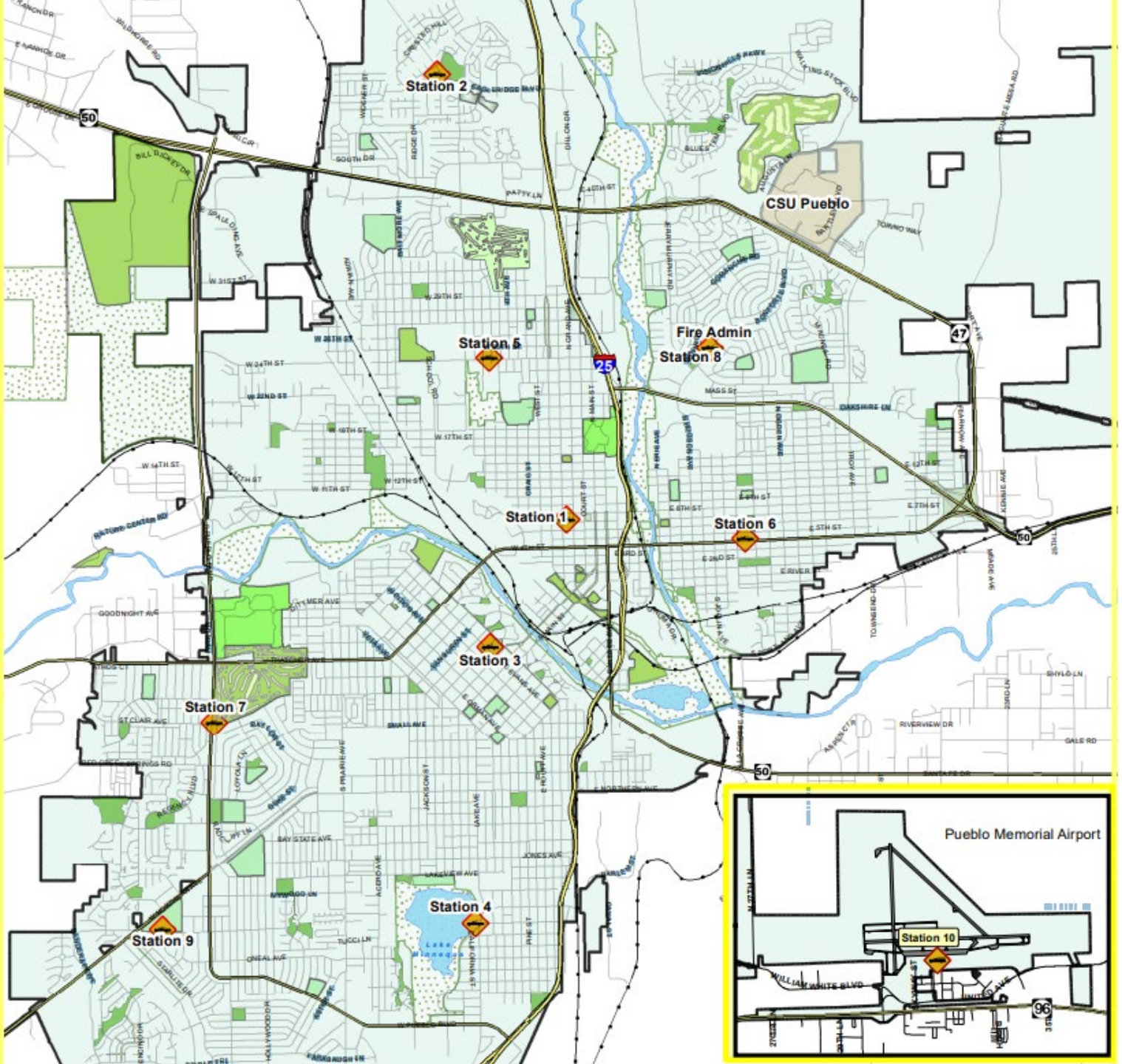
Work session 2/7/2022

Fire Station Designs

Design to Completion: Estimated Timeline

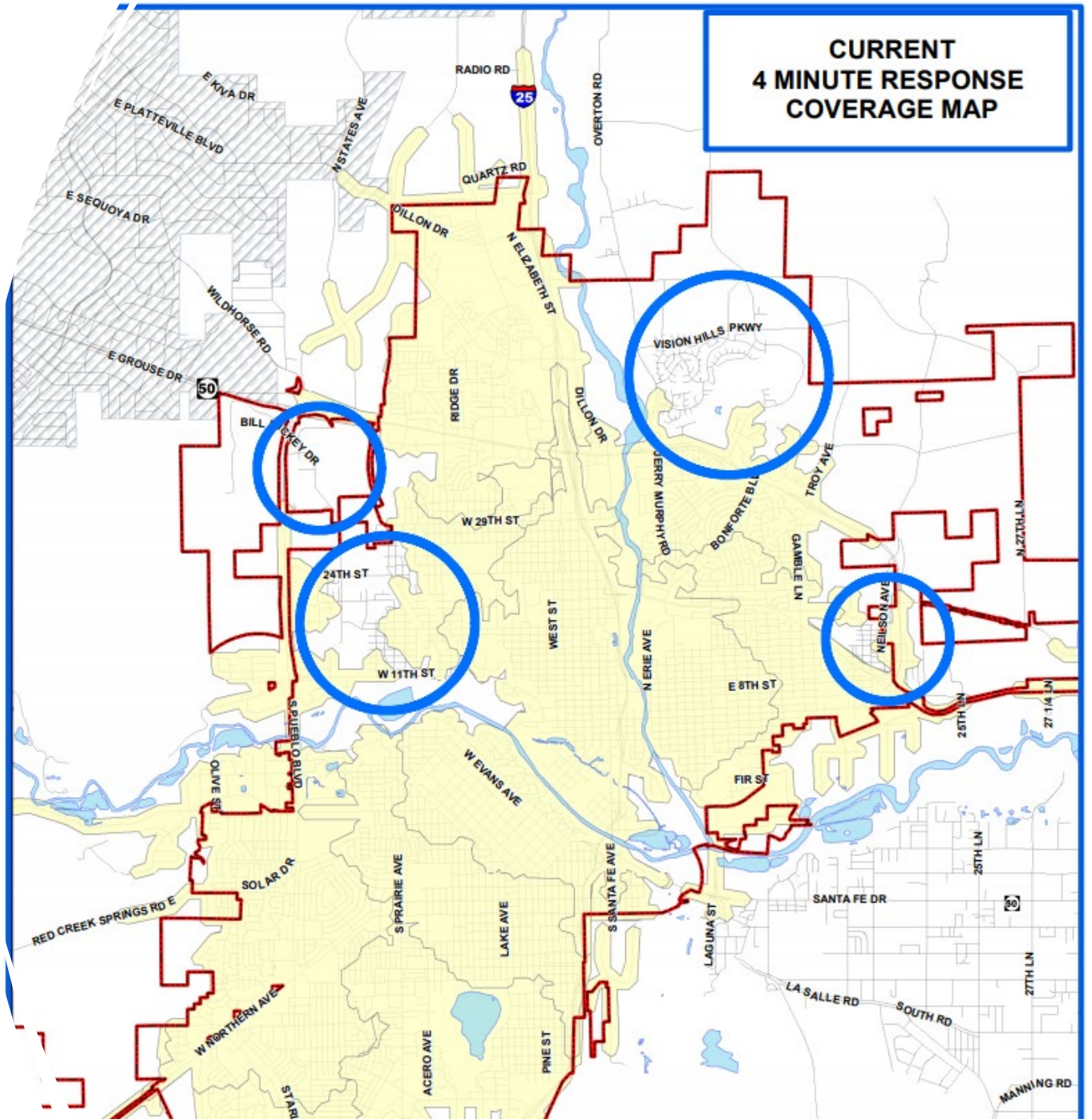
- RFP for architect: Completed March 2022
- Designs for 6,8 and 11's : complete December 2022
- Design for station 1: pending
- RFP for construction: Early 2023
- Construction Start: August 2023
- Completion goal: 2024

