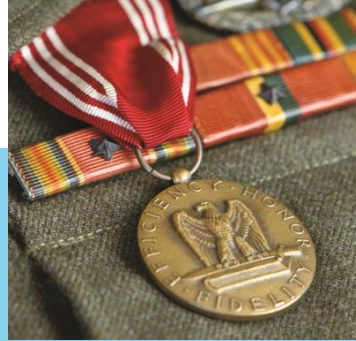




U.S. Department of Veterans Affairs

VISN 1



Manchester VAMC



Facility Planning Meeting

1 Day Session
November 30, 2017

Consulting & Cost Modeling



EBA Ernest Bland Associates, P.C.

Alpha Corporation | Affiliated Engineers, Inc.

Meeting Agenda

- 10:15 Overview**
- **Experience with VISN 1 FMP Process**
 - **SOW (Accelerated Process)**
 - **Discussion of Scenarios (Discuss basis)**
- 10:30 Review of Planning Options**
- 11:00 Comparison of Options**
- **Advantages and Disadvantage**
 - **Cost**
 - **Schedule**
- 11:30 Discussion**
- 11:45 Adjourn**



VISN 1



Overview



Site visits and leadership interviews

Conduct site visits to survey facilities and space. Host discussions with leadership and user groups

Identify impacts to Facility Master Planning

Garner input and consider impact of service line strategy in the context of Facility Master Planning

Finalize approved adaptive workload

Adapt facility workload projection to reflect approved strategic direction, which then feeds space calculator.

Identify space and facility needs

Analyze space gaps and, with facility input, identify facility needs and priorities.

Develop FMP Concepts

Develop FMP concepts based on space programs and facility priorities.

Identify FMP Projects

Develop project lists and associated budget costs based on FMP concepts.



Site & Functional Assessments

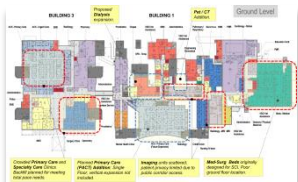
FMST's

Space Calculator

Space Programs

Facility Master Plans

Project Lists for SCIP



Area	Current	Target	Delta
Procedure Areas	10	15	-5
PACU	5	8	-3
Prep/Stage	12	18	-6
Staff Admin	3	5	-2
Surgey Reception	2	3	-1
Total	32	49	-17

Department	Current	Target	Delta
Procedure Areas	10	15	-5
PACU	5	8	-3
Prep/Stage	12	18	-6
Staff Admin	3	5	-2
Surgey Reception	2	3	-1
Total	32	49	-17

Functional Area	Department Gross	Building Gross for area (x1.45)
Procedure Areas & Support (8 OR's)**	24,082	27,694
PACU (11 Positions)	5,729	6,598
Prep/ Stage II Recovery (18 Positions)	7,524	8,652
Staff Looker/ Lounge (incl. On-Call)***	4,777	5,494
Staff Admin & Education***	16,568	19,053
Surgey Reception/ Waiting	2,720	3,138
Total	61,400	70,619



Purpose and Scope of Manchester Project

- To assist the VISN and the VISN Task Force in determining what may be the best alternative for improvements at the Manchester VAMC campus.
- Review Existing Site and Facility Conditions
- Determine Work Loads and Bed Numbers per VISN
- Develop Concept Options for each scenarios
 - Full Service Inpatient Hospital
 - Subacute Inpatient Hospital
 - Ambulatory Care Center only
 - Minimum Required Infrastructure Improvements “Bare Bones”
- Provide Order of Magnitude Impacts and Costs for each Option
 - Infrastructure
 - Demolition
 - Parking
 - Additions
 - Utilities
 - Renovations
- Deliver Report in Summary to VISN December 2017

SOW / Direction

The core objective of this study is to assist the VISN and the VISN Task Force in determining what may be the best alternative for improvements at the Manchester VAMC campus.

Through the process of on-site meetings and a series of interactive communications with an accelerated deliverable time frame.

