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Police Facility Space Needs Assessment & Conceptual Design

TASK 1: EVALUATION OF CURRENT CONDITIONS AND SPACE NEEDS ASSESSMENT

TASK 2: EVALUATION OF PLAN AND SITE OPTIONS

TASK 3 OPINION OF PROBABLE COSTS – ANTICIPATED BUDGETS

TASK 4: ANTICIPATED SCHEDULE AND PHASING

TASK 5: PRESENTATION AND FINAL REPORT



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SPACE NEEDS: PROGRAM DEVELOPMENT

Where are you now...?

What are your goals...?

How do you work now...?

How do you want to work...?

Benchmarking and Tours

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Program Development

Survey of Stakeholders

TREANORHL
City of Smithville, Missouri
Public Facility Space Needs Assessment
Department Data Survey

1. Staff Workstations: Please check the boxes of the existing and/or desired workstations and quantity.

Staff Workstations	Existing Quantity	Desired Quantity
Workstations of public workers	<input type="checkbox"/>	<input type="checkbox"/>
Open line cubicles	<input type="checkbox"/>	<input type="checkbox"/>
Open high cubicles	<input type="checkbox"/>	<input type="checkbox"/>
Private offices	<input type="checkbox"/>	<input type="checkbox"/>

2. External Program Adjustments: The purpose of this chart is to identify the important relationships between departments and program spaces within the building. Your comments are requested.

Program Space	Addressing Need	High	Low	None	Comments
Public Entry/Lobby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chief of Police	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Staff Workstations: Please check the boxes of the existing and/or desired workstations and quantity.

Staff Workstations	Existing Quantity	Desired Quantity
Workstations of public workers	<input type="checkbox"/>	<input type="checkbox"/>
Open line cubicles	<input type="checkbox"/>	<input type="checkbox"/>
Open high cubicles	<input type="checkbox"/>	<input type="checkbox"/>
Private offices	<input type="checkbox"/>	<input type="checkbox"/>

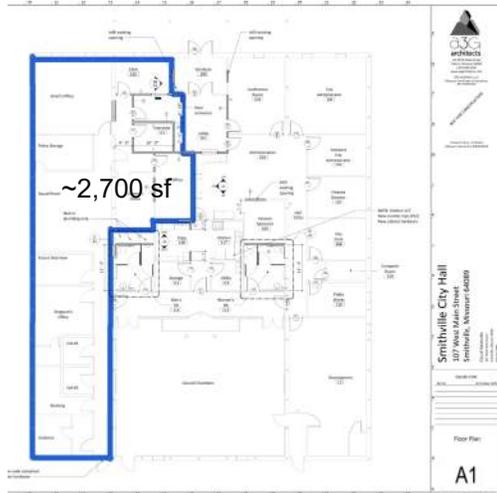
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Program Development

Review of Existing Building



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Program Development

Review of Existing Building



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Review of Existing Building



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Program Development

Review of Population and Staffing Projections

City of Smithville: Population Projections				
Year	2010	2022	2032	2042
Population	8,425	10,997	14,494*	19,104*

Source: US Census, *Smithville 2030 Comprehensive Plan Projections

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Program Development

Review of Population and Staffing Projections

City of Smithville: Population Projections				
Year	2010	2022	2032	2042
Population	8,425	10,997	14,494*	19,104*

Source: US Census, *Smithville 2030 Comprehensive Plan Projections

City of Smithville: Personnel Projections	2022	2032	2042
Population	10,997	14,494*	19,104*
Current Police Staffing (sworn & civilian)	20		
Staffing Ratio (FTE per 1000 residents)	1.8		
Projected Staffing (using current ratio)		26 FTE	36 FTE
Projected Staffing (using MO avg ratio)		35 FTE	48 FTE

Source: DOJ mean average for Missouri cities of similar population is 2.5 FTE per 1,000 residents



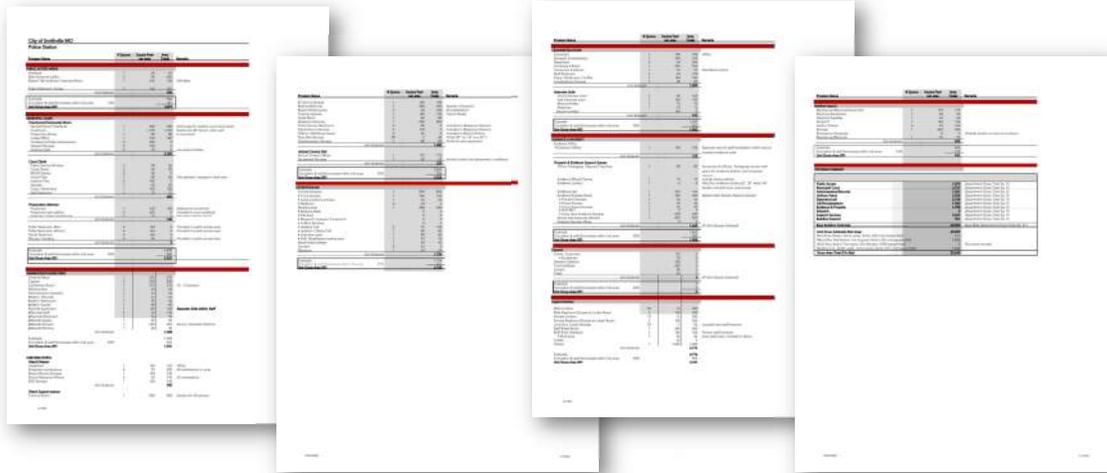
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Review of Population and Staffing Projections



Program Development

Program of Spaces



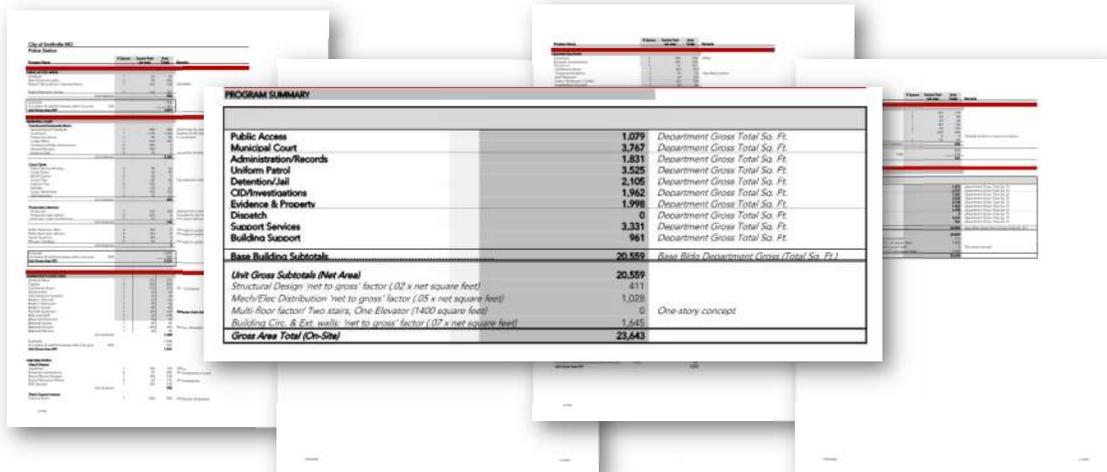
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Program Development

Program of Spaces



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Program Development

Parking Requirement

	Future Sworn Staff 2042	Future Non Sworn Staff 2042	Staff Parking Spaces	Fleet Parking Spaces	Public Parking Spaces	Total Parking Needs
Staff Parking						
Court		5	5			
Police	40	5	45			
Total Staff	40	10	50			
<i>15% reduction for staff time off</i>		<i>minus</i>	<i>8</i>			
<i>Subtract for take home vehicles</i>		<i>minus</i>	<i>10</i>			
Estimated spaces needed			33			
Fleet Parking						
Current Fleet Vehicles				6		
Specialty Vehicles				2		
Projected, Future Fleet Vehicles				8		
Subtract for Vehicles constantly off site				0		
Total Fleet				16		
Public Parking						
Police visitors during business hours					6	
Public /Staff meeting spaces: (1 space per every four seats)					10	
Typical Court session spaces needed (1 space per every four seats)					20	
Total Public					36	
Totals			33	16	36	85