Map of all city fire stations currently

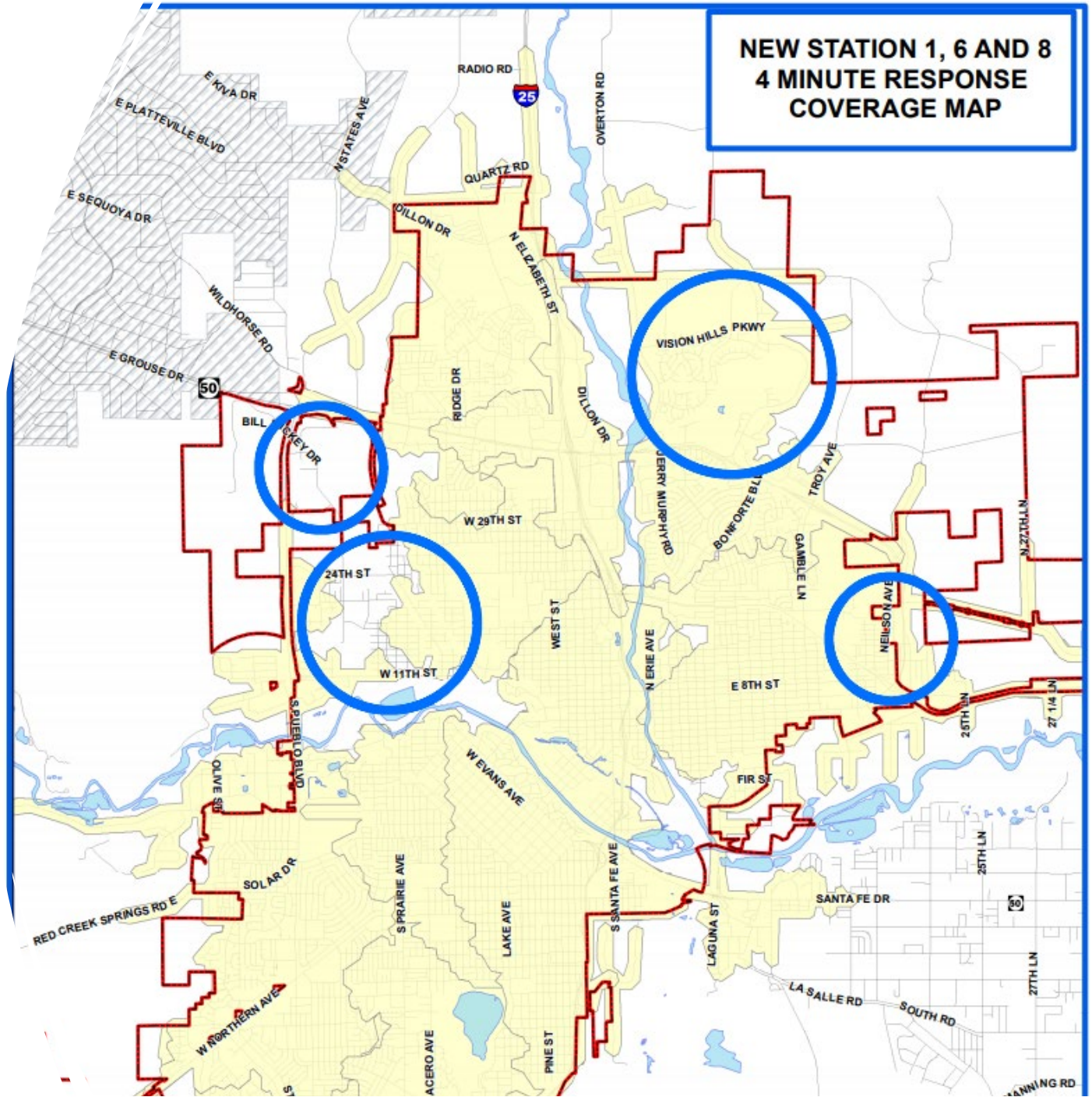


Responses Now

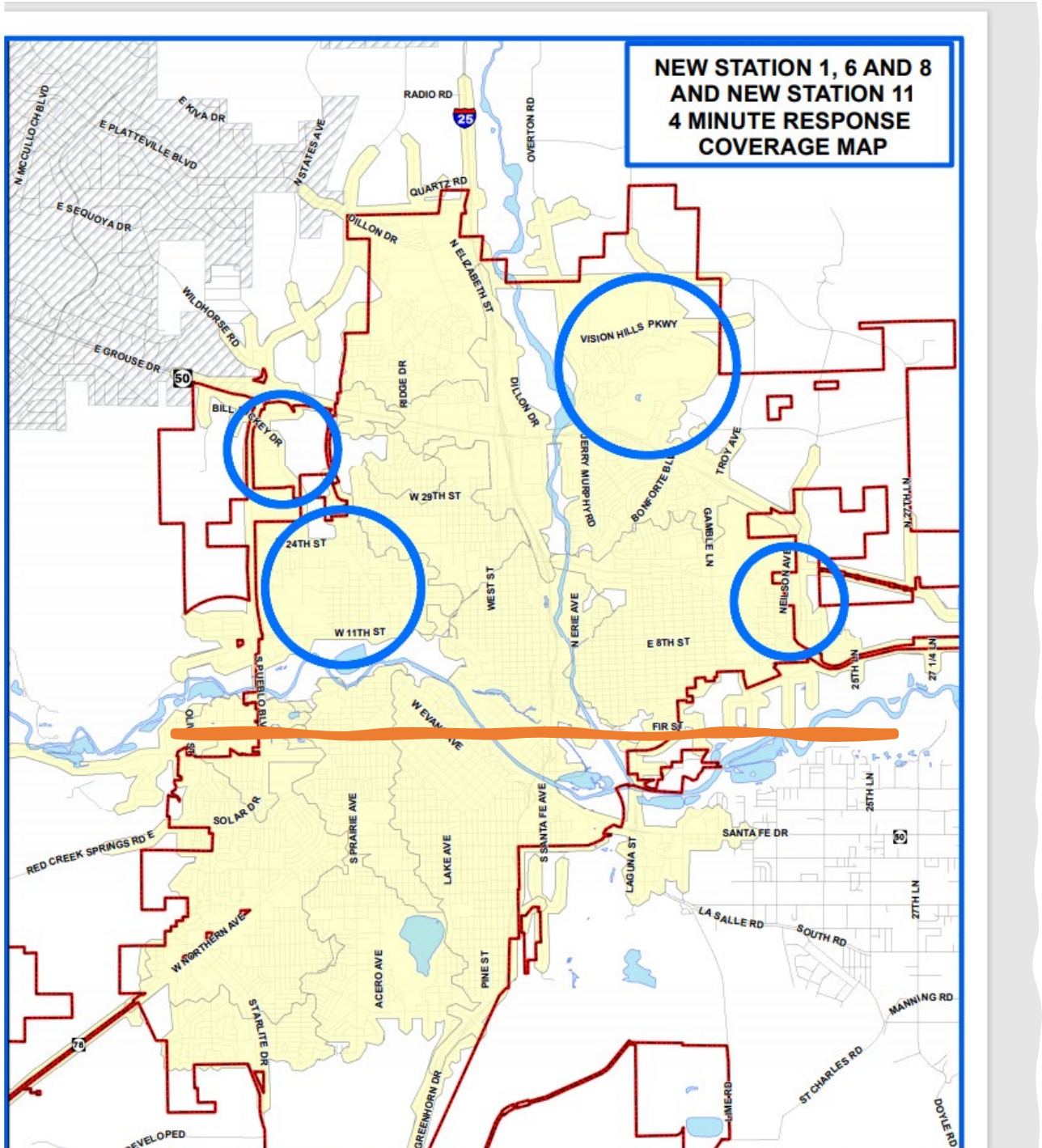
The white areas circles are greater than 4-minute response times.



Responses moving current stations



Responses with adding station 11 (4min w/in entire city)



Moving versus renovations

- Moving 3 stations: improves city coverage to within 4 minutes
- Modernization, cross staffed vehicle storage, safer configurations (drive thru) versus backing in from Hwy, apparatus size.
- Adding 11’s: needed due to annexations and population density/type, ISO.