Below is the summary of the initial direction given to the design team.

Initial direction and scope includes:

- Architectural Programming
- Architectural Planning
- Infrastructure Analysis/Impacts
- Develop cost model for alternative planning scenarios
- Coordinate with VISN 1 Task Force
- Review data provided by VISN

Planning Scenarios (Basis of Planning)

Four program scenarios were identified

Full Service Inpatient Hospital

The addition of 30 Medical/Surgical beds and associated support needs for a full service Inpatient Hospital was Included in the original SOW in addition to increased Primary, Specialty and Mental Health Ambulatory Care.

Subacute Inpatient Hospital

In lieu of 30 Medical Surgical acute beds, an optional scenario was introduced at the October 18th meeting to add a 15 bed Subacute Care unit to expanded Ambulatory Care services provided in the current facility.

Ambulatory Care Center only

This scenario, included in the original SOW, expands ambulatory care services on site without adding Medical/Surgical Inpatient beds.

Minimum Required Infrastructure Improvements “Bare Bones”

Recognizing that much of the infrastructure of the current facility is failing, this scenario was introduced in the October 18th meeting to identify the cost of replacing the campus infrastructure with new systems.

Planning Scenarios (Basis of Planning) - Continued

All scenarios except the “Bare Bones” scenario include Inpatient Mental Health Unit of 12 to 15 beds, a 15 – 30 bed RRTP site, Long Term Care (CLC), and growth in Specialty Care.

All scenarios will consider on-site development only and include RRTP, Domiciliary, Inpatient Psychiatric, and Community Living Center Beds. Off-site concepts and scenarios are not a part of this project scope.

