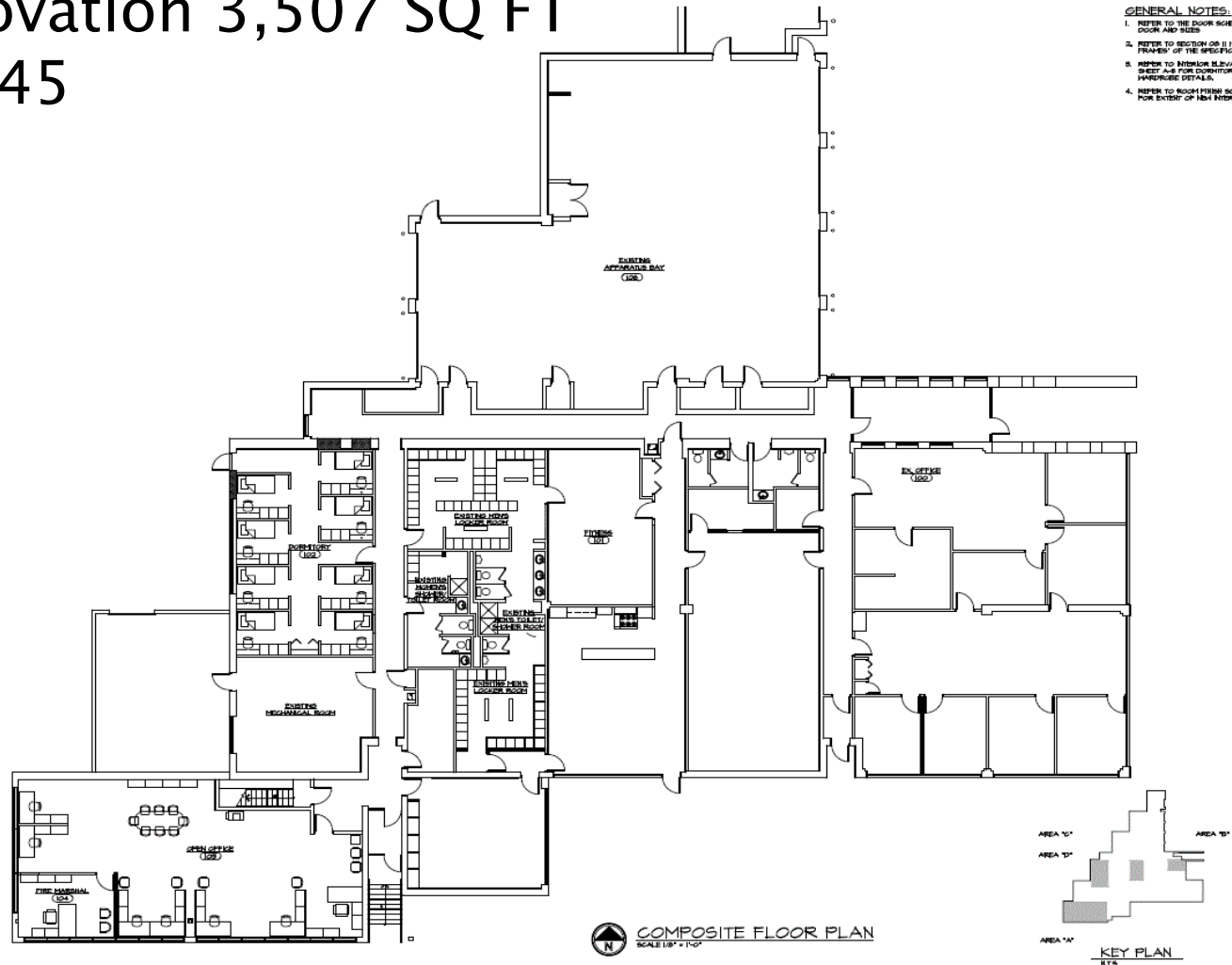
**Proposed Renovations to Fire Stations 1,2,3,5**

**Proposed New Building at Fire Station #4**

**October 5, 2015**

# Fire Station #1

- Interior Renovation 3,507 SQ FT
- Cost \$404,345



# Fire Station #1

## Station #1: Total scope changes: \$83,500

- Modify tray windows in entrance vestibule \$3,000–\$5,000
- Added overhead door controls at dispatch \$5,000 (Complete Traffic Signal Bid)
- HVAC system for heating/cooling problems in office/living areas \$5,000–\$7,000
- Update 40 existing doors and hardware for ADA compliance and physical deficiencies \$16,000 (Complete Interior Door & Hardware Bid)
- Provide WesNet system for this facility \$35,000.00 total WesNet system (comes as a package for all stations)
- Add door & partition for security protection in central hallway Security added to existing front door \$3,000–\$5,000
- Provide additional overhead compressed air and electrical drops in garage \$5,000–\$6,000
- Provide exterior powered bollards for exterior vehicle charging both sides of building \$1,500
- Provide electric cord reels in bays \$3,000.00

# Fire Station #1

## Cost Cutting

- Evaluated electric cord reels (Station #1).
- Evaluated (6) Electric bollards (Station #1).
- Evaluated replacement of lobby windows (Station #1).
- Evaluated traffic signal controls (Station #1).
- Eliminate security door in main hallway (Station #1) Estimate \$2,972.
- Removed Fire Marshal renovation (Station #1) Estimate \$61,085.