Costs estimated in 2018

NEW and/or RENOVATED STATIONS		Hard Cost	Escalation	Soft Cost - 20%	Inflation	Contingency - 10%	Total	Year 1*	Year 2	Year 3	Year 4	Year 5	Years 6 - 10
Station #	Description												
1	New - 2022	$ 3,833,900	$ 191,700	$ 805,120	$ 20,128	$ 485,085	$ 5,335,933	$ 5,335,933	$ -	$ -	$ -	$ -	$ -
10	New - 2023	$ 3,228,400	$ 193,704	$ 684,421	$ 17,111	$ 412,364	$ 4,535,999	$ -	$ 4,535,999	$ -	$ -	$ -	$ -
6	New - 2024	$ 3,228,400	$ 161,420	$ 677,964	$ 16,949	$ 408,473	$ 4,493,206	$ -	$ -	$ 4,493,206	$ -	$ -	$ -
8	Renovate	$ 2,500,000	$ 112,500	$ 522,500	$ 13,063	$ 314,806	$ 3,462,869	$ -	$ 3,462,869	$ -	$ -	$ -	$ -
5	Renovate	$ 1,500,000	$ 90,000	$ 318,000	$ 7,950	$ 191,595	$ 2,107,545	$ -	$ -	$ -	$ 2,107,545	$ -	$ -
7	Renovate	$ 1,000,000	$ 60,000	$ 212,000	$ 5,300	$ 127,730	$ 1,405,030	$ -	$ -	$ -	$ 1,405,030	$ -	$ -
3	Renovate	$ 1,000,000	$ 60,000	$ 212,000	$ 5,300	$ 127,730	$ 1,405,030	$ -	$ -	$ -	$ 1,405,030	$ -	$ -
2	Renovate	$ 1,000,000	$ 70,000	$ 214,000	$ 5,350	$ 128,935	$ 1,418,285	$ -	$ -	$ -	$ -	$ 1,418,285	$ -

Year	Escalation %	Inflation %
1	4	2.5
2	4.5	2.5
3	5	2.5
4	6	2.5
5	7	2.5

Totals	$ 24,163,897	$ 5,335,933	$ 7,998,868	$ 4,493,206	$ 4,917,605	$ 1,418,285	$ -

Costing breakdown:

Pueblo Fire Department
Conceptual Construction Budget
New Construction
October 9, 2018

Description / Cost Category	Area		$ Cost / SF		Total
All Spaces					
1 Basic Space	5,428	SF @	$ 260	=	$ 1,411,154
2 Standard Space	2,637	SF @	$ 290	=	$ 764,776
3 Premium Space	1,159	SF @	$ 310	=	$ 359,290
Subtotal	9,224	SF	$ 275		$ 2,535,221
Subtotal Sq. Ft.	9,224 SF				$ 2,535,221
Site Work - Approximate 2 Acre Site					$ 200,000
Design Contingency @ 20%					$ 547,044
TOTAL					$ 3,282,265
Average Cost per Square Foot					$ 355.85
Construction Escalation - Not Included					$ -
Soft Cost - Not Included					$ -

Notes:

This is a conceptual Hard Cost budget and **assumes a publicly bid, wage rate, new construction project including site work** in Pueblo, CO, current date. Soft Costs such as Fixtures, Furniture and Equipment (FF&E), professional fees, testing, construction contingency and Owner's insurance, land acquisition, off-site costs are not included.
Demolition of the existing is NOT included and assumes a new buildable site.
Assume all utilities are at the site, facility will be fully sprinklered and all soil is International Code seismic classification 'C' or better.
Cost Categories: 1 Basic level of finish **2.** Office level of finish including HVAC and electric **3.** Highest level of finish including HVAC, plumbing and electric. Hybrid levels of finish are subjective. Single, commercial general contractor, bonding/insurance

Space analysis: an explaination of station space needed.