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Site Requirement

SITE SUMMARY:			
BUILDING	1st floor	2nd floor	Sub-total
Building Footprint Area	23,643	0	23,643 SF
Future Building Expansion (Footprint Area)	30%		7,093 SF
PARKING			
Unsecure/ Public Parking			
• Visitor Parking	36 x	350 SF =	12,600 SF
Secure Parking/ Specialty Vehicle Parking			
Staff Vehicles	33 x	350 SF =	11,375 SF
Fleet and Specialty Vehicles	16 x	350 SF =	5,600 SF
SITE IMPROVEMENTS (Paved Areas)			
Site Entry Drive	2 x	1,300 SF =	2,600 SF
Gate @ Staff Parking	2 x	1,200 SF =	2,400 SF
Public Vehicular Drop-off	1 x	1,000 SF =	1,000 SF
Public Entry Area/ Plaza	1 x	800 SF =	800 SF
Public Walks	1 x	400 SF =	400 SF
Staff Entry Area	2 x	400 SF =	800 SF
Staff Walks/ Patio Area	1 x	800 SF =	800 SF
Trash Enclosure	1 x	350 SF =	350 SF
Mechanical/Elec. Equip Yard	1 x	1,000 SF =	1,000 SF
Emergency Generator	1 x	400 SF =	400 SF
Total Developed Area			70,861 SF
Open Space factor	50%		106,292 SF
Total Site Required			177,153 SF
			4.07 Acres