# Fire Station #1

## Cost Cutting Cont.

- Eliminate building permit fees (Stations #1, 2, 3, 5). \$57,400. Combined savings for 4 stations.
- Evaluated pro–press plumbing joints in lieu of solder (Stations #1–5).
- Evaluated Pex tubing in lieu of copper in unexposed areas. (Stations #1–5).
- Evaluated forced air in lieu of VRF heating/cooling system. (Determined unfeasible due to fresh air requirements and roof construction mounting limitations) (Stations #1–5).

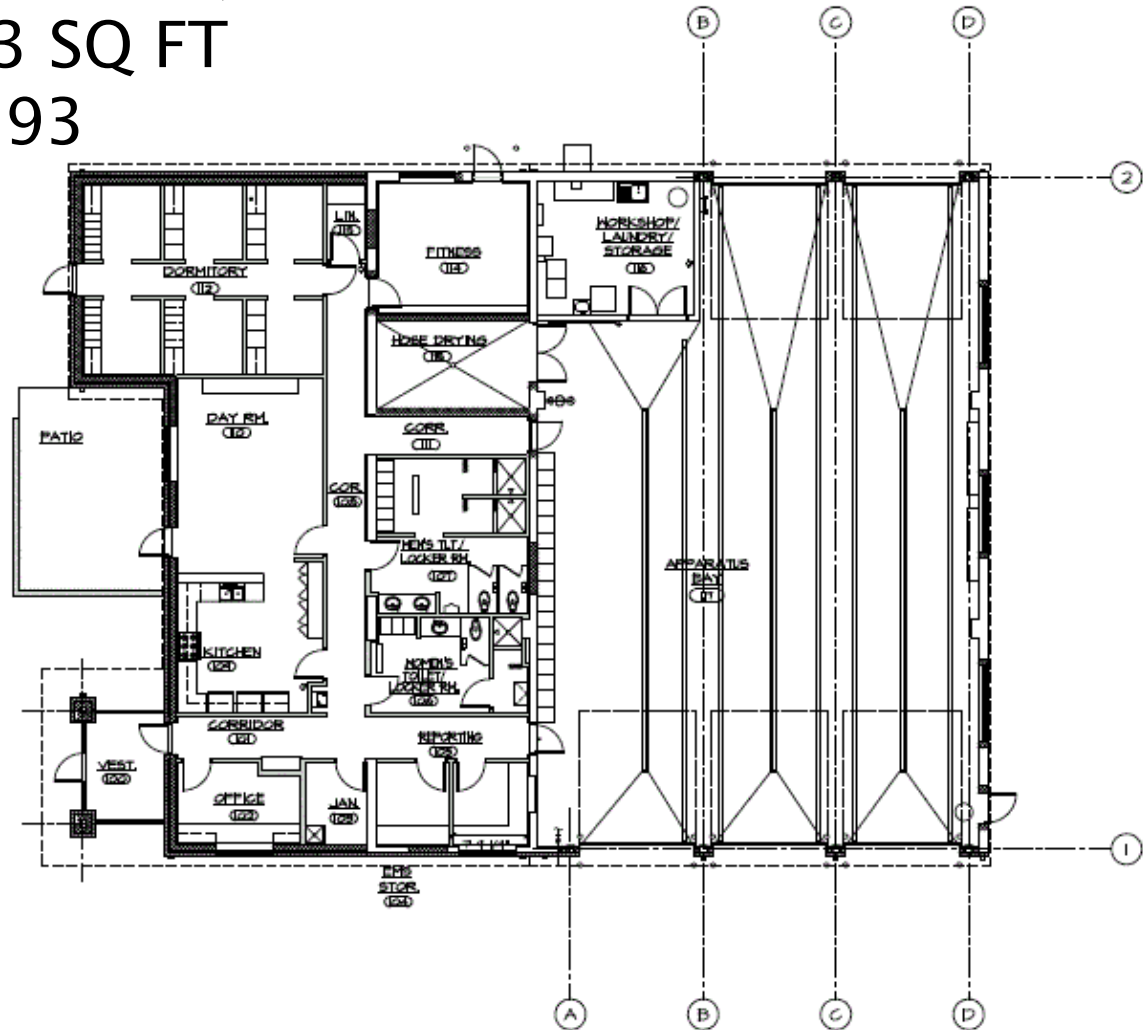
# Fire Station #1

## Cost Cutting Cont.

- Evaluated fluorescent lighting in lieu of LED (Stations #1–5)
- Reduced the number of electrical & data outlets (Stations #1–5).
- Reduced the number of light fixtures (Stations #1–5).
- Evaluated wall and floor finishes (epoxy vs ceramic vs Vct etc) (Stations #1–5).
- Evaluated wall tile 1/2 way up verses full height (Stations #1–5).

