



Davidson IB School Preservation/Adaptive Reuse Study: Phase 2

May 22, 2018

CREECH & ASSOCIATES



EDIFICE
GENERAL CONTRACTORS
The Art and Science of Construction

Typical Male Restroom



Abandoned Services on Flat Roof



Main Mechanical/Electrical Room



PROS

- Condition of masonry veneer
- Condition of roof
- General structure in excellent condition
- Stairs appear to be code compliant

CONS

- Hazardous Materials
- No accessible points of entry
- Insufficient amount of restrooms
- Mechanical system not usable
- Plumbing fixtures not usable
- Exterior routed electrical conduit

RECOMMENDATIONS

- New restroom addition adjacent to building
- New elevator
- Window repair or replacement
- No accessible points of entry
- New VRF mechanical system
- New backflow preventer
- New electrical service and panels

Foundation Repair Front Wall



Floor Structure Repair



Boiler Room



Settlement at Top of Column



PROS

- Condition of sub floor
- New roof

CONS

- Partially compromised structural condition
- Condition of windows
- Condition of gym floor
- No usable restrooms
- No accessible points of entry
- No air conditioning
- Damaged water line: no service to building

RECOMMENDATIONS

- *Further structural investigation and repairs*
- New restroom addition adjacent to building
- Window repair or replacement
- Finish floor replacement
- New air conditioning system
- New electrical service, panels, and distribution

2016 STAFF GROWTH PROJECTIONS

Police Department					
Forecast Data 2013-2017		2005	2017	Annual Change	
				Number	%
Historic Staff		18	21	0.23	1.10%
Forecast Model	Value	2022	2027	2032	2037
1: Historic Staff 13 yr Number Increase	0.23	22	23	24	26
2: Historic Staff 13 yr Percentage Increase	1.10%	22	23	25	26
3: OSBM 5 yr Percentage Increase	2.66%	24	27	31	36
4: U.S. Census 5 yr Percentage Increase	1.94%	23	25	28	31
5: U.S. Census 10 yr Percentage Increase	4.70%	26	33	42	53
6: Solid Waste 10 yr Percentage Increase	3.43%	25	29	35	41
7: Commercial Building Permits 1 yr Percentage Increase	-100.00%	0	0	0	0
8: Residential Building Permits 1 yr Percentage Increase	7.56%	30	44	63	90
9: Citizen Initiated Calls for Service 6 yr Percentage Increase	1.60%	23	25	27	29
10: Police Services Personnel: 24 per 10,000 population		37	43	50	57
11: Staff Projections		27	40	50	57
Average (Items 1-6 and 8-11)		26	31	37	44
Recommended Model: Average		26	31	37	44

METRICS

Existing Area	10,000 SF
Proposed Addition	800 SF
Total Proposed Area	10,800 SF
Proposed Covered Area	900 SF

CONCEPT DIAGRAM OF ADDITION



2016 PROGRAM SUMMARY WITH 20 YEAR GROWTH

Department	Current Existing Area (NUSF)	In-House Estimated Area (NUSF)	Current Projected Area (NUSF)	Future Projected Area (NUSF)
Law Enforcement				
Administration	501	-	1,648	1,934
Criminal Investigations	1,000	-	4,649	5,312
Field Operations Division	142	-	1,633	1,828
Building Support	219	-	3,895	3,895
Total Net Usable Square Feet (NUSF)	1,862	-	11,825	12,969
35% Core Service (Sqft)	-	-	4,139	4,539
TOTAL LAW ENFORCEMENT (GSF)	3,000	20,000-25,000	15,963	17,508
*additional 1,716 SF in shared spaces in town hall for training and fitness, totaling 19,224 SF of area for police use				
Additional Support Spaces	Current Existing Area (GSF)		Current Required Area (GSF)	Future Required Area (GSF)
Exterior Area				
Sally Port Bay	0	-	600	600
Shower	0	-	5	5

SUMMARY

- Confirmed estimated growth of department of 44
- Increase large evidence storage in Sally Port
- Partial open air cover over Sally Port

The PD feels comfortable they can function well for 20 years in this space

Fire Department 20 Year Plan

2016 STAFF GROWTH PROJECTIONS

Fire Department					
Forecast Data 2016-Current Planning		2017	2037	Annual Change	
				Number	%
Current Full-Time Staff (includes Fire Chief)		7	12	0.25	2.08%
Current Part-Time Staff		60	90	1.50	1.67%
Forecast Model	Value	2022	2027	2032	2037
1: Actual 10 yr Number Increase (Not Provided)	0.00	0	0	0	0
2: Actual 10 yr Percentage Increase (Not Provided)	0.00%	0	0	0	0
3: OSBM 5 yr Percentage Increase	2.66%	8	9	10	12
4: U.S. Census 5 yr Percentage Increase	1.94%	8	8	9	10
5: U.S. Census 10 yr Percentage Increase	4.70%	9	11	14	18
6: Solid Waste 10 yr Percentage Increase	3.43%	8	10	12	14
7: Commercial Building Permits 1 yr Percentage Increase	-100.00%	0	0	0	0
8: Residential Building Permits 1 yr Percentage Increase	7.56%	9	13	19	28
9: Calls for Service 1 yr Percentage Increase	3.19%	8	10	11	13
10: Staff Projections		8	9	10	12
Average (Items 3-6 and 8-10)		8	10	12	15
Recommended Model: Staff Projection		8	9	10	12

