

Task #4 – Final Report Presentation

### **Grafton County**

Courthouse Building June 24, 2025

## AGENDA

- » Introduction
- » Existing Conditions
- » Space Program
- » Conceptual Design
- » Conceptual Budget
- » Conclusion

## Introduction

### **Grafton County**



#### **COURTHOUSE REPLACEMENT STUDY**

3785 Dartmouth College Highway, North Haverhill, NH 03774

June 12, 2025

LAVALLEE BRENSINGER ARCHITECTS









#### Introduction

In 2024, Grafton County, New Hampshire retained Lavallee Brensinger Architects to study the replacement of their existing courthouse, as recommended in the 2021 Assessment of this facility by EHDanson Associates. This study began by assessing the county's spatial and operational needs, utilizing questionnaires and meetings for each department to be located in the proposed courthouse. These needs were then tabulated in a space program, "cost-loaded" benchmarked on similar project types, and "right-sized" with the Courthouse Building Committee. Once this program was approved, options for site design, building layout, and exterior design were developed and reviewed. Ultimately, a single option was chosen to reflect a cost-effective, secure, and contextually appropriate design, and a detailed total project budget estimate is provided for that option.

#### **Existing Conditions Review**

The existing courthouse must remain operational during construction, the new courthouse must remain as close as possible to the Department of Corrections, and the public entrance must be clear and visible from the road. The Courthouse Building Committee and the design team determined the location of the existing courthouse's parking lot balances these important criteria-effectively. Based on this information, a survey and a geotechnical report were developed for this area, and conceptual designs are based on the information gathered.

#### **Operations & Program Validation**

The proposed building includes spaces from the following: the Grafton County Sheriff's Office, Dispatch & Communications, NH DOC Probation & Parole, the Grafton County Bar Association, the Grafton County Attorney's Office, the Grafton County Register of Deeds, the Grafton County Maintenance Department, the NH DMV, and the NH Judicial Branch. Department representatives filled out a questionnaire and participated in meetings to review their current and projected needs. During this process, Lavallee Brensinger Architects and the Courthouse Building Committee challenged each department to use contemporary best practices such as dedicated prisoner paths, and to explore cost-savings opportunities such as sharing spaces. The information gathered from these questionnaires and meetings was used to develop the tabulated program included in this study.

#### Conceptual Design

The information gathered in the Existing Conditions Review and Operations and Program Validation was utilized to create conceptual design options. These included site design, interior layout, and exterior design options. This study concludes with a single conceptual design as selected for conceptual level cost budgeting.

The selected conceptual site design was driven, in a large part, by how the defendants travel from the Department of Corrections to the secure corridors in the proposed courthouse. The initial conceptual site options assumed a direct physical connection to the existing Department of Corrections. In all these options, a long tunnel was the only secure approach, which was determined to be cost-prohibitive. As a result, several options were developed without a direct connection to the Department of Corrections. The concept chosen has defendants entering on the first-floor level, which avoids tunnels or grading down to a basement level sally port.

Departmental block diagrams were developed to show how the interior layout would work for each conceptual site option, with the prisoner's procession highlighted. Once the preferred site option was chosen, a space plan was developed for this option, and diagrams were developed to show each department, the processions of each user type, and interior isometric renderings showing possible furniture layouts. These conceptual interior layouts were then reviewed with all departments and revisions were made based on comments prior to being approved by the Courthouse Building Committee.

The conceptual exterior design began with a character session outlining the existing materials used in the Grafton Municipal Complex, reviewing recent state and national courthouses, and identifying what imagery is desired (and not) for the proposed building. Lavallee Brensinger Architects then presented three different strategies for the building massing, or shape, of the proposed courthouse and County offices. Based on input from the Courthouse Building Committee on the desired shape and preferred materials, a conceptual exterior design was then presented as a virtual exterior walkthrough, and revisions were based on comments before the design was approved.

As these concepts were developed, a Basis of Design was also developed to expand on the types of systems and assemblies assumed for the proposed courthouse, including Civil, Structural, Architectural, Plumbing, Mechanical, and Electrical Systems. The Courthouse Building Committee reviewed this tabulated document, and revisions were incorporated. Together, these conceptual documents were sent to the estimator for conceptual level cost budgeting.

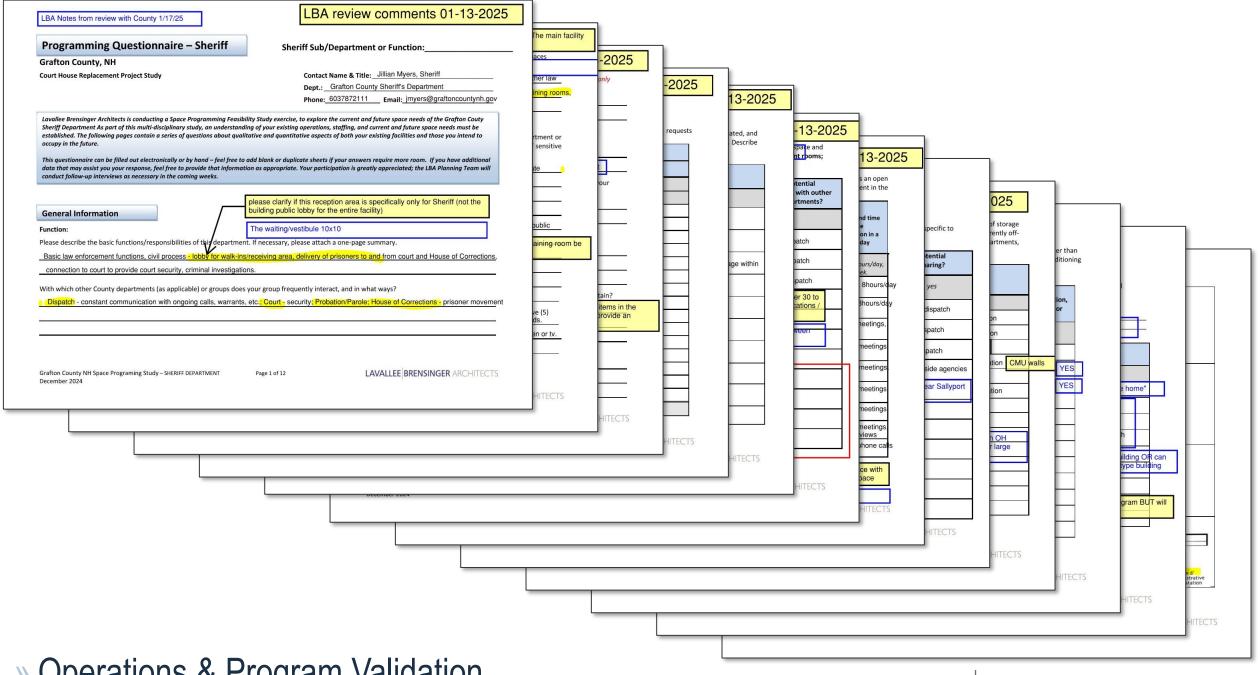
#### Conclusion

To meet the projected 2045 needs of the departments included in this study, Lavallee Brensinger Architects recommends a 64,668 gross square foot new building to replace the existing Grafton County Courthouse. Based on projected construction in the third quarter of 2026, the probable construction cost of this project is \$47,383,337. Lavallee Brensinger Architects thanks the Courthouse Building Committee, the representatives from each department, the Grafton County Commissioners, and, of course, the members of the Grafton County community who contributed to this study. We look forward to the opportunity to work with Grafton County when this important project is approved to move forward.