			1st Floor Area	2nd Floor Area	Area All Floors	Cost Category	1 Basic Space	2 Standard Space	3 Premium Space
		Apparatus/Training							
		2 - Double-Deep Drive Through Bays	3,121		3,121	1	3,121		
		Hose Tower	168	0	168	1	168		
		Subtotal - Apparatus/Training	**3,289**	**0**	**3,289**				
		Firematic Support							
		Mezzanine		960	960	1	960		
		Storage Room #1	100		100	1	100		
4		Storage Room #2	144		144	1	144		
5		Work Room	120		120	2		120	
6		Firematic DeCon/EMS Laundry	270		270	3			270
7		EMS Storage	48		48	1	48		
8		Air Room (SCBA)	0		0	3			0
9		Turnout Gear	140		140	2		140	
10		Hose Storage - In Bays	0		0	1	0		
11		Radio/Communication Room	0		0	2		0	
12		Walk-Off Room	48		48	1	48		
13		Unisex Rest Room for Bays	75		75	3			75
		Subtotal - Firematic Support	**945**	**960**	**1,905**				
		Firefighters/EMT's							
14		Firefighter's/EMT Day Room	200		200	2		200	
15		Kitchen	200		200	3			200
16		Dining	120		120	2		120	
17		Exercise/Fitness	400		400	2		400	
18		Private Entry	30		30	2		30	
		Subtotal - Firefighters/EMT's	**950**	**0**	**950**				
		Bunking							
19		4 - Bunk Rooms @ 250/room	1,000		1,000	2		1,000	
20		2 - Bath/Showers @ 100/bath	200		200	3			200
		Subtotal - Bunking	**1,200**	**0**	**1,200**				
		Administration							
21	**	Training Room - Station #1 Only (650 sq. ft.)	0		0	2		0	
22	**	Training Room Storage - Station #1 Only (100 sq. ft.)	0		0	2		0	
23		Office #1	120		120	2		120	
24		Network/IT	48		48	3			48
25		M & W Restrooms - Station #1 Only (360 sq. ft.)	150		150	3			150
		Subtotal - Administration	**318**	**0**	**318**				
		Public/Miscellaneous Space							
26		Public Entry	64		64	2		64	
27		Janitor Closet	48		48	3			48
28		Mechanical/Electrical Room	168		168	3			168
		Subtotal - Public/Miscellaneous	**280**	**0**	**280**				
		Circulation	443		443	2		443	
		Walls	743	96	839	1	839		
		Subtotal - Miscellaneous	**1,186**	**96**	**1,282**		**5,428**	**2,637**	**1,159**

** Station #1 Only - Add 1,110 sq. ft. + Circulation + walls =

Station design and minimizing cancer

Reducing exposures in the Fire Station

FACT SHEET: Cancer Risk in Firefighting *(continued)*

Minimizing Contaminant Exposure and Risk

Fire service organizations and individual fire departments have become increasingly aware of the health and safety hazards posed by contaminant exposure, and have been working to educate the fire service about ways to reduce those risks.

At the Fire Protection Research Foundation – the research affiliate of the National Fire Protection Association (NFPA) - three major initiatives are under way to address fire fighter exposure to contaminants on the fireground and beyond:

How Clean is Clean: While general PPE cleaning procedures have evolved as best practices, scientifically established methods for removing toxic chemicals, biological pathogens and other hazardous substances from PPE is lacking. "Validation of Cleaning Procedures for Fire Fighter PPE" (a three-year study due in late 2018) works to identify the contaminants found on PPE and the disinfection/sanitization procedures required to remove them.
(See nfpa.org/ppecleaning)

Contamination Control and Beyond: It's quickly becoming recognized that contaminants found on fire fighter PPE are also present far from the fire ground: on hand tools, fire hose, apparatus, stations, and beyond - sometimes even into private vehicles and the homes of fire fighters. The "Campaign for Fire Service Contamination Control" (a one year- study due in late 2017) aims to educate the fire service about the health and safety risks of contaminant exposure in all these locations, and to provide steps for controlling contaminants' spread. Go to nfpa.org/contamination for more information.

Long-term Cancer Study: Medical doctors and others don't fully understand which exposures are responsible for cancer in fire fighters, the mechanisms by which exposures cause cancer, nor the most effective means of reducing exposures. The "Fire Fighter Cancer Cohort Study" is a long-term (30-year) information collection effort led by the University of Arizona to fully address these questions. Updates will be provided at intervals throughout the study's duration. Go to www.ffccs.org for more information.

Cost effective measures of mitigation already in place:

- The following has been done to mitigate some challenges:
  - SOP's implemented regarding fire gear cleaning, fire scene decontamination and wearing of proper gear for call type.
  - Ward No-Smoke filters on all vehicles to capture emissions.
  - Exhaust capture at every fire station.
  - Privacy spaces created in each station for response changes to PPE use.
  - Purchase and installation of additional extractor (grant funded) put in service on the north side for more availability.
  - Purchased (grant) 2 SCBA washers North and South to decrease exposure to carcinogens in apparatus cabs (clean cabs).

Questions