2016 PROGRAM SUMMARY WITH 20 YEAR GROWTH

Department	Current Existing Area (NUSF)	In-House Estimated Area (NUSF)	Current Needed Area (NUSF)	Modeled Area (NUSF)
Fire and Rescue				
Administration and Training	150	-	1,328	1,658
Residential and Living	1,007	-	3,483	3,483
Apparatus and Support	4,155	-	6,488	6,488
Total Net Usable Square Feet (NUSF)	5,312	-	11,299	11,629
30% Core Service (SF) (excludes apparatus bay)	-	-	1,950	2,029
TOTAL FIRE STATION 1 (GSF)	6,000	15,546	13,249	13,678

SUMMARY

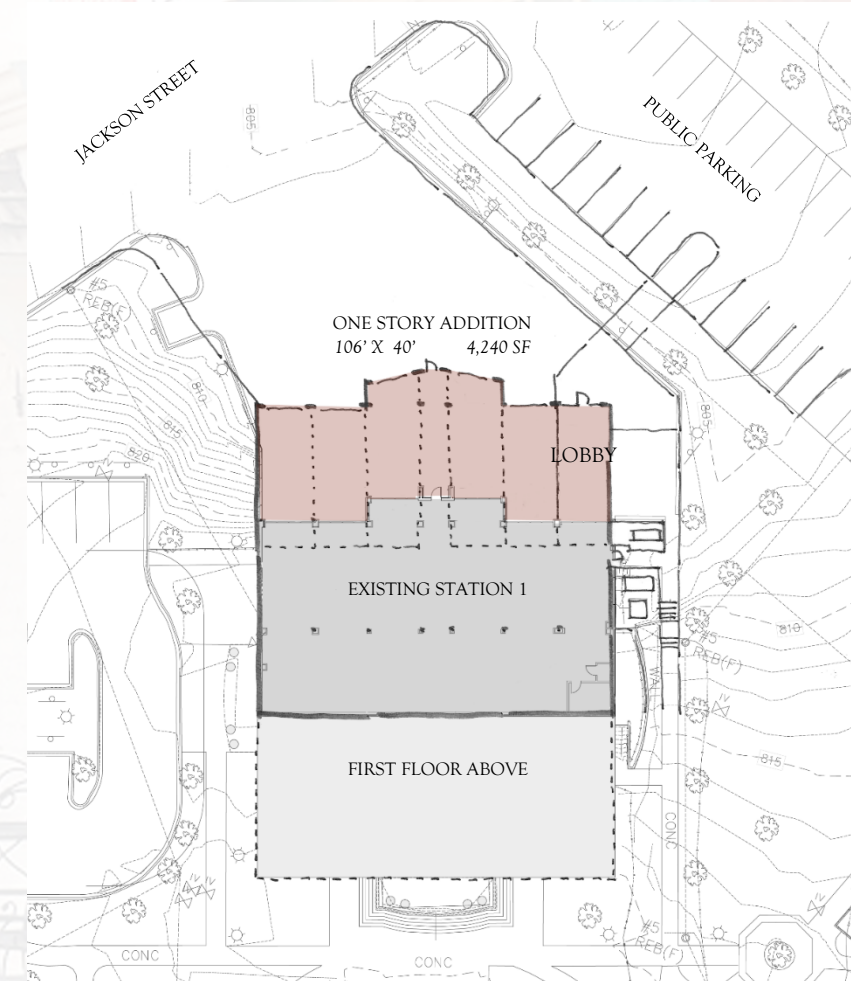
- Confirmed estimated full time staff growth to 12
- Confirmed growth to staffing two 4-person companies
- Confirmed 5 apparatus bays in service

METRICS

Existing Area	6,000 SF
Proposed Addition	4,240 SF
Total Proposed Area*	10,240 SF
Shared Space in PD	1,222 SF
Total Usable Area	11,462 SF

*Space was planned for a potential expansion of new Fire Station 2 that could be used for training functions to complete the 20 year space needs if required

CONCEPT DIAGRAM OF ADDITION



The FD feels comfortable they can function well for 20 years in this space

- Tonight Creech and Associates present results of Phase II: mechanical/structural assessments for board information.
- June 12, 2018 Creech/Edifice present preliminary cost estimate for renovation of IB School and gym, and enlarged renovation of existing town hall.

Board considers adoption of three resolutions for GO Bond referendum. (These resolutions are not a final decision on GO Bonds, just advance work in case the board approves the referendum in August)

Citizen Engagement Opportunities – We Want to Hear from You

- Email us at PublicFacilities@townofdavidson.org
- Public comment period at June 5, 12, July 10, and future meetings

Depending on the direction from the Board of Commissioners after June 12 meeting:

- Open Town Hall question (www.townofdavidson.org/OpenTownHall)
- Table at Davidson Farmers' Market on June 16 & 30
- Public comment period at July 10 meeting (and future meetings)
- Ice cream social/Public input session at former IB School: July 14 from 2-4 pm
- Special meeting for public hearing: July 24
- Vote on referendum: November 13

...Thank you