## **Existing Conditions**



# Space Program



	Space Designation		Space N	Need			Probable Cons	struction Cos	st	
No.	Function	2025 (current need)	2035	2045	Right Size	Low \$/SF	Low\$	High \$/SF	High \$	Notes
Α	COMMON SPACES									
A-1	Public Spaces	3,035	3,035	3,035	3,275	440.00	1,441,000.00	460.00	1,506,500.00	
A-2	Support Spaces	288	288	288	288	440.00	126,720.00	460.00	132,480.00	Majority of spaces represented in I-4.
A-3	Circulation Spaces	2,040	2,040	2,040	2,040	440.00	897,600.00	460.00	938,400.00	
	SUBTOTAL	5,363	5,363	5,363	5,603		2,465,320.00		2,577,380.00	
						4				
В	GRAFTON COUNTY SHERIFF OFFICE									
B-1	Work Spaces	1,236	2,032	2,744	1,876	525.00	984,900.00	550.00	1,031,800.00	
B-2	Support Spaces	1,778	1,778	1,778	1,153	525.00	605,325.00	550.00	634,150.00	
B-3	Storage Spaces	808	808	808	520	525.00	273,000.00	550.00	286,000.00	
B-4	Shared Spaces	3,399	3,399	3,399	2,903	525.00	1,524,075.00	550.00	1,596,650.00	
	SUBTOTAL	7,221	8,017	8,729	6,452		3,387,300.00		3,548,600.00	This program must be IBC Category IV.
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С	GRAFTON COUNTY DISPATCH AND COMMUNICAT	BUT DAY OF CORP.								
C-1	Work Spaces	1,116	1,116	1,116		525.00	573,300.00	550.00	600,600.00	
C-2	Support Spaces	200	200	200	200	525.00	105,000.00	550.00	110,000.00	
C-3	Storage Spaces	200	200	200	200	525.00	105,000.00	550.00	110,000.00	
C-4	Shared Resources	0	0	0	0	525.00	0.00	550.00		Spaces represented in B-4.
	SUBTOTAL	1,516	1,516	1,516	1,492		783,300.00		820,600.00	This program must be IBC Category IV.
										***************************************
D	NH PROBATION AND PAROLE									
D-1	Work Spaces	872	1,192	1,312		440.00	484,000.00	460.00	506,000.00	
D-2	Support Spaces	790	790	790	720	440.00	316,800.00	460.00	331,200.00	
D-3	Storage Spaces	154	154	154	124	440.00	54,560.00	460.00	57,040.00	
	SUBTOTAL	1,816	2,136	2,256	1,944		855,360.00		894,240.00	
				49		_				
E	GRAFTON COUNTY BAR ASSOCIATION						-			
E-1	Work Spaces	450	450	450		440.00	176,000.00	460.00	184,000.00	
E-2	Support Spaces	218	218	218	118	440.00	51,920.00	460.00	54,280.00	
	SUBTOTAL	668	668	668	518		227,920.00		238,280.00	

	Space Designation		Space N	Need			Probable Con	struction Co	ct	
	Space Designation		Space I	1eeu			FIODADIE COII	struction Co	JL .	
No.	Function	2025 (current need)	2035	2045	Right Size	Low \$/SF	Low \$	High \$/SF	High \$	Notes
F	GRAFTON COUNTY ATTORNEY'S OFFICE									
F-1	Work Spaces	2,752	3,854	4,134	3,560	440.00	1,566,400.00	460.00	1,637,600.00	
F-2	Support Spaces	592	592	592	232	440.00	102,080.00	460.00	106,720.00	
F-3	Storage Spaces	920	920	920	600	440.00	264,000.00	460.00	276,000.00	
F-4	Shared Spaces	788	788	788	788	440.00	346,720.00	460.00	362,480.00	
	SUBTOTAL	5,052	6,154	6,434	5,180		2,279,200.00		2,382,800.00	
G	NH JUDICIAL BRANCH									
G-1	Public Spaces	2,643	2,643	2,643	2,643	525.00	1,387,575.00	550.00	1,453,650.00	
G-1	Work Spaces	6,778	6,858	6,858	6,423	525.00	3,372,075.00	550.00	3,532,650.00	
G-2	Courtroom Spaces	6,640	6,640	6,640	6,266	525.00	3,289,650.00	550.00	3,446,300.00	
G-4	Detention Spaces	370	370	370	370	525.00	194,250.00	550.00	203,500.00	
G-4	Support Spaces	240	240	240	240	525.00	126,000.00	550.00	132,000.00	
G-6	Circulation Spaces	320	320	320	320	525.00	168,000.00	550.00	176,000.00	
G-0	SUBTOTAL	16,991	17,071	17.071	16,262	323.00	8,537,550.00	330.00	8,944,100.00	
		10,551	27,072	27,07.2	20,202		0,007,000.00		0,5 . 1,200.00	
Н	NH DMV									
H-1	Work Spaces	420	540	540	420	440.00	184,800.00	460.00	193,200.00	
H-2	Support Spaces	324	324	324	100	440.00	44,000.00	460.00	46,000.00	
H-3	Storage Spaces	100	100	100	100	440.00	44,000.00	460.00	46,000.00	
H-4	Shared Spaces	164	164	164	164	440.00	72,160.00	460.00	75,440.00	
	SUBTOTAL	1,008	1,128	1,128	784		344,960.00		360,640.00	
	GRAFTON COUNTY MAINTENANCE									
I-1	Work Spaces	300	300	300	300	440.00	132,000.00	460.00	138,000.00	
1-2	Support Spaces	528	528	528	528	440.00	232,320.00	460.00	242,880.00	
1-3	Storage Spaces	120	120	120	120	440.00	52,800.00	460.00	55,200.00	
1-4	Shared Spaces	4,676	4.676	4.676	4,676	440.00	2,057,440.00	460.00	2,150,960.00	
	SUBTOTAL	5,624	5,624	5,624	5,624	440.00	2,474,560.00	400.00	2,587,040.00	
J	GRAFTON COUNTY REGISTER OF DEEDS									
J-1	Work Spaces	828	828	828	828	440.00	364,320.00	460.00	380,880.00	
J-2	Support Spaces	1,100	1,100	1,100	1,100	440.00	484,000.00	460.00	506,000.00	
J-3	Storage Spaces	1,950	1,950	1,950	1,950	440.00	858,000.00	460.00	897,000.00	
J-4	Shared Spaces	274	274	274	274	440.00	120,560.00	460.00	126,040.00	
	SUBTOTAL	4,152	4,152	4,152	4,152		1,826,880.00		1,909,920.00	