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SITE EVALUATION

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Site Evaluation

SITE A



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Site Evaluation

SITE B

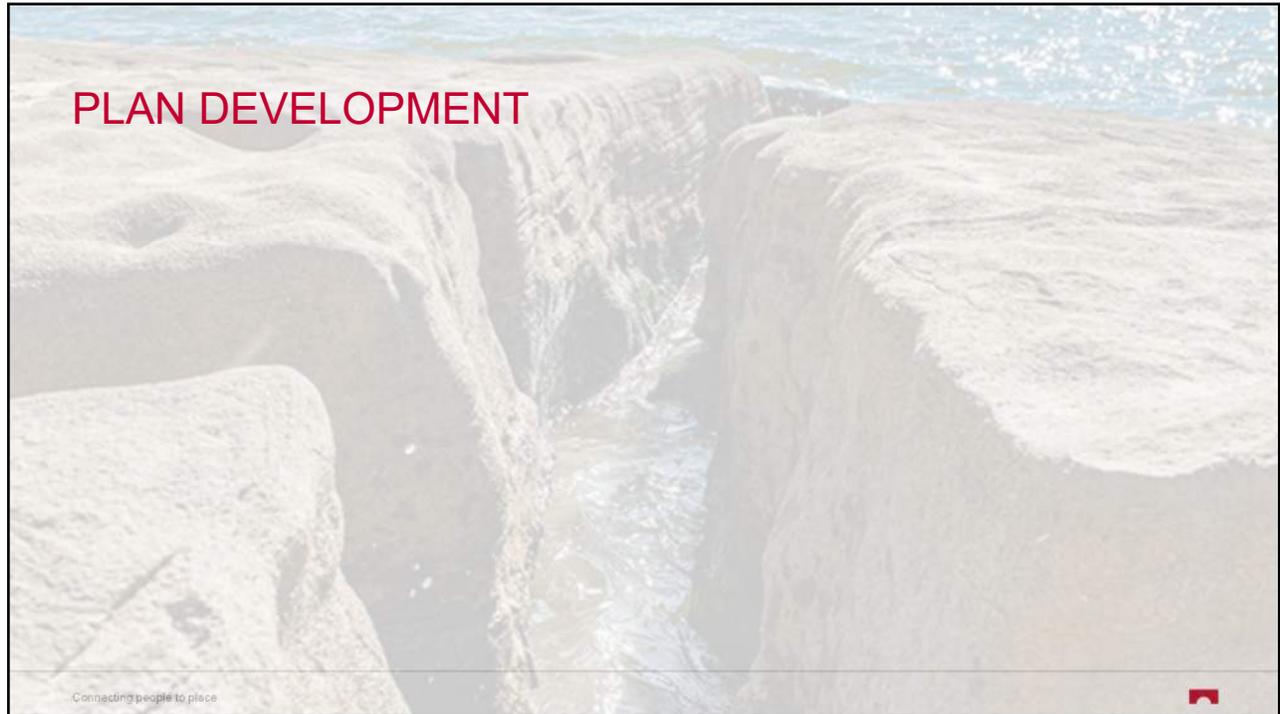


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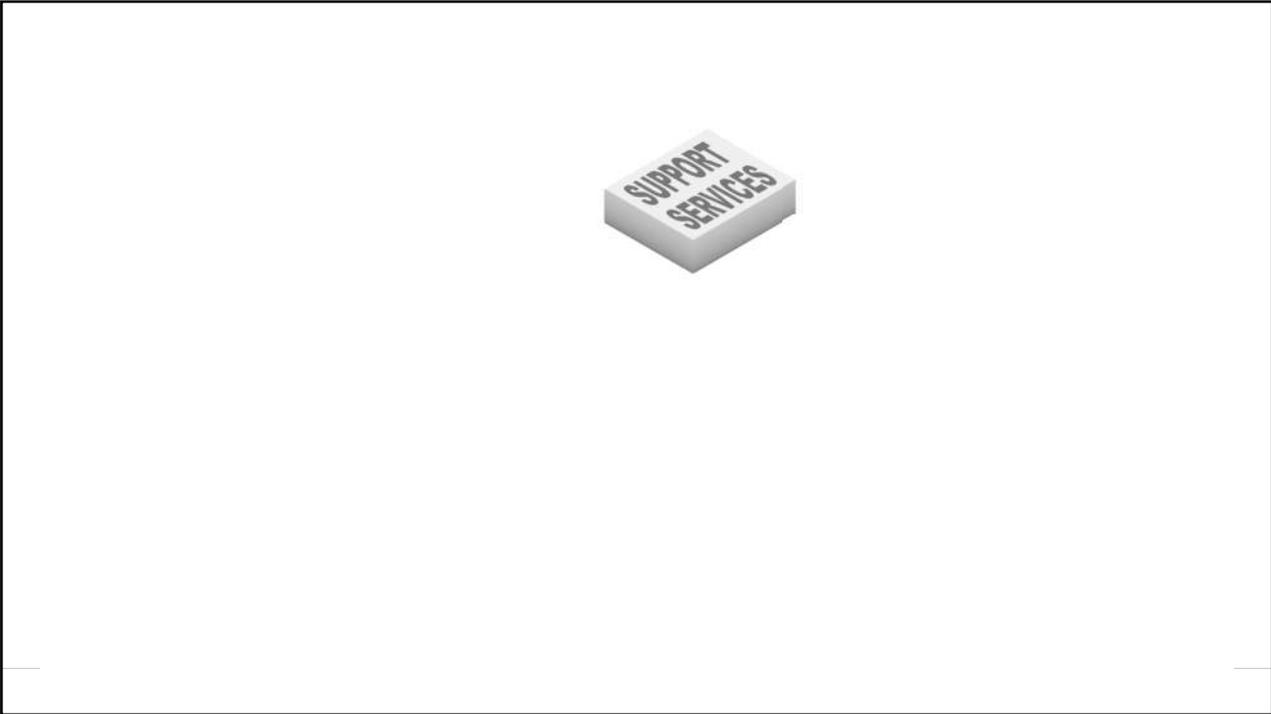