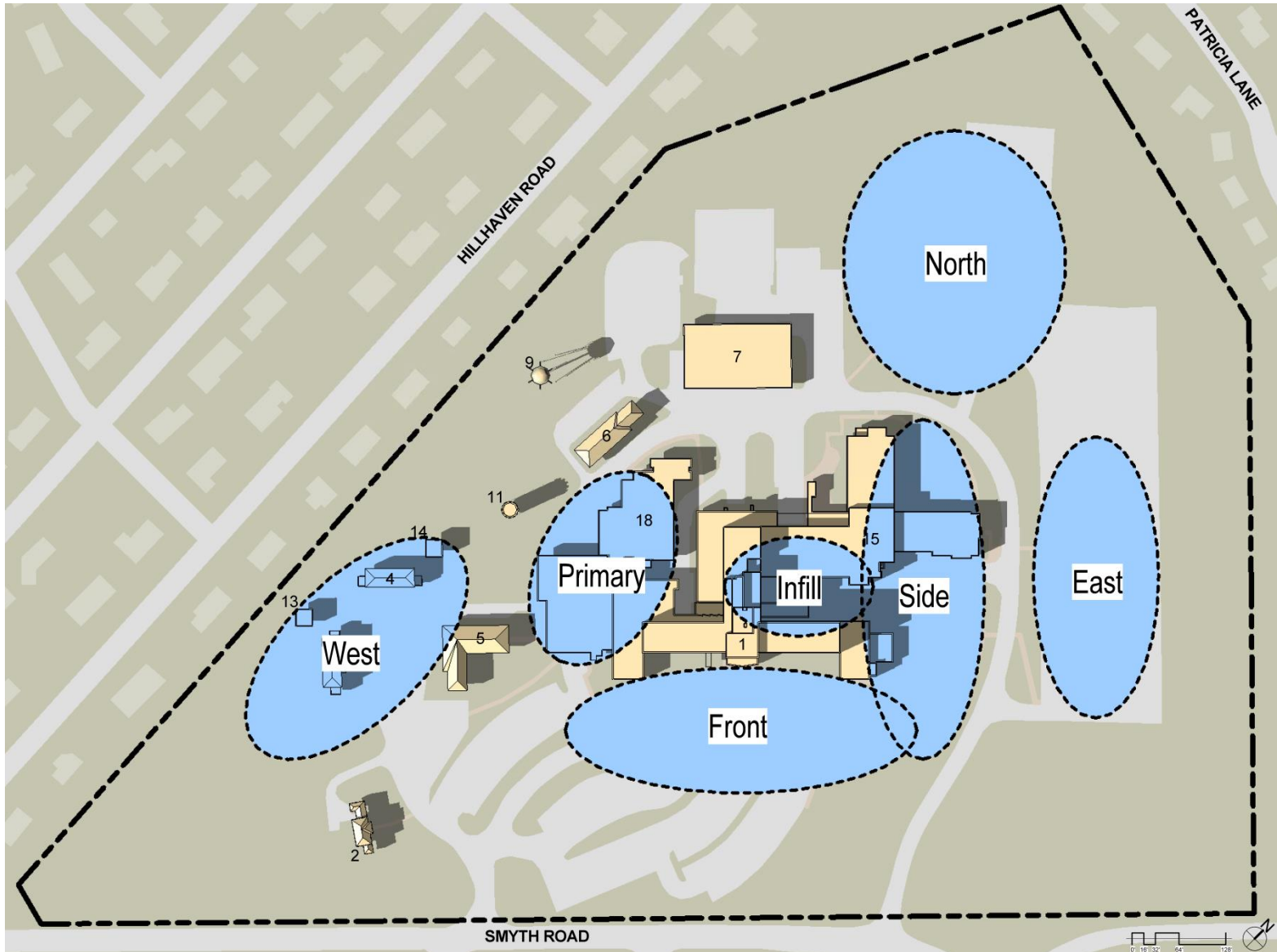
Program Summary

	Department Area Need			Existing		Comments
	Full M/S	Subacute	ACC	Area	As % of Need	
BEDS						
Acute M/S & ICU (25 Beds)	23,500	0	0	0	0%	
Subacute Beds (15 Beds)	0	12,225	0	0	0%	
IP Mental Health (12 Beds)		9,000		0	0%	
RRTP (30 Beds)						
- Chronic Pain (12 Beds)		5,400		0	0%	
- Substance Abuse (12 Beds)		5,400		0	0%	
- PTSD (12 Beds)		2,700		0	0%	
Domiciliary (20 Beds)		9,000		0	0%	
CLC (46 Beds)		40,626		13,533	33%	
OUTPATIENT & D&T						
ORs/Endoscopy/SPD	34,930	26,630		11,262	32%	% of Full M/S Need
Radiology		18,100		0	0%	
Lab		11,283		5,982	53%	
ED/Urgent Care	9,000	7,500		4,955	55%	% of Full M/S Need
Primary Care		41,534		17,064	41%	Area Need Includes CBOCs
Specialty Care		94,821		44,213	47%	Area Need Includes CBOCs
Outpatient Mental Health		20,500		13,800	67%	Area Need Includes CBOCs
SUPPORT						
Support Departments	79,336	71,711	65,213	39,131	49%	% of Full M/S Need
Admin & Education	37,460	29,088	26,732	28,750	77%	% of Full M/S Need
Swing Space	8,737	7,862	7,225	0	0%	
Total Department Area	442,327	404,379	382,664	178,690	40%	% of Full M/S Need
Building Gross @ 45%	199,047	181,971	172,199			
Total Building Need	641,375	586,350	554,863			