	Space Designation		Space f	Need			Probable Con	struction Co	st	
No.	Function	2025 (current need)	2035	2045	Right Size	Low \$/SF	Low\$	High \$/SF	High \$	Notes
	TOTAL ALL PROGRAMS	49,411	51,829	52,941	48,011		23,182,350.00		24,263,600.00	
					8					
	Efficiency Factor 30%	14,823	15,549	15,882	14,403	440.00	6,337,452.00	460.00	6,625,518.00	
	TOTAL BUILDING	64,234	67,378	68,823	62,414		29,519,802.00		30,889,118.00	
	DEMOLITION OF EXISTING BUILDING	48,659	48,659	48,659	48,659	16.44	800,000.00	19.52	950,000.00	
0										
	SITEWORK						3,000,000.00		3,700,000.00	
10										
	UNDERGROUND PRISONER TUNNEL	3,500	3,500	3,500	3,500	200.00	0.00	250.00	0.00	Removed, per Grafton County meeting on 4/1/2025
(3)										
	PRE-ENGINEERED VEHICLE STORAGE FACILITY	2,680	2,680	2,680	2,680	160.00	428,800.00	180.00	482,400.00	Based on preferred layout developed by Grafton County CBC.
	STATEMENT OF PROBABLE CONSTRUCTION COST						33,748,602.00		36,021,518.00	

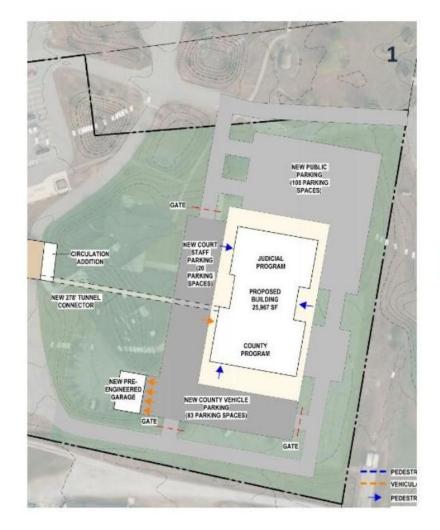
#### **General Notes**

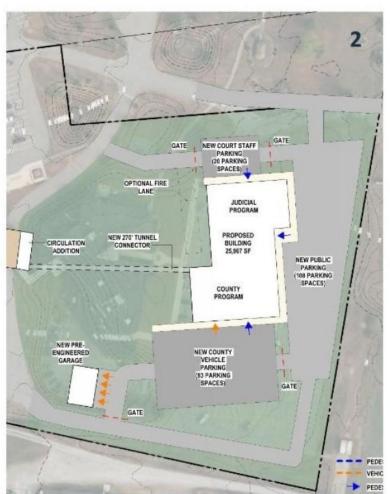
- 1 The probable construction costs projected above assume a two-story building with a partial basement.
- 2 The probable construction costs projected above do not include soft costs (permitting fees, design fees, testing fees, furniture, fixtures, equipment, technology, security, etc...).
- 3 The probable construction costs projected above are indexed for the third quarter of 2026. Beyond that time, escalation is projected to be 5% per annum.
- The probable construction costs projected above do not include abatement of the existing building to be demolished. North Ridge Contracting has stated a probable abatement cost of \$347,830. If the demolition of the existing court house building may not take place until late 2027/2028 please add 15% to 18% escalation to this number to address cost escalation over 2.5 to 3 years. Escalation would increase the projected cost to the range of \$400,000 to \$417,000. Lavallee Brensinger Architects is providing this information as an accommodation to the County. North Ridge Contracting is an independent company and is not under contract or working under the direction or contractual umbrella of Lavallee Brensinger Architects. We recommend the County consider retaining an Environmental Consultant to assist further with addressing the project's environmental abatement scope and cost.
- 5 The probable construction costs projected above are benchmarked on recent projects of similar program and scope.
- 6 The probable construction costs projected above are based on NH Energy Code. Meeting more stringent efficiency standards is not included.
- 7 The probable construction costs above are based on information gathered during the programming phase only. Costs will be updated once a current field survey and geotechnical investigation are received and a conceptual building design is complete.
- 8 The probable construction costs above are based on the "Right Size" column.

	PUBLIC PARKING		SECURED PARK	ING	<b>BUILDING PROGRAM</b>		
DEPARTMENT	VISITORS	COUNTY VEHICLE (OPEN)	COURT STAFF	COUNTY VEHICLE (ENCLOSED)	COUNTY VEHICLE (SALLYPORT)	TOTAL	NOTES
Grafton County Sheriff's Office		28		1	2	29	
Communications and Dispatch		11		2		13	
Probation and Parole		14				14	
NH Courts	80		20			100	
Grafton County Bar Association	20					20	
Grafton County Attorney's Office		21				21	
Grafton County Maintenance Department		5		1		6	
Register of Deeds	6	6				12	
NH DMV	8	4				12	
TOTAL PARKING NEED	114	89	20	4	< <u>*</u>		Sallyport is part of building program, and not counted towards total site parking needs.

			EQI	JIPMENT LIST			
DEPARTMENT	TYPE	NUMBER	SIZE (LxWxH)	COVERED/ENCLOSED		SECURED	NOTES
Sheriff	Patrol	16		no		Yes	Large SUV
Sheriff	Sallyport	1	20x12x6	Enclosed		Yes	F-150s and Tahoes + space for walking and washing.
Sheriff	Transport	1	28x12x9	Enclosed		Yes	26' Bus. Provide 14x14 overhead door.
Dispatch	Communications Truck	1	24x7x9	Enclosed		Yes	3/4 ton crew cab truck. Provide 14x14 overhead door.
Dispatch	Communications Trailer	1	28x9x12	Enclosed		Yes	26' enclosed trailer. In tandem with Communications Truck. Provide 14x14 overhead door.
Sheriff	Court Security	10		no		Yes	Full-size trucks
Sheriff	Admin. Staff	2		no		Yes	Mid-sized car
Dispatch	Dispatch Staff	10		no		Yes	Mid-sized car
Courts	Judges/clerks	25		no	Ŷ	Yes	Mid-sized car
Dispatch	Communications Car	1		no	- 3	yes	Mid-sized car
County Attorney	County Car	1		no		yes	Mid-sized car
County Attorney	Personal Vehicles	20				ideally	20-25 spaces ideally located in secured parking lot
Maintenance	Department Vehicle	2		no		yes	Pickup Truck
Maintenance	Staff Personal Vehicles	3		no		yes	cars/pickup trucks
Courts	Jury Personal Vehicles	80		no		no	Mid-sized car
DMV	Staff Personal Vehicles	4		no		ideally	Mid-sized car
DMV	Customer Personal Vehicles	8		no		no	Mid-sized car
Bar Association	Personal Vehicles	20		no		no	mid-sized car
Probation and Parole	Staff Personal Vehicles	10		no		Yes	Mid-sized car
Probation and Parole	State Car	4		no		Yes	Ford Explorer
Maintenance	Grounds Storage	1		Enclosed		Yes	Used for grounds equipment, ice melt, fuel polishing, flammable locker, fuel spill kit, and space for one vehicle. Exterior access from secure parking area by overhead door. Space for cruiser parts, cleaning supplies, and tires.
Register of Deeds	POV	6		no	3	Yes	Mid-sized car
Register of Deeds	Customer Vehicles	6		no			Mid-sized car