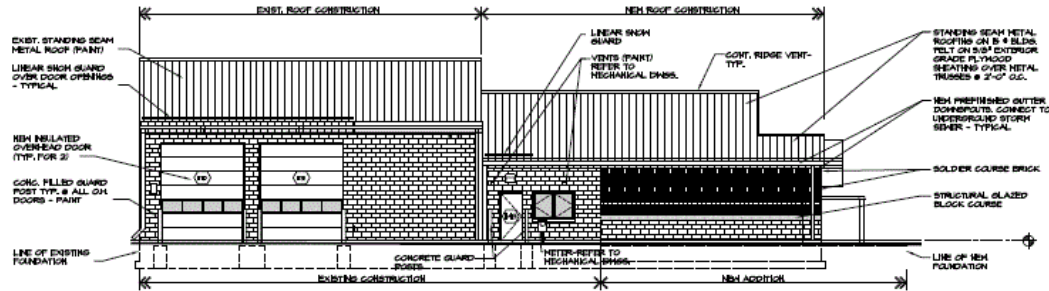
# Fire Station #2

- Interior Renovation 4,400 SQ FT
- Addition 1,883 SQ FT
- Cost \$2,152,593

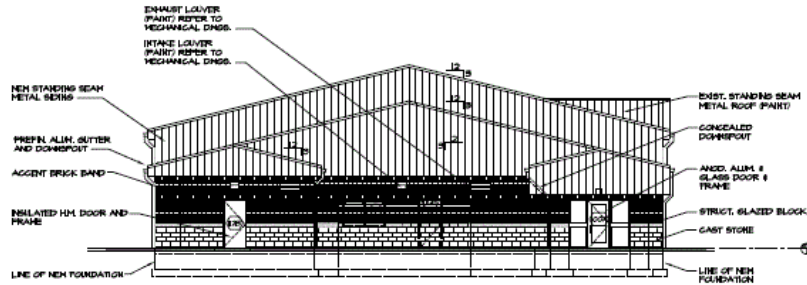


FLOOR PLAN #2 (BROOKLANDS)

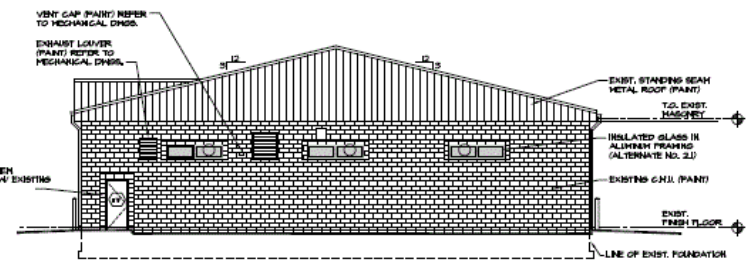
# Fire Station #2



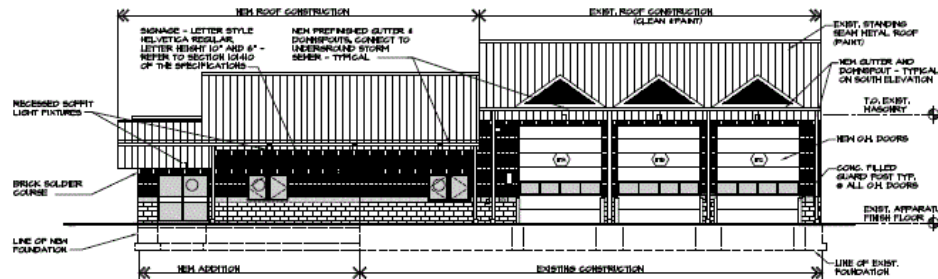
NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION



SOUTH ELEVATION



# Fire Station #2

Station #2: Total scope changes: \$228,500

- Replace existing sanitary sewer lead due to faulty condition of existing. \$9,000–\$14,000
- Replaced crushed concrete stone base to limestone \$1,000–\$2,000
- Install perimeter underground storm drain system for downspout connections. \$10,000–\$15,000
- Recessed floor mat at entrance vestibule \$1,000–\$2,000
- Formed concrete footings and reinforced masonry foundation walls in lieu of concrete trench footings due to poor soil conditions. \$7,000
- Install dry fire sprinkling system in existing attic \$38,500
- Raise existing door opening heights for taller doors (14ft. in lieu of existing 12 ft.) 5 doors. \$80,000–\$85,000
- Add (3) clerestory windows in apparatus bay \$10,000–\$15,000
- Removal of underground storage tank \$50,000

# Fire Station #2

## Cost Cutting

- Evaluated masonry core fill insulation (Station #2).
- Considered revising Station #2 doors to accommodate heights (e.g. bi-fold or rolling doors) (Station #2).
- Evaluated cost saving options for raising of overhead doors at Station #2. Replace existing roof Station 2 in lieu of modifying existing roof structure for new overhead door height (Station #2).
- Adjusted Station #2 layout to eliminate mezzanine (Station #2) Estimate \$30,480.