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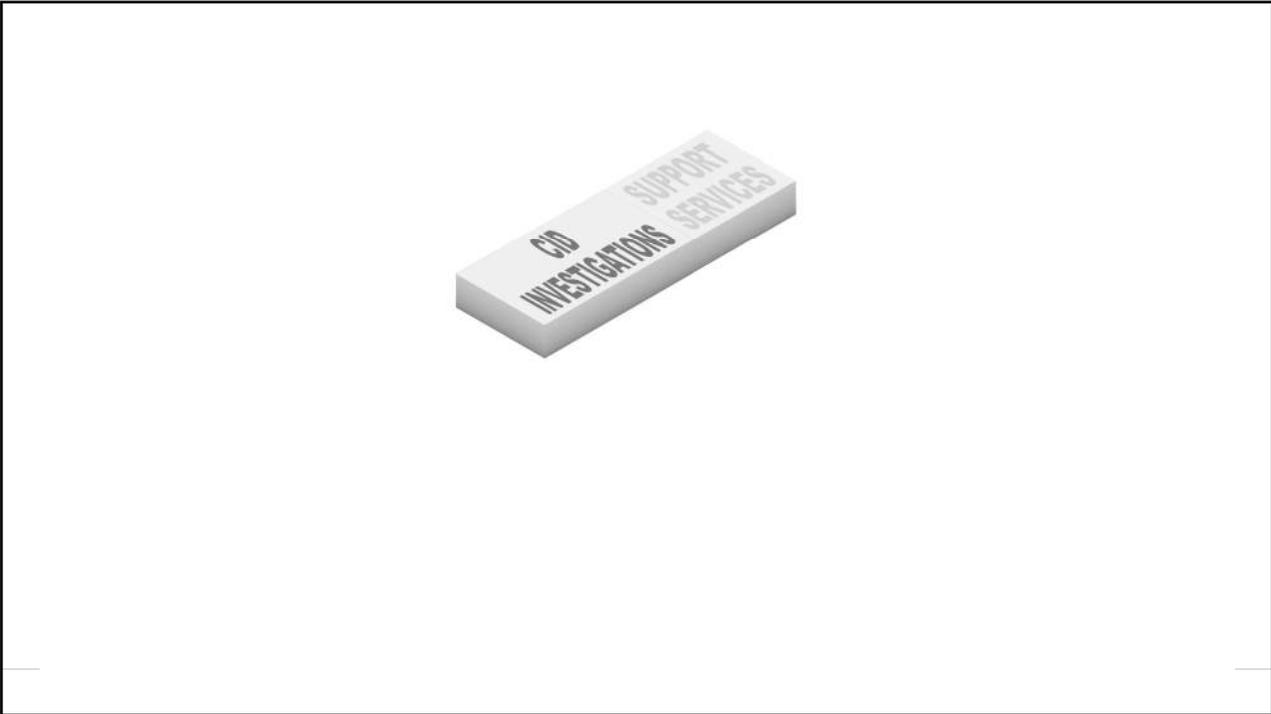
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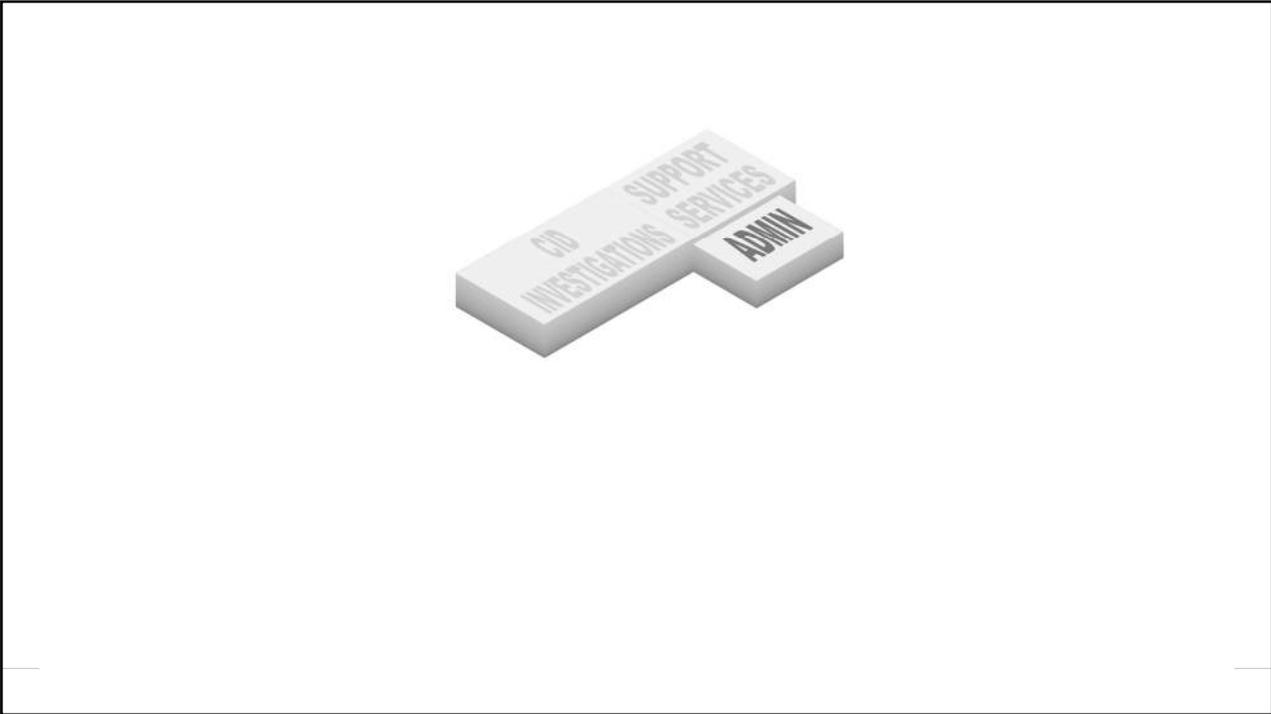
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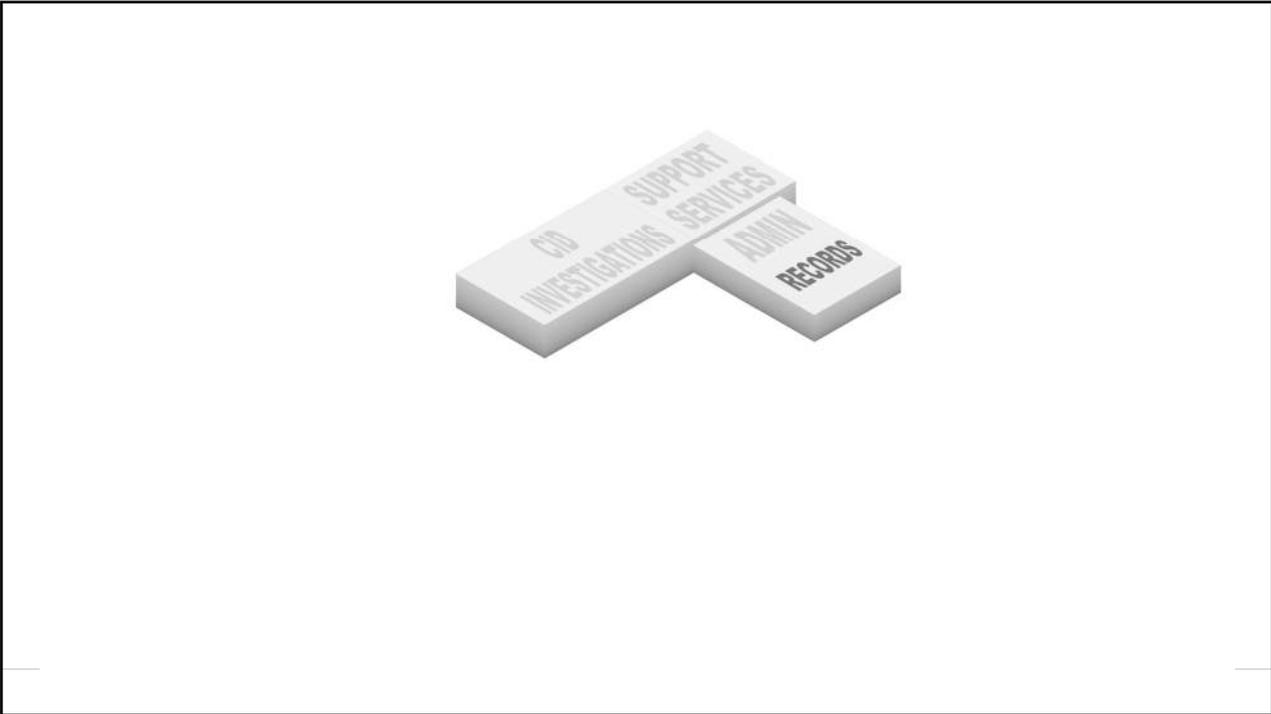
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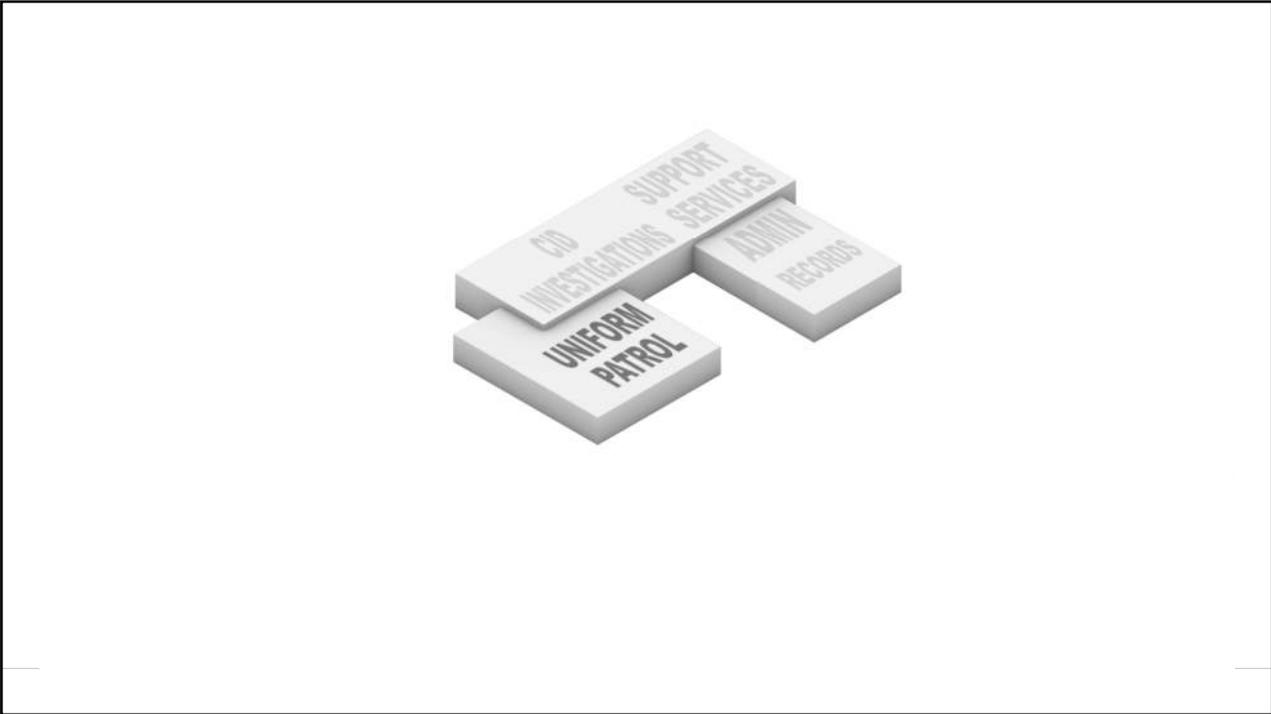