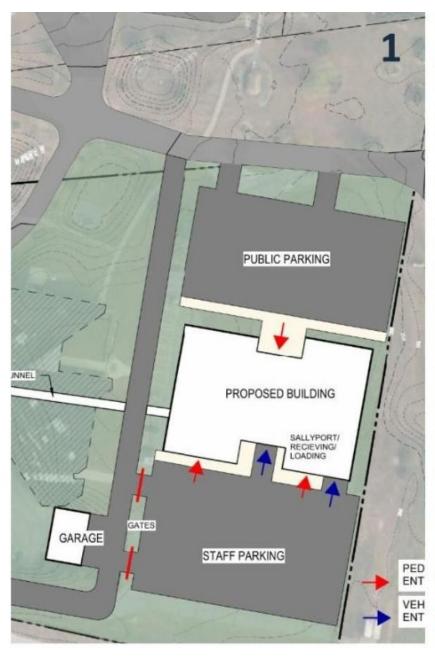
# Conceptual Design

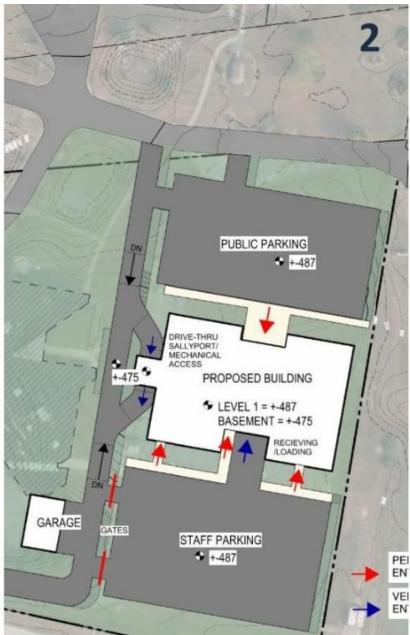


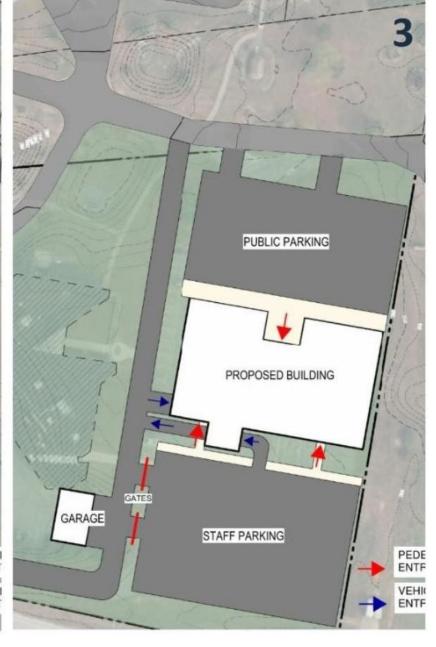




	Potential Phasing (# steps)	Area of Paving (sf)	Perimeter to Secure (ft)	<b>Entrance Presence</b>	Daylighting & Views	Tunnel Length (ft)	Green Space Access
OPTION 1	5	110,092	813	2	2	278	3
<b>OPTION 2</b>	4	98,748	809	3	3	270	1
OPTION 3	3 to 4	96,243	777	1	1	278 to 311	2