# Fire Station #2

## Cost Cutting Cont.

- Adjusted Station #2 layout to eliminate drive thru bay and reduce size of addition. Redesigned to eliminate 1<sup>st</sup> lane drive thru bay and reduce building area from 6,753 s.f. down to 6,184 s.f. (Station #2) Estimate \$63,500.
- Living quarters at DPS (Station #2) savings \$100,000.
- Eliminate building permit fees (Stations #1, 2, 3, 5). \$57,400. Combined savings for 4 stations.
- Evaluated pro–press plumbing joints in lieu of solder (Stations #1–5).
- Evaluated Pex tubing in lieu of copper in unexposed areas. (Stations #1–5).

# Fire Station #2

## Cost Cutting Cont.

- Evaluated forced air in lieu of VRF heating/cooling system. (Determined unfeasible due to fresh air requirements and roof construction mounting limitations) (Stations #1–5).
- Evaluated fluorescent lighting in lieu of LED (Stations #1–5).
- Reduced the number of electrical & data outlets (Stations #1–5).
- Reduced the number of light fixtures (Stations #1–5).

# Fire Station #2

## Cost Cutting Cont.

- Evaluated wall and floor finishes (epoxy vs ceramic vs Vct etc) (Stations #1-5).
- Evaluated wall tile 1 / 2 way up verses full height (Stations #1-5).
- Delete (3) New clerestory windows in apparatus bays (Station #2 & 3) Estimate \$25,578. Combined savings for both stations.
- Evaluated painting of existing roofs (Stations #2, 3 & 5).
- Evaluated crushed concrete base in lieu of limestone (Stations #2 & 4).

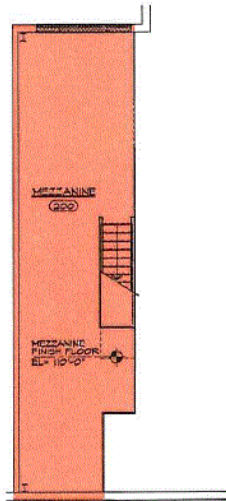
# Fire Station #2

## Cost Cutting Cont

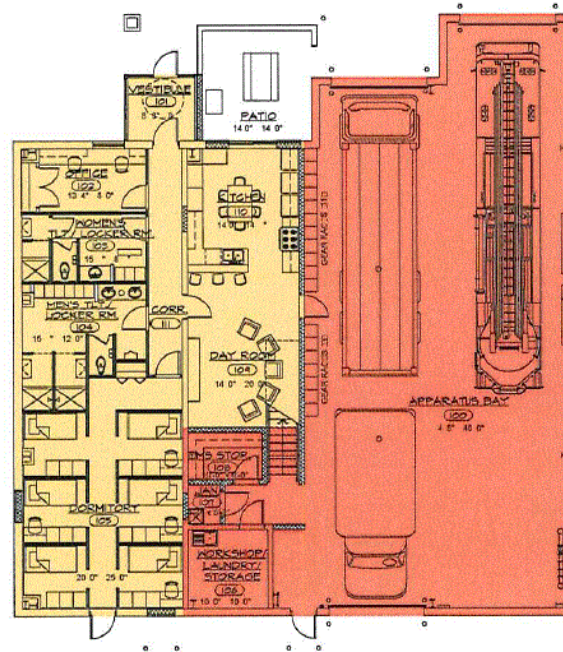
- Evaluated patio areas (e.g. vinyl fence in lieu of masonry walls with footings) (Stations #2-5).
- Evaluated cost of various footing construction methods trench, formed and masonry (Stations #2-5).
- Evaluated addressable fire alarm system (Stations #2-5).
- Evaluated diesel generators in lieu of Natural Gas (Stations #2-5).
- Evaluated reuse of existing generators (Stations #2-5).
- Evaluated painting interior side of exterior block in lieu of furring & drywall (Stations #2-5).