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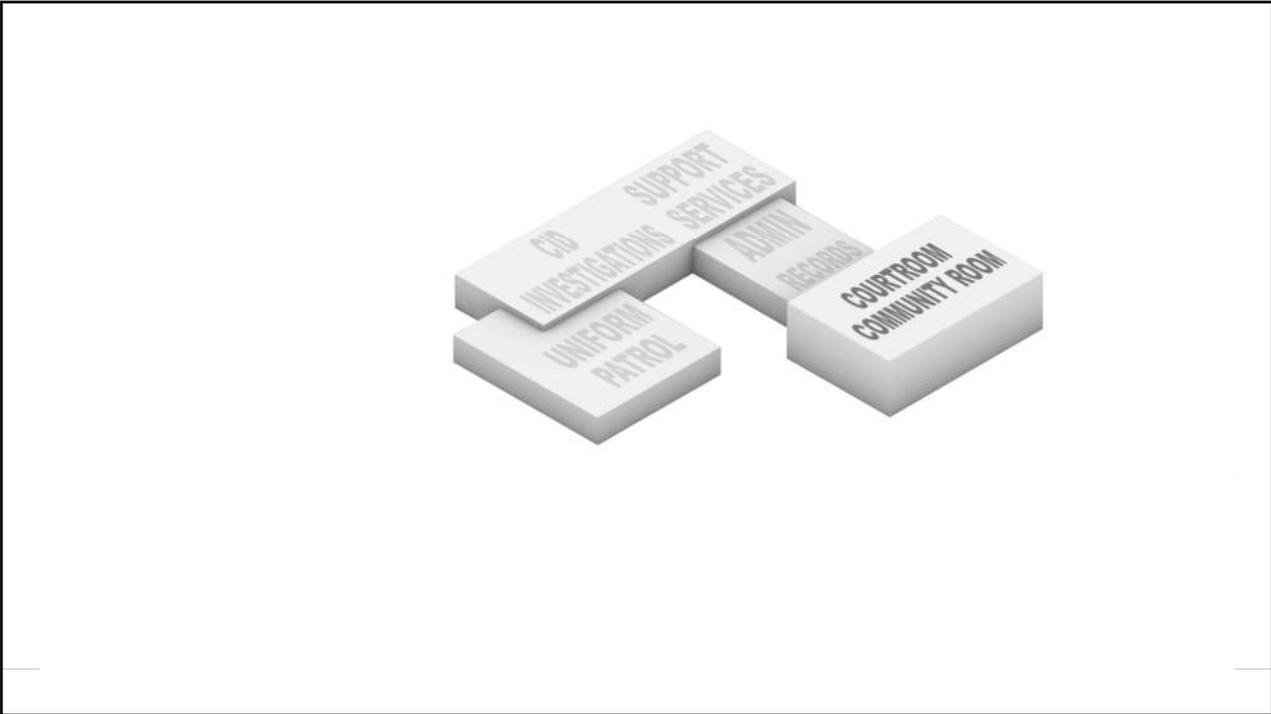
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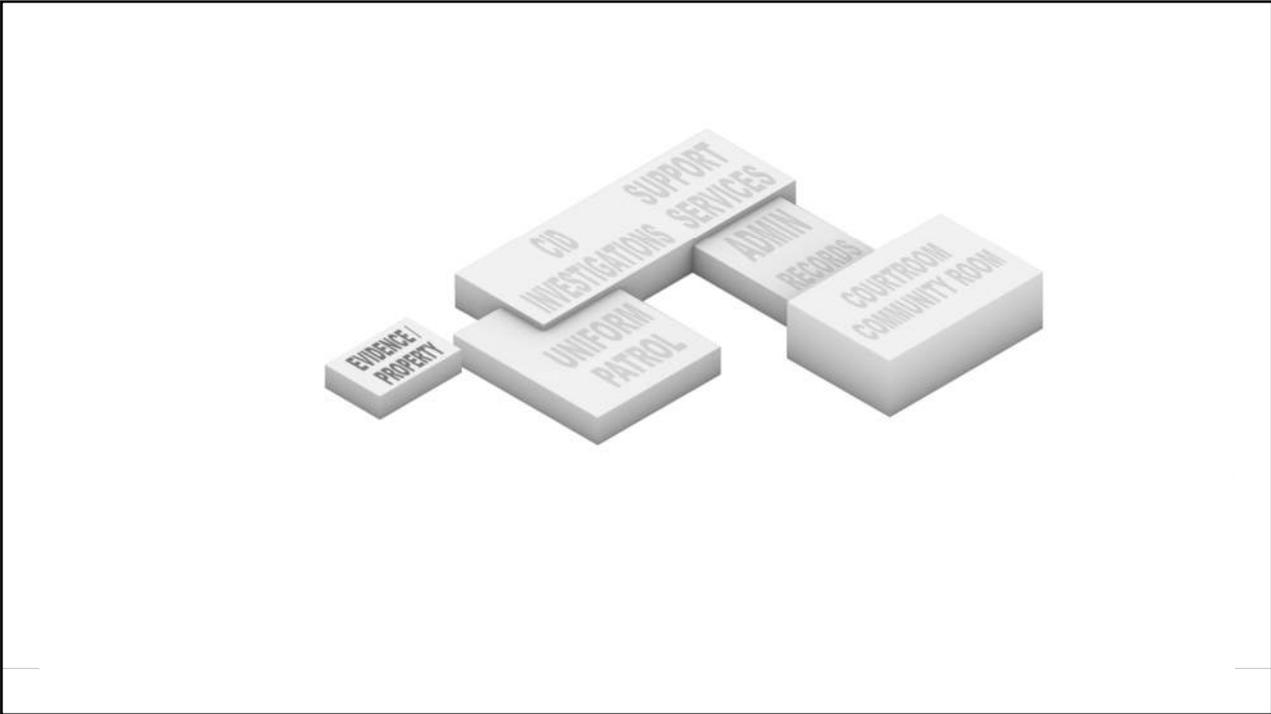
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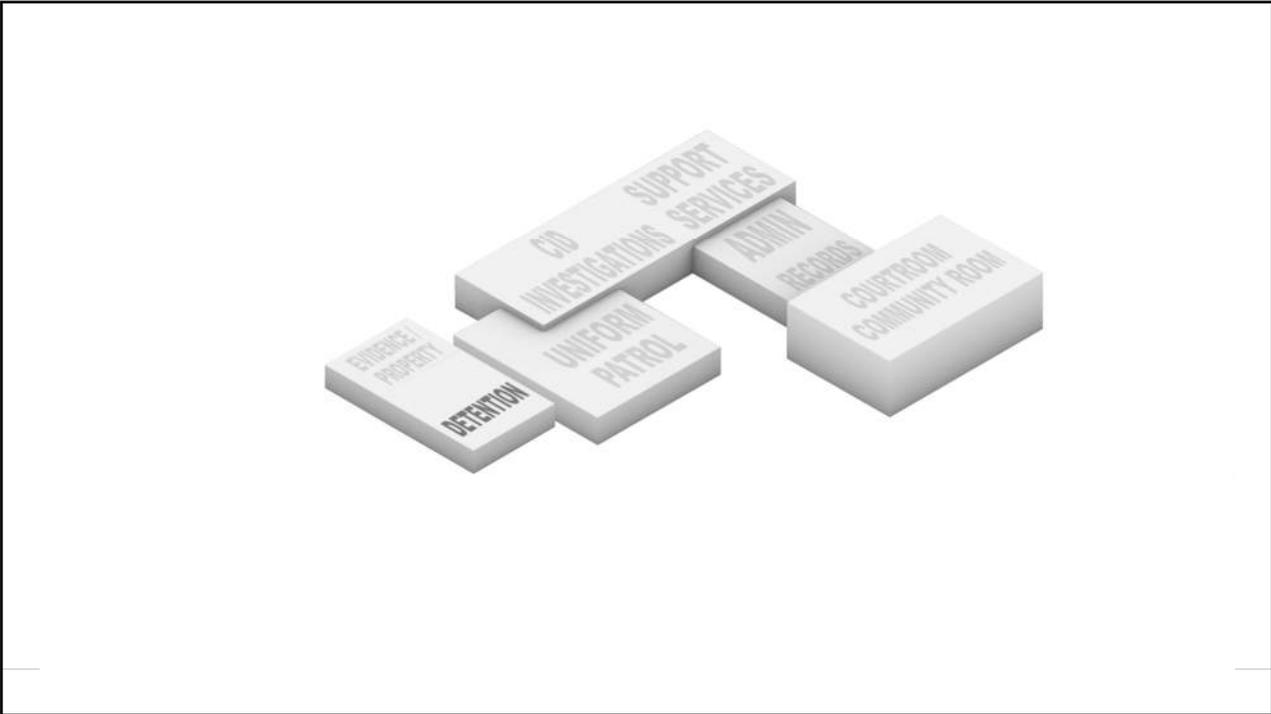
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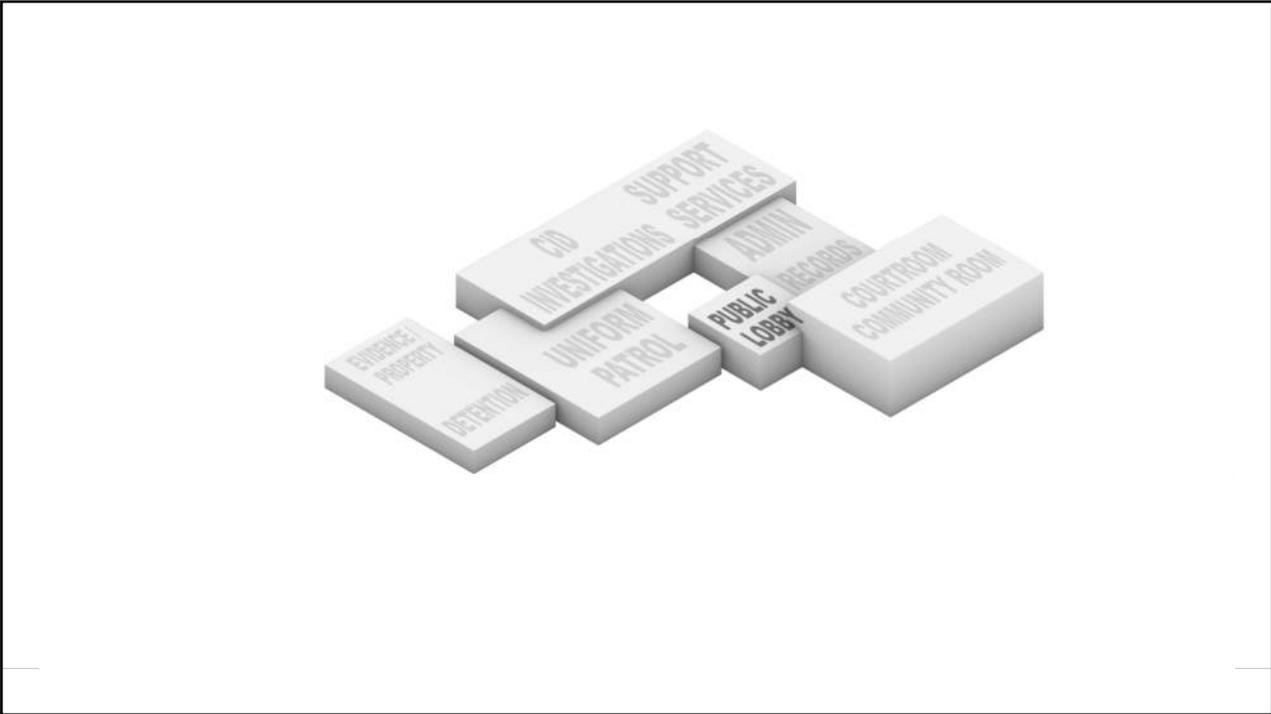