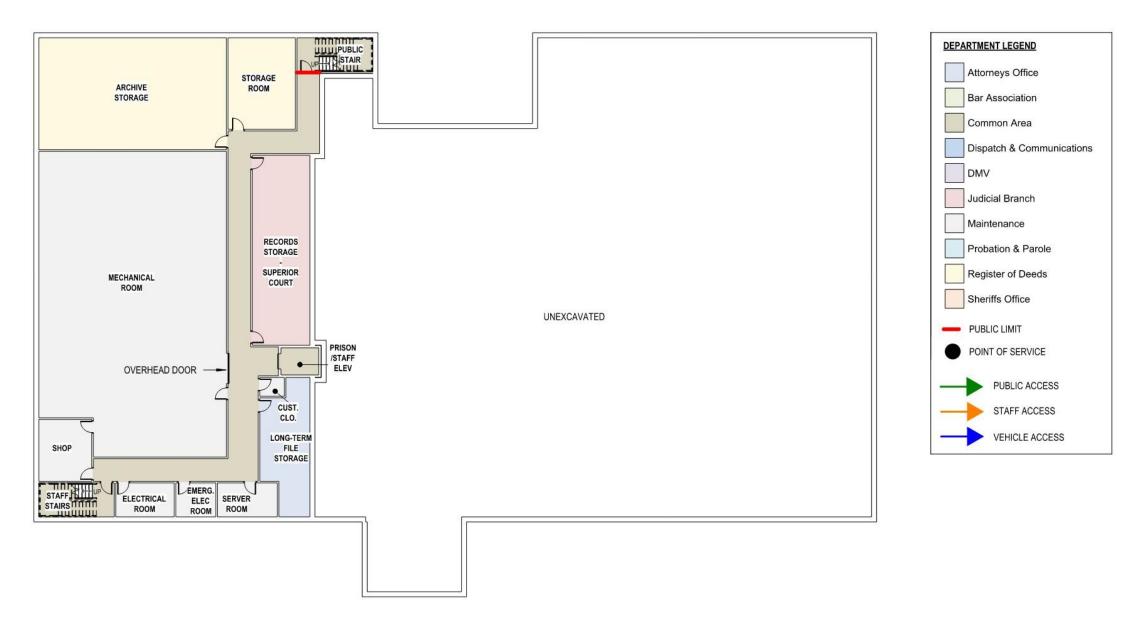


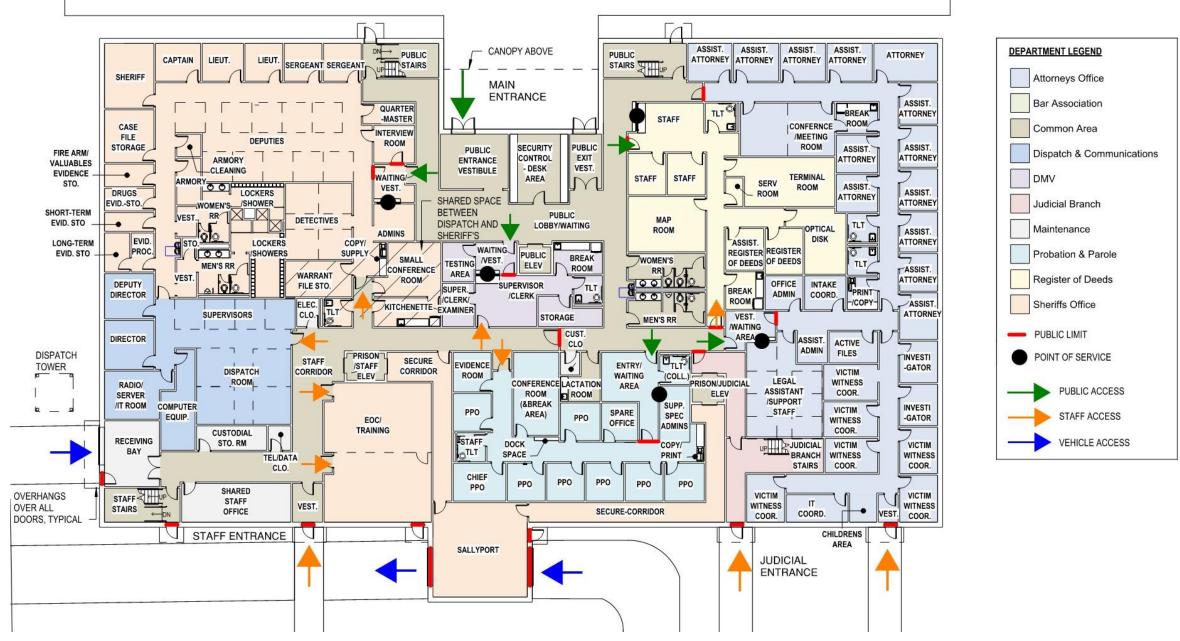


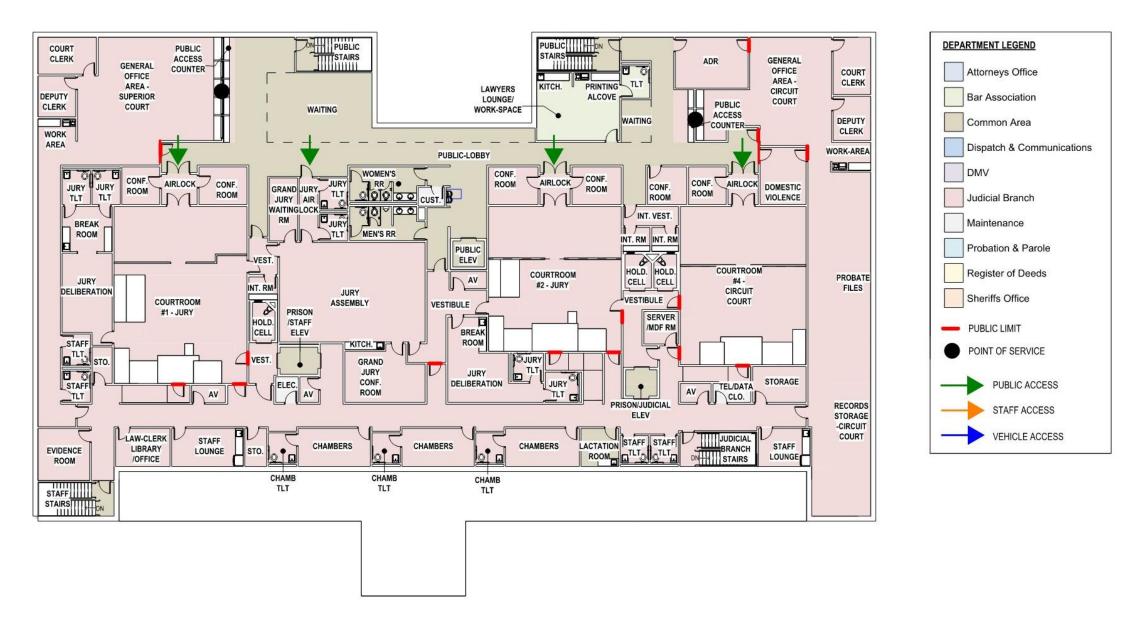
» Conceptual Site Options Analysis

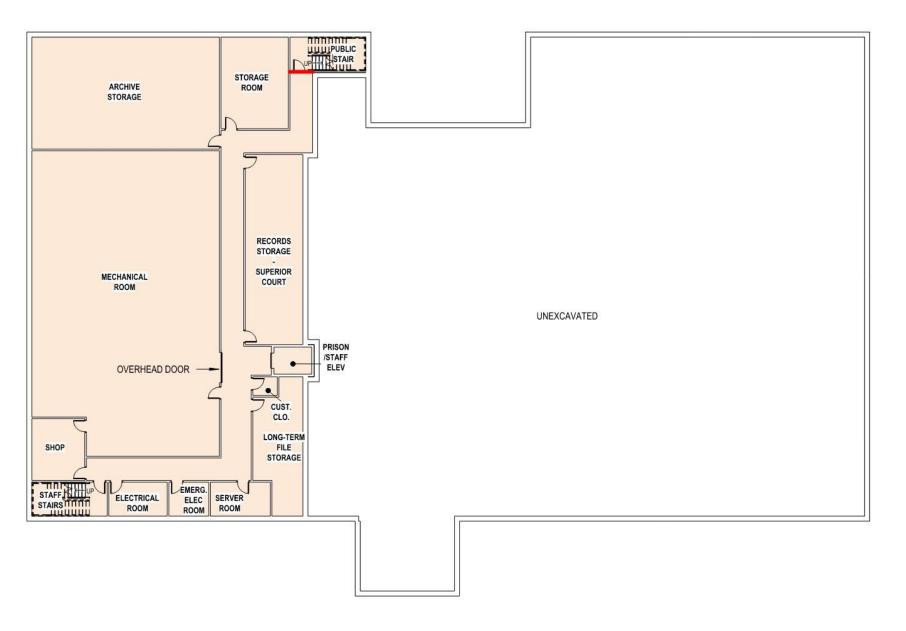


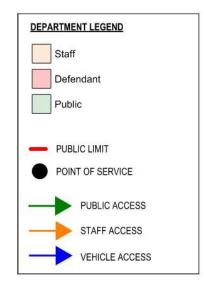
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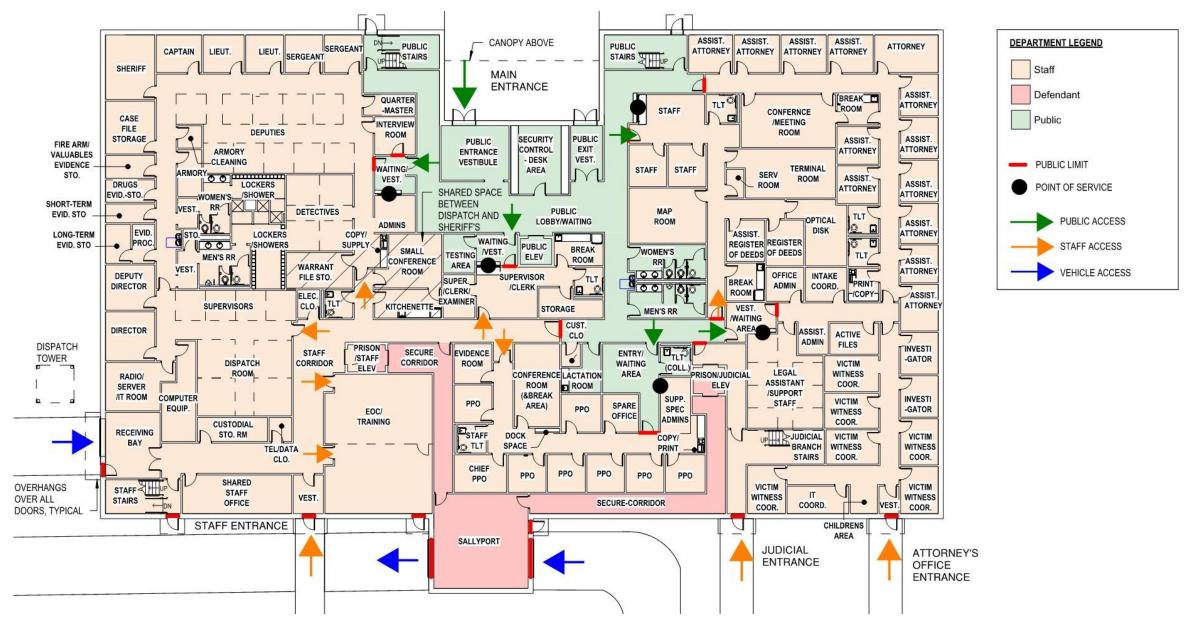