# Fire Station #3

- Interior Renovations 4,483 SQ FT
- Addition 886 SQ FT
- Vestibule 81 SQ FT
- Cost \$1,598,118



 FLOOR PLAN - MEZZANINE  
SCALE 1/8" = 1'-0"

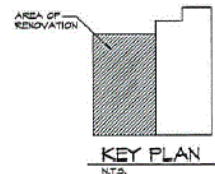


 FLOOR PLAN #3 (AVONDALE)  
SCALE 1/8" = 1'-0"

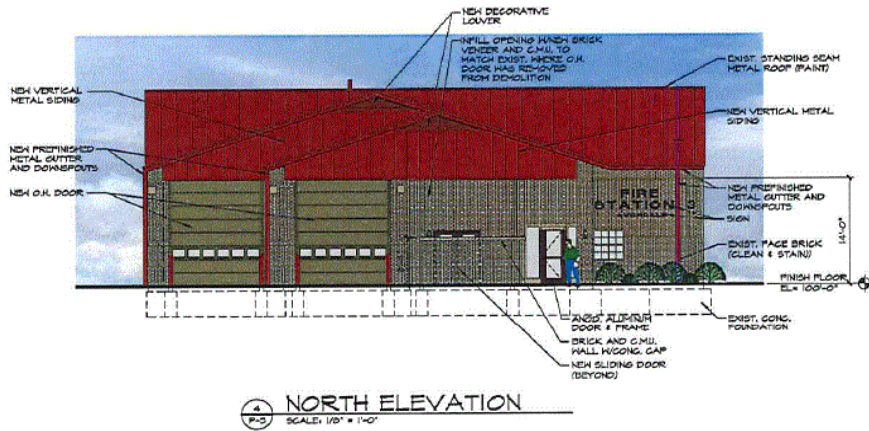
**BUILDING DATA**

EXISTING BUILDING.....	4,483 S . FT.
MEZZANINE.....	886 S . FT.
VESTIBULE ADDITION.....	81 S . FT.
<b>TOTAL.....</b>	<b>5,450 S . FT.</b>

- APPARATUS BAY AREA 
- LIVING QUARTERS AREA 



# Fire Station #3





# Fire Station #3

## Station #3: Total scope changes: \$44,500

- Temporary underground power & utilities (pavement cutting for trailer service leads in lieu of overhead) \$15,000–\$20,000
- Convert shower stall into a toilet stall \$2,000–\$4,000
- Replacement of existing entrance sidewalk \$1,000–\$2,000
- Recessed floor mat at entrance vestibule \$1,000–\$2,000
- Add (3) clerestory windows in apparatus bay \$10,000–\$15,000
- Formed concrete footings and reinforced masonry foundation walls in lieu of concrete trench footings due to poor soil conditions. \$1,500

# Fire Station #3

## Cost Cutting

- Eliminate building permit fees (Stations #1, 2, 3, 5). \$57,400. Combined savings for 4 stations.
- Evaluated pro–press plumbing joints in lieu of solder (Stations #1–5).
- Evaluated Pex tubing in lieu of copper in unexposed areas. (Stations #1–5).
- Evaluated forced air in lieu of VRF heating/cooling system. (Determined unfeasible due to fresh air requirements and roof construction mounting limitations) (Stations #1–5).
- Evaluated fluorescent lighting in lieu of LED (Stations #1–5)

# Fire Station #3

## Cost Cutting Cont.

- Reduced the number of electrical & data outlets (Stations #1–5).
- Reduced the number of light fixtures (Stations #1–5).
- Evaluated wall and floor finishes (epoxy vs ceramic vs Vct etc) (Stations #1–5).
- Evaluated wall tile 1 / 2 way up verses full height (Stations #1–5).
- Delete (3) New clerestory windows in apparatus bays (Station #2 & 3) Estimate \$25,578. Combined savings for both stations.

# Fire Station #3

## Cost Cutting Cont.

- Evaluated patio areas (e.g. vinyl fence in lieu of masonry walls with footings) (Stations #2–5).
- Evaluated cost of various footing construction methods trench, formed and masonry (Stations #2–5).
- Evaluated addressable fire alarm system (Stations #2–5).
- Evaluated diesel generators in lieu of Natural Gas (Stations #2–5).
- Evaluated reuse of existing generators (Stations #2–5).