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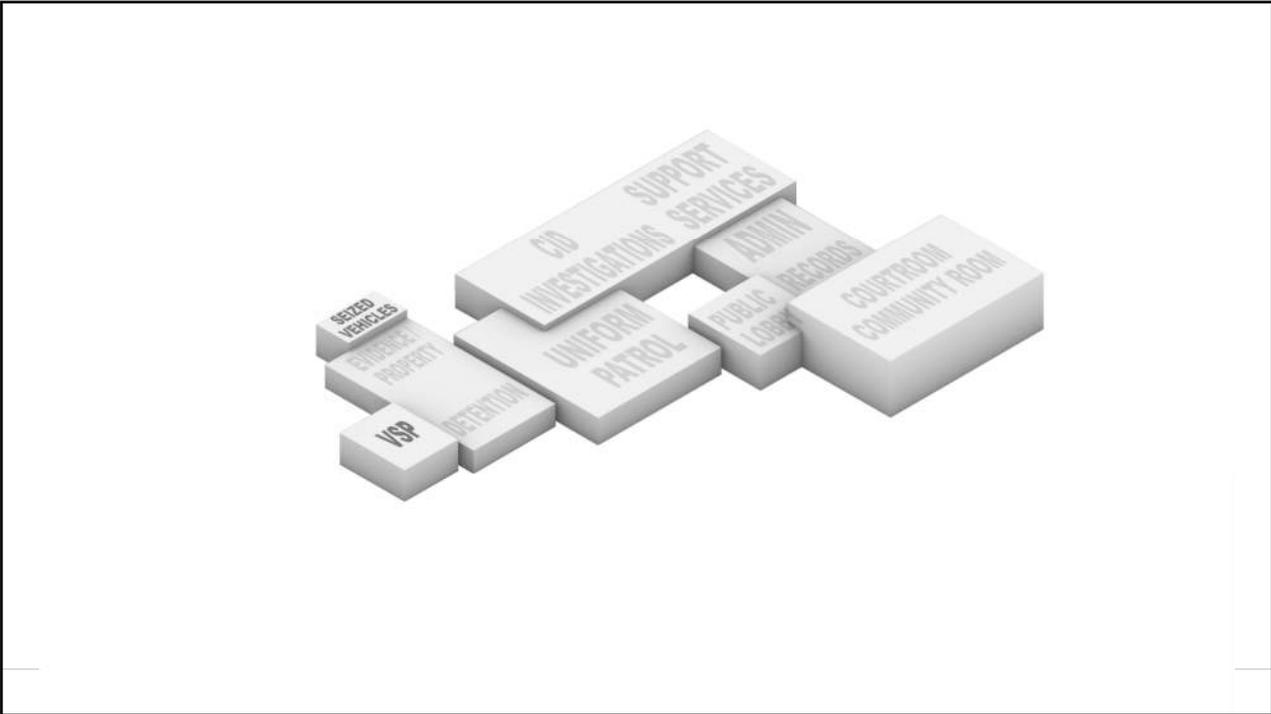
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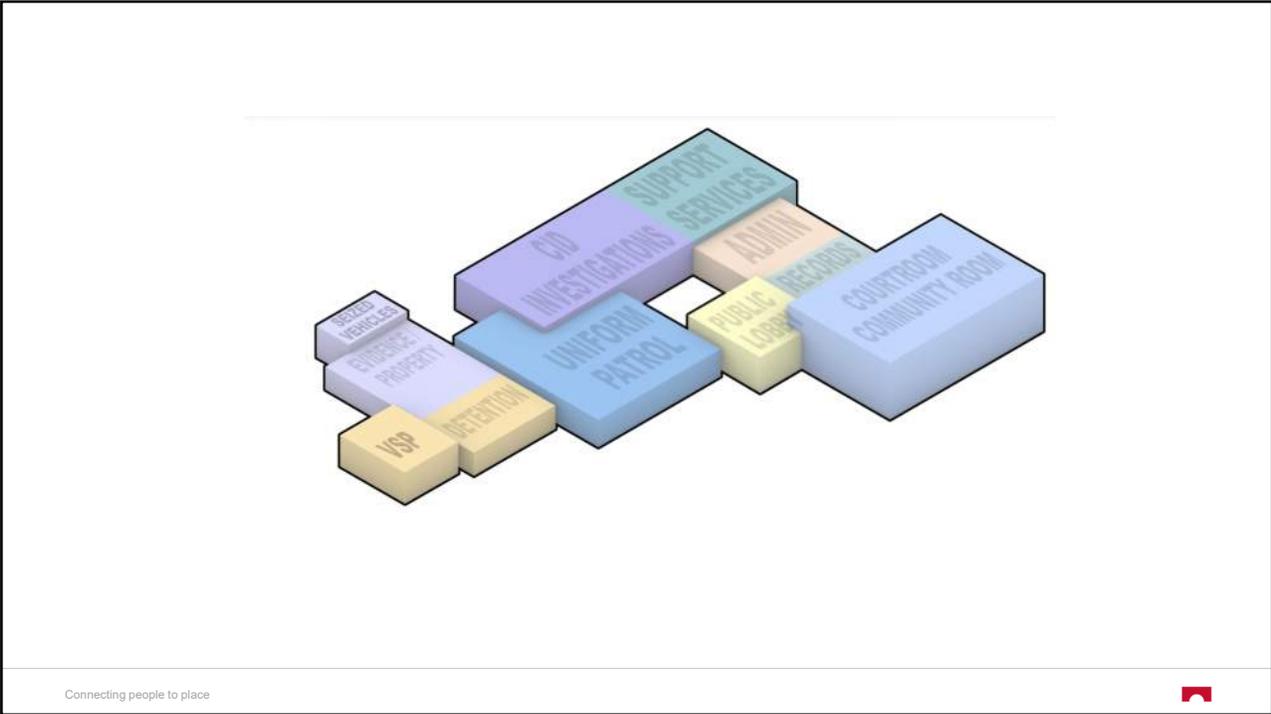
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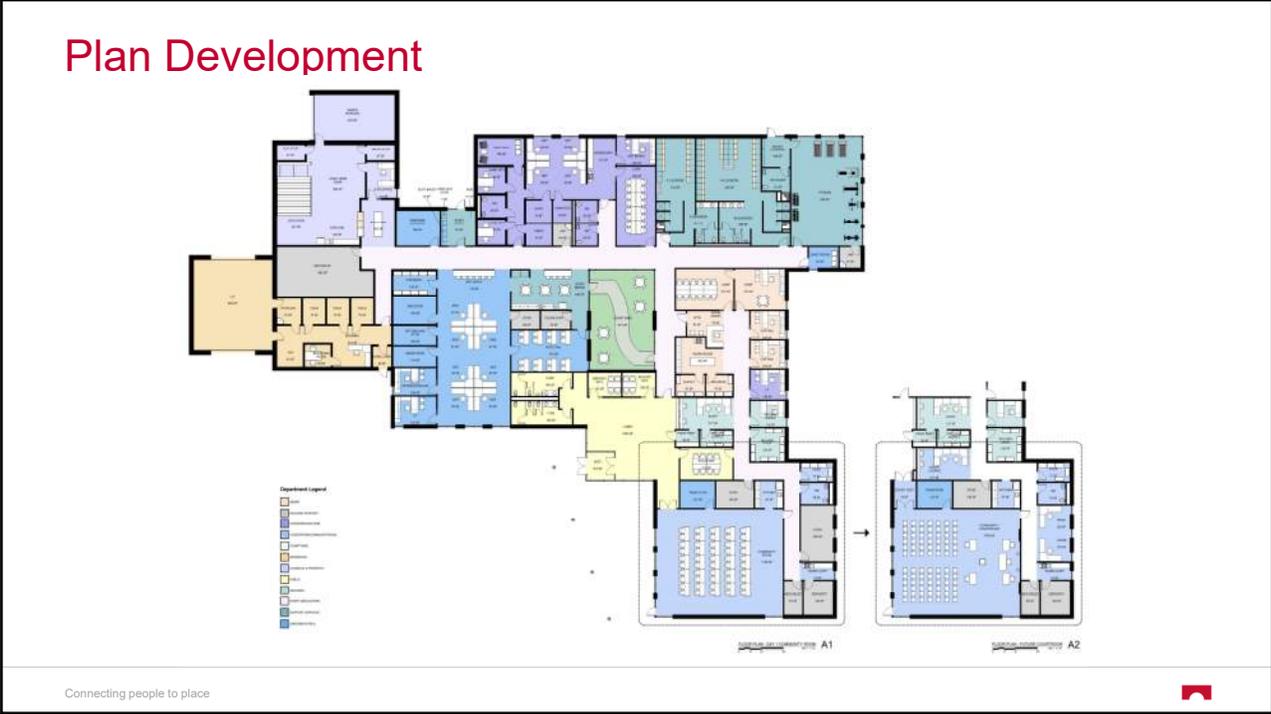
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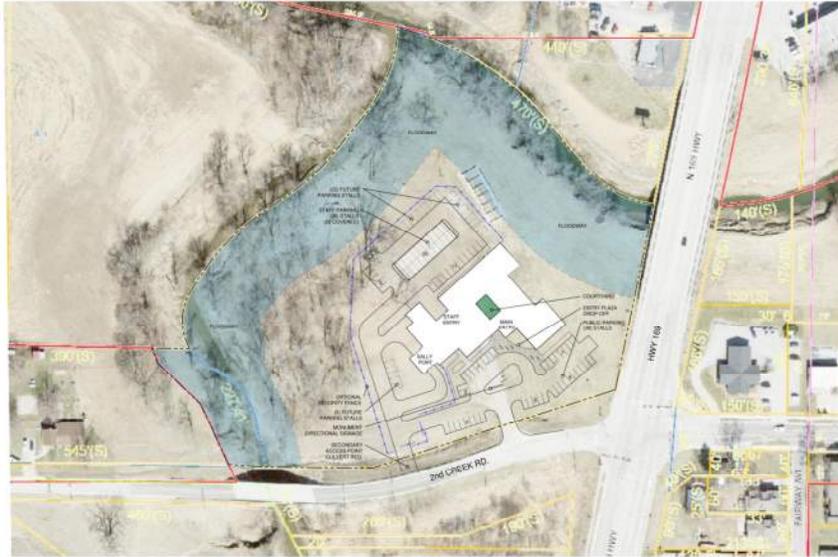