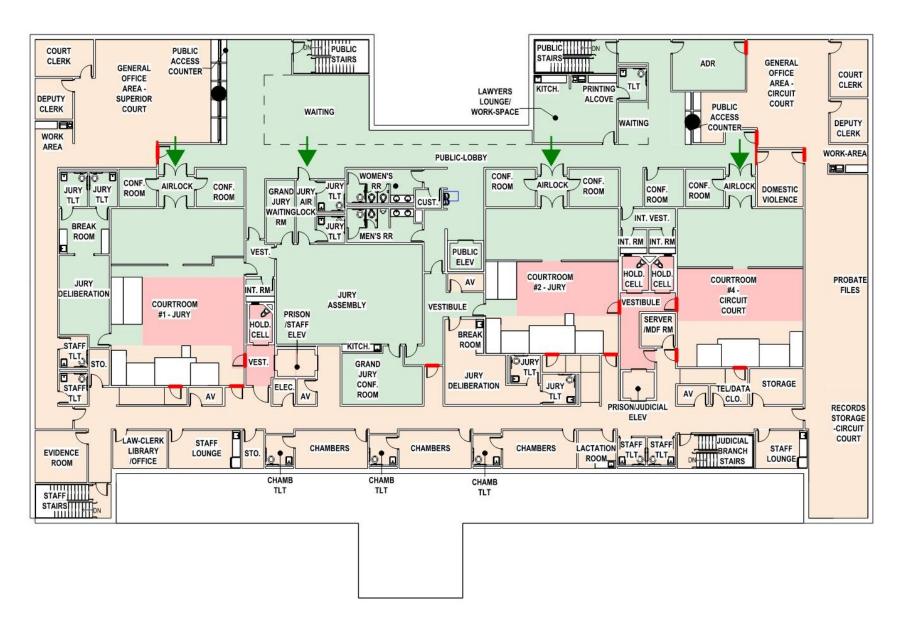


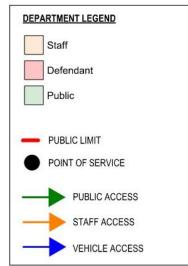


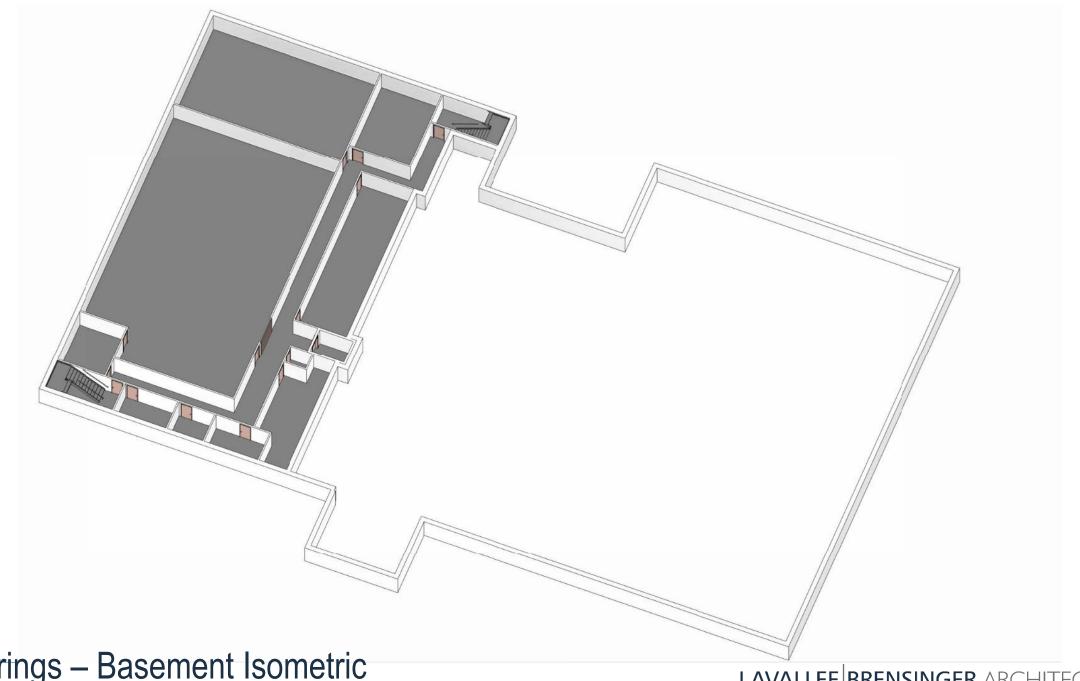






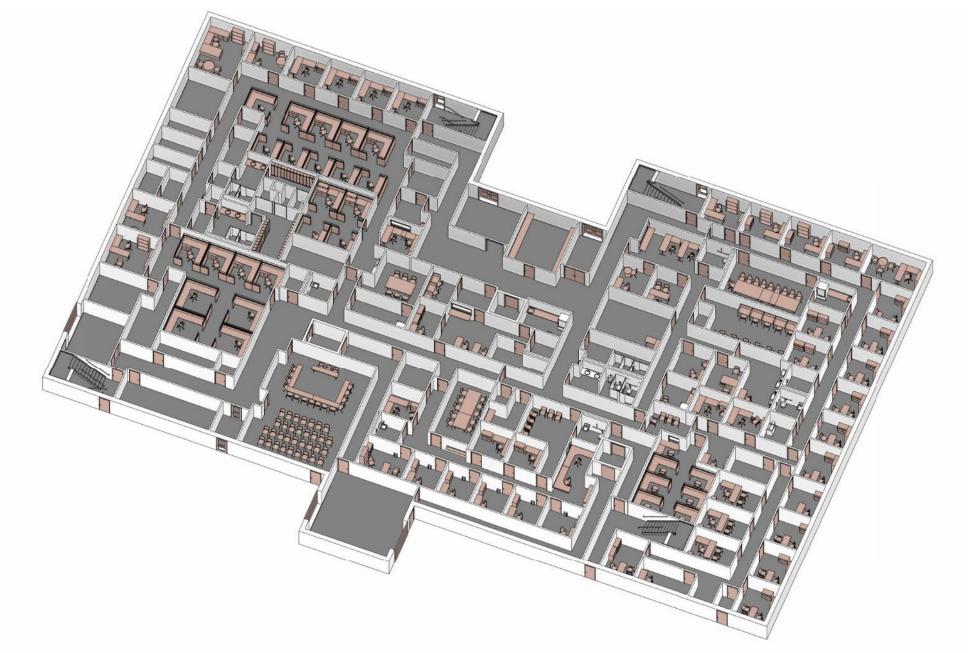


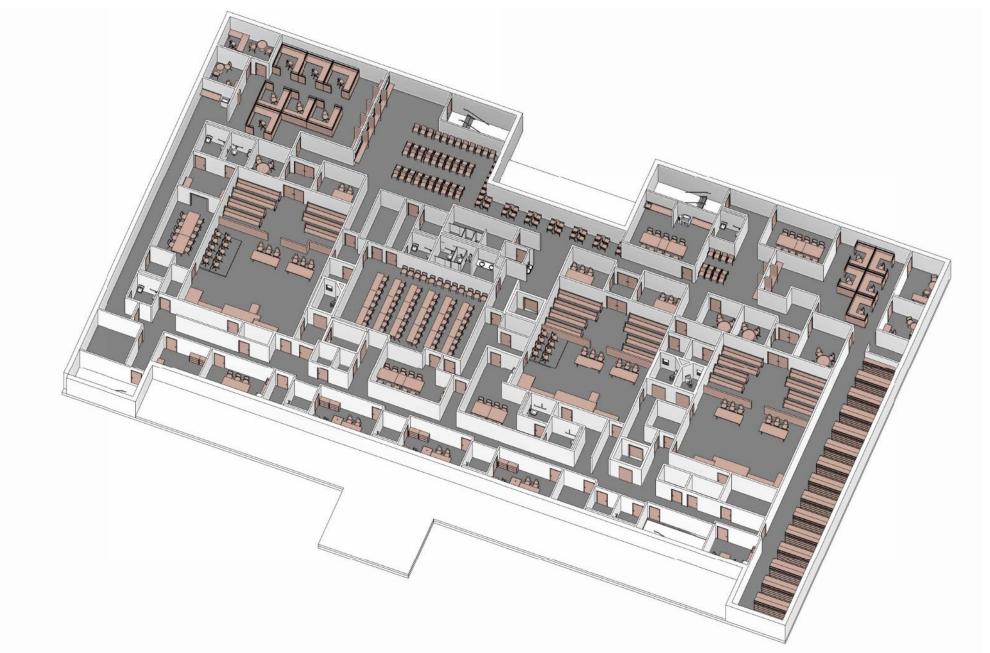