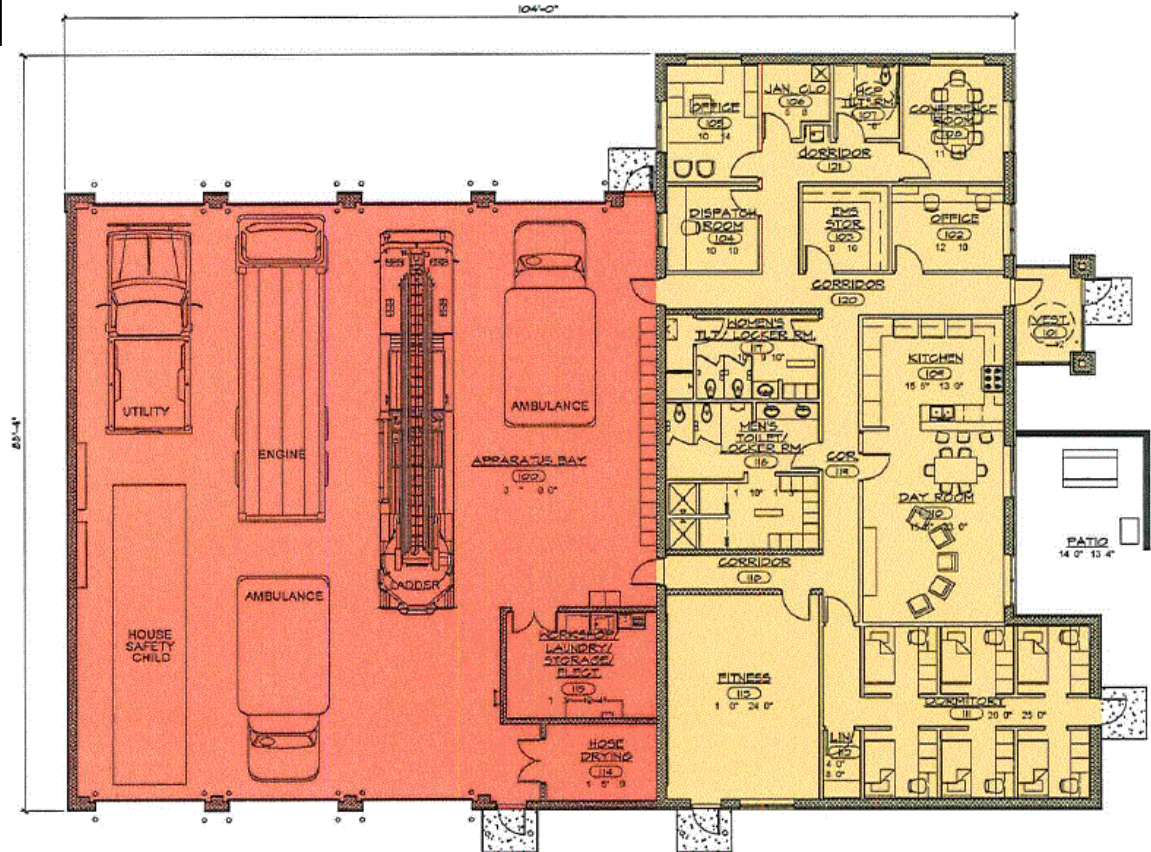
# Fire Station #3

## Cost Cutting Cont.

- Evaluated painting interior side of exterior block in lieu of furring & drywall (Stations #2-5).
- Evaluated brick staining (Stations #3 & 5).
- 
- Evaluated keeping existing overhead doors & paint (Stations #3 & 5).
- Cast in place mezzanine in lieu of pre-cast planks (Stations #3 & 5).
- Delete site lighting (Stations #3 & 5) Estimate \$64,700. Combined savings for both stations.

# Fire Station #4

- New Building 8,345 SQ FT
- Cost \$4,563,951



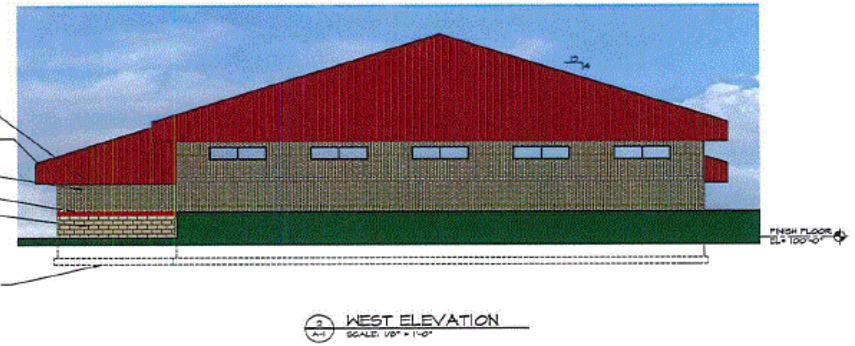
FLOOR PLAN #4 (MEADOWBROOK)

SCALE 1/8" = 1'-0"

### BUILDING DATA

PROPOSED BUILDING.....8,345 S . FT.

# Fire Station #4



# Fire Station #4

## Station #4: Total scope changes: \$401,000

- Underground storm water detention system in lieu of expanding existing pond including storm sewer extension to existing catch basin east of site along Walton Blvd. \$110,000–\$118,000
- New traffic light in lieu of reuse of existing \$115,000 (Complete New Signal Bid)
- Extensive tiered retaining wall systems and planters along south and east property lines \$85,000– \$93,000
- \$35k planting allowance for neighbor buffering \$35,000
- Two fire hydrants \$6,500–\$7,500
- Replaced crushed concrete stone base to limestone \$2,000
- Bike rack \$1,500
- Recessed floor mat at entrance vestibule \$1,000–\$2,000
- Formed concrete footings and reinforced masonry foundation walls in lieu of concrete trench footings due to poor soil conditions. \$23,000–\$27,000
- Natural gas generator in lieu of diesel generator



# Fire Station #4

## Cost Cutting

- Evaluated the removal of the underground storm detention system at Station #4 and providing a pond (Station #4).
- Evaluation of the proposed storm sewer and retention basin for cost savings (Station #4).
- Checked into relocation of existing traffic signal equipment (Station #4).
- Evaluated grade adjustments to eliminate/minimize poured & landscaping retaining walls. Poured retaining walls verses segmental block retaining wall system (Station #4).
- Evaluated providing 8" concrete in lieu of asphalt (Station #4).