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Site Development



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Site Development



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Plan Concept



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Plan Concept



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Plan Concept



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ESTIMATE OF COSTS



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PROJECT / CONSTRUCTION COSTS

Narrative of architectural materials

- Low-maintenance exterior materials (brick, decorative CMU, etc)
- Full site development (parking carport, site amenities)
- Security requirements (physical, electronic)
- AV/IT/Data equipment
- Specialty furnishings (patrol lockers, evidence lockers, gun storage)

Narrative of structural systems

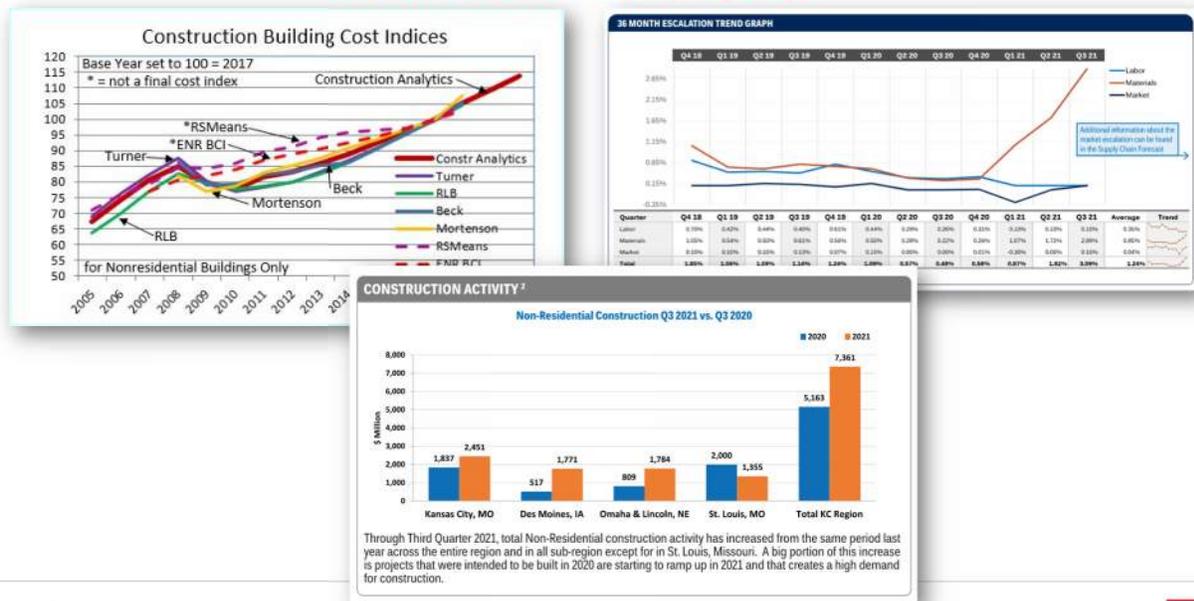
- Alternate structural systems (unknown subsurface conditions)

Narrative of M/E/P/IT systems

- Energy efficiency considered (VRF system)
- Emergency power requirements
- IT/Data infrastructure



PROJECT / CONSTRUCTION COSTS



PROJECT / CONSTRUCTION COSTS

Construction Cost Impacts

- Prevailing Wage
- Site A requires fill as the site is in a floodplain.
- Market has experienced continued increase costs in HVAC, roofing and steel
- KC Marketing is seeing .7% escalation per month
 - Nationally ~6% escalation for 2021
 - KC has experienced higher escalation
 - Budgeted 12% for Q3/2023.



PROJECT / CONSTRUCTION COSTS

Police Stations
Historic Construction Direct Cost Data*



Project	Olathe Police Phase 2 Expansion, Olathe, KS	North Patrol Police Station, Kansas City, MO	Gardner Justice Center, Gardner, KS	Lawrence Police Station, Lawrence, KS	Saline County Sheriff's Headquarters & Detention Center, Salina, KS	Gladstone Police Station, Gladstone, MO	Average
Building SF	51,003 gsf	25,450 gsf	33,338 gsf	50,291 gsf	154,352 gsf	28,770 gsf	57,201 gsf
System Description	\$/gsf	\$/gsf	\$/gsf	\$/gsf	\$/gsf	\$/gsf	\$/gsf
Excavation & Foundations	21.27 / gsf	30.00 / gsf	29.47 / gsf	16.91 / gsf	23.65 / gsf	18.00 / gsf	23.22 / gsf
Structural Frame	54.84 / gsf	33.88 / gsf	37.12 / gsf	26.25 / gsf	43.16 / gsf	33.80 / gsf	38.14 / gsf
Vertical Exterior Enclosures	47.14 / gsf	72.86 / gsf	57.32 / gsf	48.64 / gsf	40.59 / gsf	36.90 / gsf	50.58 / gsf
Horizontal Exterior Enclosures	12.84 / gsf	37.13 / gsf	11.87 / gsf	9.25 / gsf	32.74 / gsf	8.97 / gsf	18.80 / gsf
Interior Construction & Finishes	80.74 / gsf	57.74 / gsf	57.30 / gsf	62.77 / gsf	70.09 / gsf	59.46 / gsf	64.68 / gsf
Conveying	0.00 / gsf	0.00 / gsf	0.00 / gsf	1.46 / gsf	0.00 / gsf	4.74 / gsf	1.03 / gsf
Plumbing	13.97 / gsf	17.80 / gsf	13.24 / gsf	10.27 / gsf	34.70 / gsf	14.89 / gsf	17.45 / gsf
HVAC	39.23 / gsf	40.31 / gsf	27.05 / gsf	29.90 / gsf	46.81 / gsf	27.64 / gsf	35.12 / gsf
Fire Protection	4.87 / gsf	2.98 / gsf	3.09 / gsf	3.84 / gsf	6.08 / gsf	3.06 / gsf	3.99 / gsf
Electrical	49.25 / gsf	56.28 / gsf	57.37 / gsf	34.73 / gsf	68.15 / gsf	49.97 / gsf	52.62 / gsf
Equipment & Furnishings	14.94 / gsf	34.27 / gsf	4.05 / gsf	22.04 / gsf	52.36 / gsf	7.55 / gsf	22.53 / gsf
Special Construction & Demolition	5.48 / gsf	0.00 / gsf	0.00 / gsf	0.00 / gsf	51.36 / gsf	4.94 / gsf	10.30 / gsf
General Requirements & Permits	8.06 / gsf	7.03 / gsf	25.22 / gsf	19.78 / gsf	15.46 / gsf	5.77 / gsf	13.50 / gsf
Sitework	50.32 / gsf	68.51 / gsf	25.86 / gsf	34.68 / gsf	30.62 / gsf	12.84 / gsf	37.14 / gsf
Indirects and Contingency	96.75 / gsf	49.15 / gsf	42.64 / gsf	34.32 / gsf	96.62 / gsf	64.20 / gsf	67.61 / gsf
Project Totals - Present Day in KC	499.70 / gsf	507.75 / gsf	391.60 / gsf	354.84 / gsf	614.19 / gsf	372.53 / gsf	456.77 / gsf
Project Totals - Escalated to Q1 2023	539.68 / gsf	548.37 / gsf	422.93 / gsf	383.23 / gsf	663.33 / gsf	402.33 / gsf	493.31 / gsf
Project Totals - Escalated to Q3 2023	559.66 / gsf	568.68 / gsf	438.59 / gsf	397.42 / gsf	687.89 / gsf	417.23 / gsf	511.58 / gsf
Estimated Cost Q3 2023							