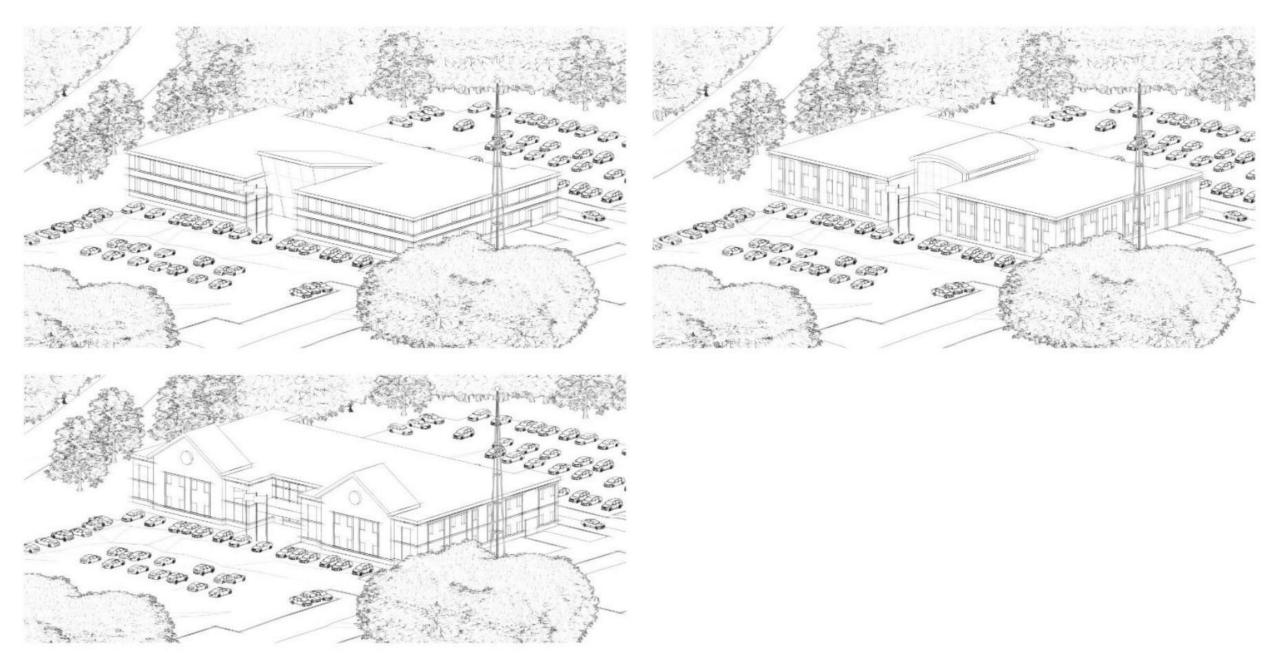


» Renderings – Basement Isometric

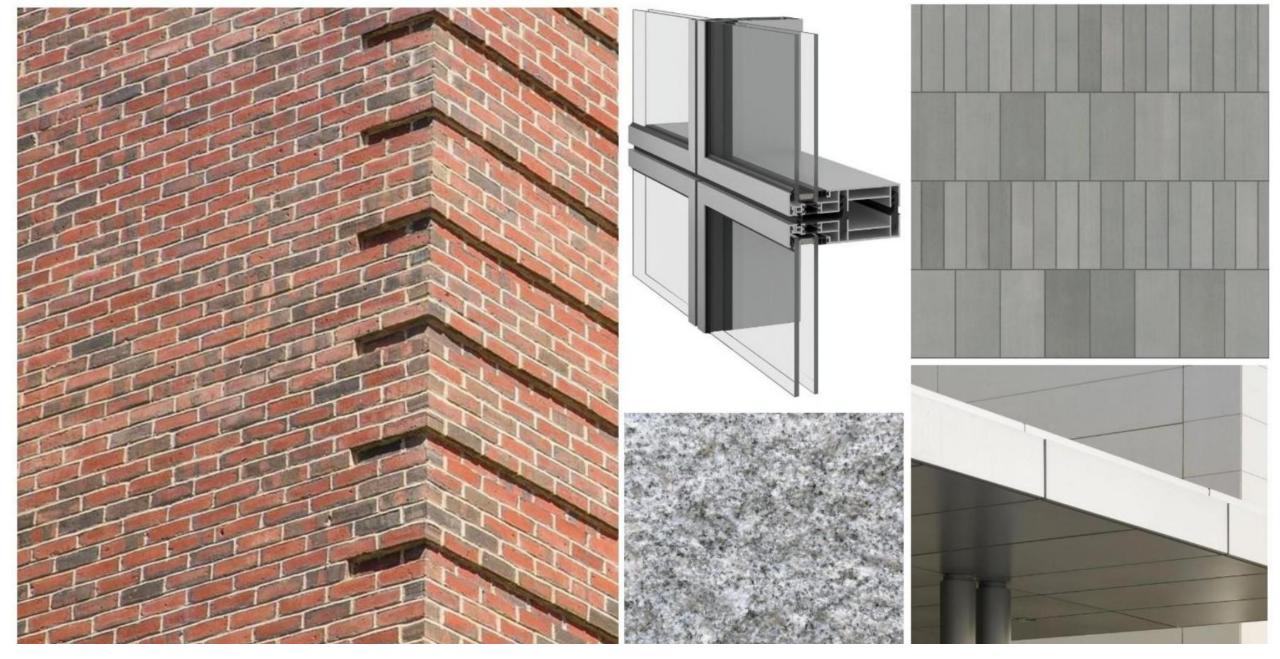
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» Conceptual Massing Options