# Fire Station #4

## Cost Cutting Cont

- Evaluated possible thickened slab verses poured footing for interior bearing walls (Station #4).
- Removed LED can light in fitness room (Station #4).
- Removed floor drain in single occupancy bath room (Station #4).
- Eliminate building permit fees (Station #4). \$39,300
- Eliminate engineering review and inspection fees (Station #4). \$56,600

# Fire Station #4

## Cost Cutting Cont

- Evaluated pro–press plumbing joints in lieu of solder (Stations #1–5).
- Evaluated Pex tubing in lieu of copper in unexposed areas. (Stations #1–5).
- Evaluated forced air in lieu of VRF heating/cooling system. (Determined unfeasible due to fresh air requirements and roof construction mounting limitations) (Stations #1–5).
- Evaluated fluorescent lighting in lieu of LED (Stations #1–5)

# Fire Station #4

## Cost Cutting Cont

- Reduced the number of electrical & data outlets (Stations #1–5).
- Reduced the number of light fixtures (Stations #1–5).
- Evaluated wall and floor finishes (epoxy vs ceramic vs Vct etc) (Stations #1–5).
- Evaluated wall tile 1 / 2 way up verses full height (Stations #1–5).
- Evaluated crushed concrete base in lieu of limestone (Stations #2 & 4).

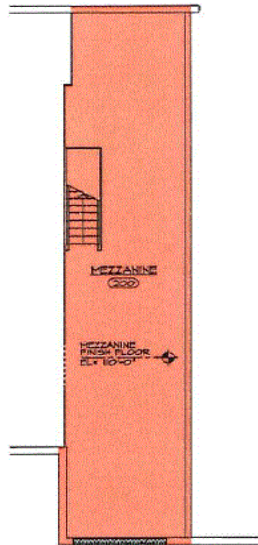
# Fire Station #4

## Cost Cutting Cont

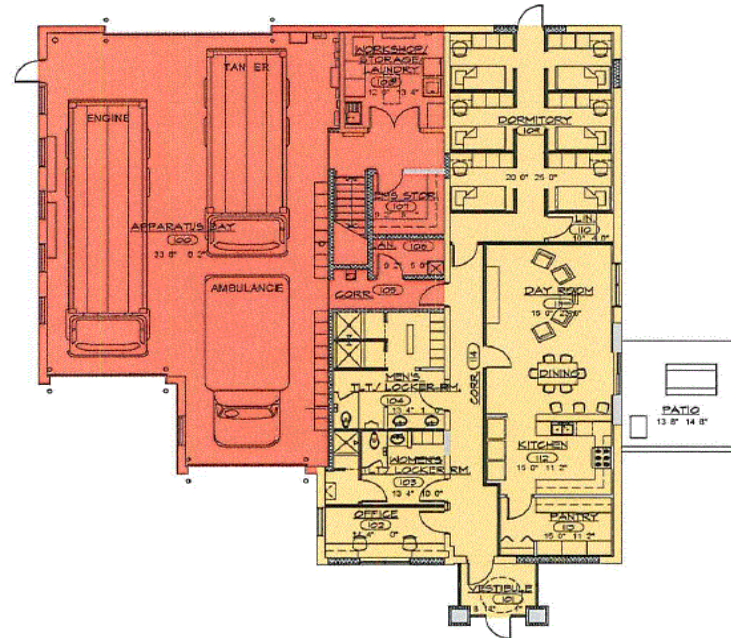
- Evaluated patio areas (e.g. vinyl fence in lieu of masonry walls with footings) (Stations #2– 5).
- Evaluated cost of various footing construction methods trench, formed and masonry (Stations #2– 5).
- Evaluated addressable fire alarm system (Stations #2–5).
- Evaluated diesel generators in lieu of Natural Gas (Stations #2–5).
- Evaluated reuse of existing generators (Stations #2–5).
- Evaluated painting interior side of exterior block in lieu of furring & drywall (Stations #2–5).

# Fire Station #5

- Interior Renovations 4,630 SQ FT
- Mezzanine 1,060 SQ FT
- Vestibule Addition 69 SQ FT
- Cost \$1,760,062



**FLOOR PLAN - MEZZANINE**  
SCALE 1/4" = 1'-0"



**FLOOR PLAN #5 (STONEY CREEK)**  
SCALE 1/8" = 1'-0"

**BUILDING DATA**

EXISTING BUILDING.....	4,305	.FT.
MEZZANINE.....	1,060	.FT.
VESTIBULE ADDITION.....	69	.FT.
TOTAL.....	5,595	.FT.