*Excludes design fees and owner soft costs



PROJECT / CONSTRUCTION COSTS

Project	Smithville Police Station, Smithville, MO
Building SF	25,602 gsf
System Description	\$/gsf
Excavation & Foundations	29.47 / gsf
Structural Frame	52.12 / gsf
Vertical Exterior Enclosures	67.32 / gsf
Horizontal Exterior Enclosures	21.87 / gsf
Interior Construction & Finishes	62.30 / gsf
Conveying	0.00 / gsf
Plumbing	13.24 / gsf
HVAC	32.05 / gsf
Fire Protection	3.09 / gsf
Electrical	57.37 / gsf
Equipment & Furnishings	4.05 / gsf
Special Construction & Demolition	0.00 / gsf
General Requirements & Permits	25.22 / gsf
Sitework	50.86 / gsf
Indirects and Contingency	42.64 / gsf
Project Totals - Present Day in KC	461.60 / gsf
Project Totals - Escalated to Q1 2023	498.53 / gsf
Project Totals - Escalated to Q3 2023	516.99 / gsf
Estimated Cost Q3 2023	\$ 13,236,029

*Excludes design fees and owner soft costs

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PROJECT / CONSTRUCTION COSTS

	Square Footage	Average \$/SF	Total
CONSTRUCTION COSTS			
Excavation & Foundations		\$29.47	\$754,490.94
Structural Frame		\$52.12	\$1,334,376.24
Vertical Exterior Enclosures		\$67.32	\$1,723,526.64
Horizontal Exterior Enclosures		\$21.87	\$559,915.74
Interior Construction & Finishes		\$62.30	\$1,595,004.60
Conveying		\$0.00	\$0.00
Plumbing		\$13.24	\$338,970.48
HVAC		\$32.05	\$820,544.10
Fire Protection		\$3.09	\$79,110.18
Electrical		\$57.37	\$1,468,786.74
Equipment & Furnishings		\$4.05	\$103,688.10
Special Construction & Demolition		\$0.00	\$0.00
General Requirements & Permits		\$25.22	\$645,682.44
Sitework		\$50.86	\$1,302,117.72
Indirect		\$11.87	\$303,810.00
Sub-Total			\$11,030,023.92
Contingency		20%	\$ 2,206,005
TOTAL BASE BID	25,602	\$ 517	\$ 13,236,029
Budget escalated to Q3 2023			
SOFT COSTS			
Site Acquisition			\$ -
Off Site Utilities			\$ -
Off-Street Improvements	TBD		\$ -
Building permit	Waived		\$ -
Development Fees	Not applicable		\$ -
Environmental Phase I	Not applicable		\$ -
A/E Design Fees	8.0% of construction		\$ 1,058,882
Civil and Landscape	Included in Design Fees		\$ -
Technology Design	Included in Design Fees		\$ -
Security Electronics Design	Included in Design Fees		\$ -
Reimbursables/Other			\$ 2,500
Survey			\$ 6,500
Soils Report			\$ 15,000
Construction Testing			\$ 75,000
Printing			\$ 2,500
Furniture and Equipment	6.5% of construction		\$ 860,342
Telephone/Data	Conduit/Cable in Construction Costs		\$ -
Builers Risk/Insurance	Included in construction costs		\$ -
Commissioning			\$ 35,000
Moving Expenses	TBD		\$ 12,000
Bond/Financial Fees	TBD		\$ -
Owner Contingency	5% of construction		\$ 661,801
SOFT COST TOTALS			\$ 2,729,526
TOTAL PROJECT COSTS			\$ 15,965,555

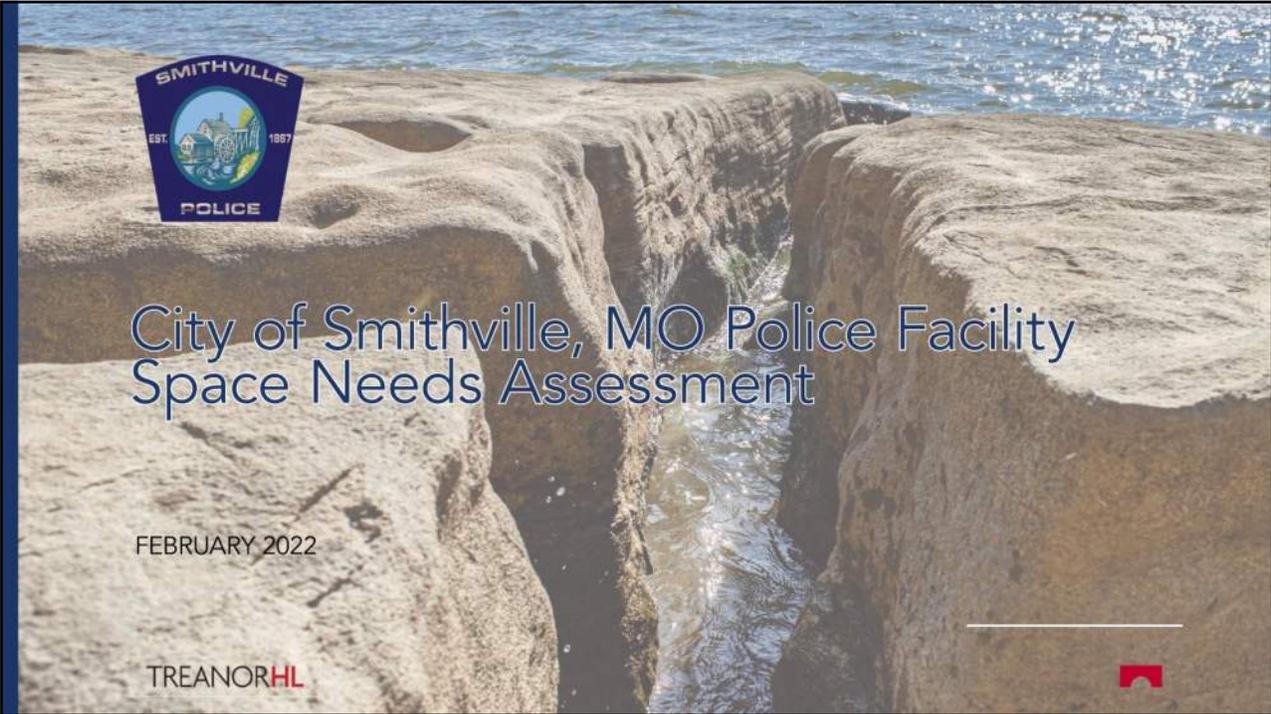
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