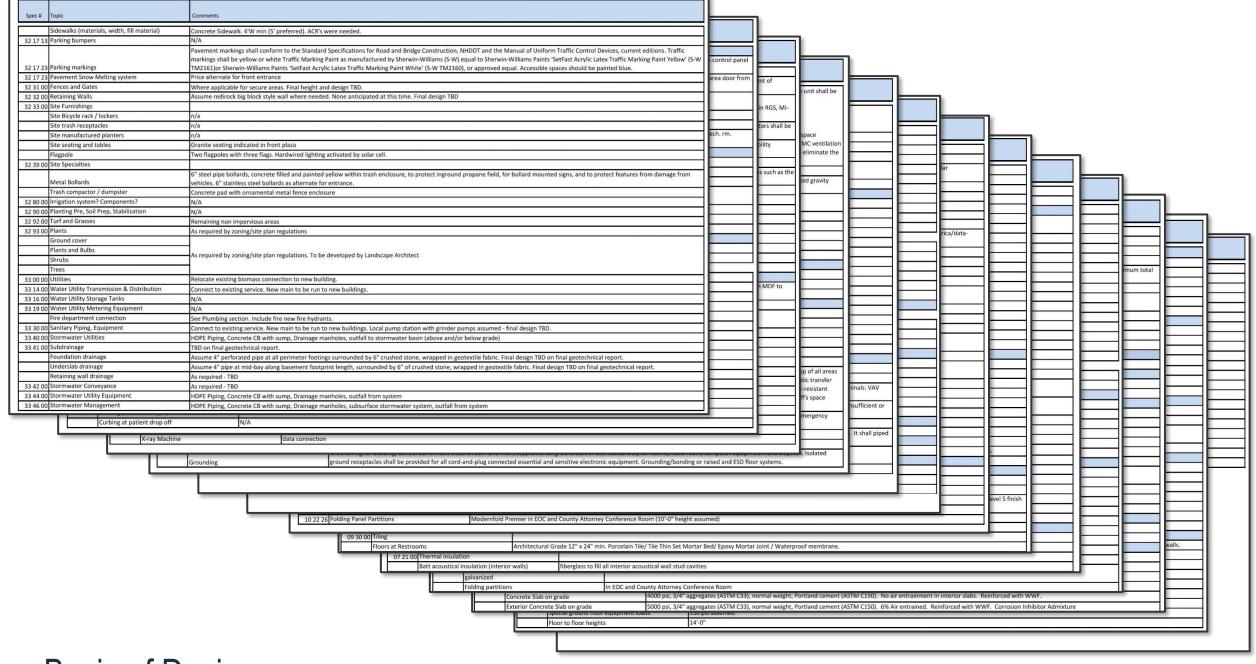
» Contextual Material Studies







» Renderings – Public Entrance Perspective



# Conceptual Budget

Division 1 - General Conditi	ons		Scheduled Value	Cost Per Sq. Foot
General Expense		\$	1,586,645	20.90
Design Services		10.1	in soft costs	
Winter Conditions		\$	150,000	1.98
Utilities		\$	221,750	2.92
Cleanup		\$	407,728	5.37
Travel Expenses		\$	45,000	0.59
	Total Division 1		2,411,123	31.76
Division 2 - Sitework				
General Sitework		\$	3,500,000	46.10
Demolition			695,000	9.15
Abatement		\$	250,000	3.29
Landscaping		\$	275,000	3.62
	Total Division 2	-	4,720,000	62.17
Division 3 - Concrete				
Miscellaneous Concrete		\$	91,400	1.20
Concrete Foundations		\$	814,875	10.73
Concrete Floors		\$	1,065,704	14.04
	Total Division 3		1,971,979	25.98
Division 4 - Masonry				
Unit Masonry		\$	525,000	6.92
Brick Masonry		\$	813,000	10.71
	Total Division 4		1,338,000	17.62
Division 5 - Metals				
Structural Steel		\$	2,716,056	35.78
Miscellaneous Metals		\$	450,000	5.93
	Total Division 5		3,166,056	41.70
Division 6 - Carpentry				
Rough Carpentry		\$	150,000	1.98
Finish Carpentry		\$	931,000	12.26
	Total Division 6		1,081,000	14.24

Division 7 - Thermal/Moisture Protect	ion	Scheduled Value	Cost Per Sq. Foot
Insulation	\$	225,000	2.96
Air/Vapor Barriers	\$	375,000	4.94
Metal Panel Siding	\$	330,000	4.35
Roofing	\$	900,000	11.85
Joint Sealants	\$	200,000	2.63
Total	Division 7	2,030,000	26.74
Division 8 - Doors & Windows			
Doors & Hardware	\$	982,900	12.95
Overhead Doors	\$	10,000	0.13
Glass and Glazing	\$	277,000	3.65
Windows	\$	525,000	6.92
Total	Division 8	1,794,900	23.64
Division 9 - Finishes			
Drywall	\$	1,600,000	21.08
Acoustic Ceilings	\$	373,340	4.92
Flooring	\$	517,344	6.81
Painting	\$	194,004	2.56
Total	Division 9	2,684,688	35.36
Division 10 - Specialties			
Miscellaneous Specialties	\$	248,200	3.27
Toilet Partitions	\$	12,000	0.16
Toilet Accessories	\$	20,000	0.26
Total D	Division 10	280,200	3.69
Division 11 - Equipment			
Miscellaneous Equipment	\$	10,000	0.13
Pre-engineered Garage	\$	1,687,500	22.23
Total D	Division 11	1,697,500	22.36
Division 12 - Furnishings			
Window treatments, Jury and Bench Se	eating \$	322,500	4.25
Total D	Division 12	322,500	4.25
Division 13 - Special Construction			
Metal detector, X-ray machine	\$	57,000	0.75
Total D	Division 13	57,000	0.75
Division 14 - Conveying Systems			
Passenger Elevators	\$	595,000	7.84
Total D		595,000	7.84

Division 15 - Mechanical Systems	í	Scheduled Value	Cost Per Sq. Foot
Sprinkler Systems	\$	338,340	4.46
Plumbing	\$	1,552,032	20.44
HVAC	\$	4,785,432	63.03
Total Division 15		6,675,804	87.93
Division 16 - Electrical Systems			
Electrical, Security, Fire alarm, IT	\$	4,897,424	64.51
Total Division 16		4,897,424	64.51
Division 20 - Contingencies			
5% Design and 5% Construction Contingency	\$	3,570,000	47.02
Total Division 20		3,570,000	47.02
Subtotal - Construction Hard Cost	\$	39,293,174	517.57
General Liability Insurance		150,000	1.98
P&P and Bid Bond	\$	175,000	2.31
Construction Management Fee		1,584,727	 20.87
TOTAL HARD CONSTRUCTION COST	\$	41,202,902	\$ 542.73
SOFT COSTS 15% of Hard Construction Costs:			
A/E Fees			
Geotechnical Fees			
Builders Risk Insurance			
Furniture, Fixtures, and Equipmenet			
Utility Connection Fees			
Third Party Inspections			
Commissioning Agent			
Relocation Expenses			
	-	6,180,435	\$ 81.41

\$47,383,337

\$ 624.14

TOTAL PROJECT COSTS:

This project budget is based on anticipated construction costs in the third quarter of 2026. The total project size is: Courthouse 64,668 s.f. + garage 11,250 s.f. = 75,918 s.f.

#### **ALTERNATES:**

Security glazing \$ 250,000
Security bollards \$ 20,000
Radiant heating at entrances \$ 225,000

#### **EXCLUSIONS:**

New dispatch consoles Telephone systems and handsets Computers and office equipment

## Conclusion