APPARATUS BAY AREA	<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span>
LIVING QUARTERS AREA	<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span>

# Fire Station #5

# Fire Station #5

## Station No. 5: Total scope changes: \$88,000

- Extensive cutting of existing pavement for new and temporary utilities \$17,500 (Total for Site Asphalt & Concrete Bid)
- Temporary sanitary sewer for trailer \$8,000–\$13,000
- Recessed floor mat at entrance vestibule \$1,000–\$2,000
- Convert shower stall into a toilet stall \$2,000–\$4,000
- Extensive removal of interior slabs for new underground utilities \$36,500 (Total Interior Concrete Bid)
- Add (3) clerestory windows in apparatus bay \$10,000–\$15,000



# Fire Station #5

## Cost Cutting Cont

- Eliminate building permit fees (Stations #1, 2, 3, 5). \$57,400. Combined savings for 4 stations.
- Evaluated pro–press plumbing joints in lieu of solder (Stations #1–5).
- Evaluated Pex tubing in lieu of copper in unexposed areas. (Stations #1–5).
- Evaluated forced air in lieu of VRF heating/cooling system. (Determined unfeasible due to fresh air requirements and roof construction mounting limitations) (Stations #1–5).
- Evaluated fluorescent lighting in lieu of LED (Stations #1–5)

# Fire Station #5

## Cost Cutting Cont

- Reduced the number of electrical & data outlets (Stations #1–5).
- Reduced the number of light fixtures (Stations #1–5).
- Evaluated wall and floor finishes (epoxy vs ceramic vs Vct etc) (Stations #1–5).
- Evaluated wall tile 1 / 2 way up verses full height (Stations #1–5).
- Evaluated painting of existing roofs (Stations #2, 3 & 5).

# Fire Station #5

## Cost Cutting Cont

- Evaluated patio areas (e.g. vinyl fence in lieu of masonry walls with footings) (Stations #2–5).
- Evaluated cost of various footing construction methods trench, formed and masonry (Stations #2–5).
- Evaluated addressable fire alarm system (Stations #2–5).
- Evaluated diesel generators in lieu of Natural Gas (Stations #2–5).
- Evaluated reuse of existing generators (Stations #2–5).

# Fire Station #5

## Cost Cutting Cont

- Evaluated painting interior side of exterior block in lieu of furring & drywall (Stations #2-5).
- Evaluated brick staining (Stations #3 & 5).
- Evaluated keeping existing overhead doors & paint (Stations #3 & 5).
- Cast in place mezzanine in lieu of pre-cast planks (Stations #3 & 5).
- Delete site lighting (Stations #3 & 5) Estimate \$64,700. Combined savings for both stations.

# Construction Project Budget

Preliminary Budget Estimate from Architect	\$ 6,800,000
Scope of Changes	845,500
Construction Manager (general conditions, insurance, bond, and CM fees)	1,298,819
Architects Fee Increase Based on 7.5%	365,930
Contingency Increased	<u>354,000</u>
	\$ 9,664,249
Construction Cost Increases over 1 year?	- ? -
<b>Total Cost for Fire Stations 1-5</b>	<b>\$ 11,779,224</b>

# Construction Market Condition

## American Institute of Architects:

- Construction spending expected to increase at a healthy rate over next five years
- Construction spending expected to rise 9% from 2015 and predicted to rise 8.2% in 2016.

## Portland Cement Association

- U.S. cement consumption up 5% in 2015
- Expected to rise another 6.5% in 2016

# Construction Market Conditions

## Building Design & Construction Website Construction Spending

### CONSENSUS CONSTRUCTION FORECAST, JUNE 2015

Click on each name to see their forecast

Consensus		Actual \$ 2014	Forecast % Change	
			2015	2016
Dodge Data & Analytics	Nonresidential Total	-	8.9	8.2
IHS Economics	Commercial Total	-	12.3	10.6
	Office	-	14.7	11.7
Moody's Economy.com	Retail & Other Commercial	-	10.4	8.9
	Hotel	-	13.3	12.4
FMI	Industrial Total	-	21.9	9.9
CMD Group	Institutional Total	-	2.8	5.6
	Health	-	2.4	5.8
Associated Builders and Contractors	Education	-	1.5	5.9
	Religious	-	-5.3	1.5
Wells Fargo Securities, LLC	Public Safety	-	-1.9	2.9
	Amusement & Recreation	-	14.3	5.9

# Total Project Costs

Construction Managers Guaranteed Maximum Price (GMP)	\$10,479,069
Construction Manager Pre-Construction & Temporary Trailers	\$165,025
Additional Cost Paid by City	\$1,135,130
<b>Total Cost for Fire Stations 1-5</b>	<b>\$11,779,224</b>



# Funding Options

Option #1 General Fund Fund Balance

Option #2 Local Road Fund Fund Balance

# Questions/Discussion