VISN 1



Review of Planning Options



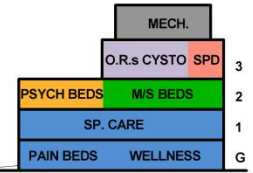
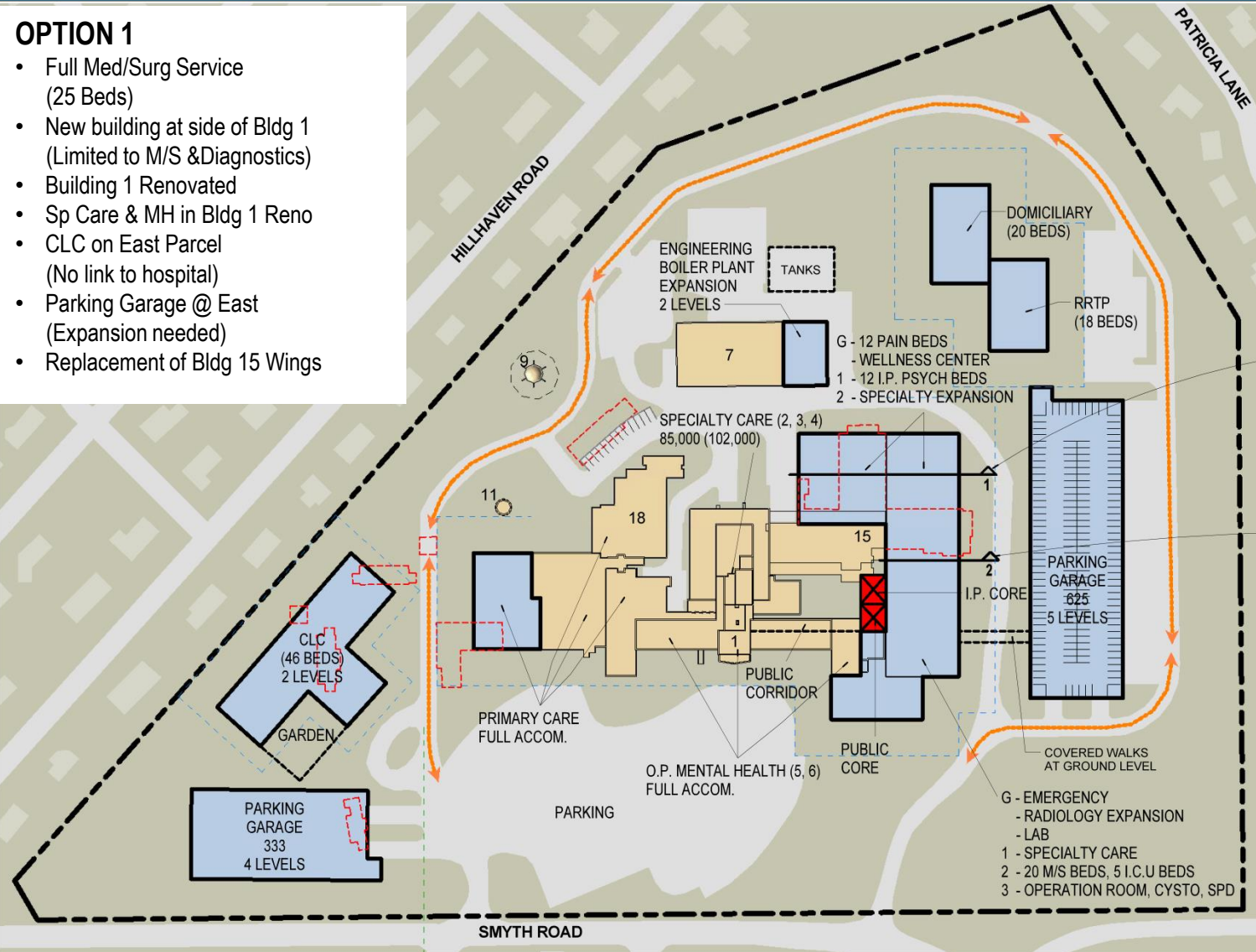
	PROGRAM	EXPANSION SITE	KEEP/DEMO BUILDING 1	COMMENTS
IA1	FULL SERVICE	FRONT	KEEP	SPECIALTY CARE SPACE COMPROMISED IN BUILDING 1 ★
IA2			DEMO	VERY DIFFICULT - NOT PRACTICAL
IB1		SIDE	KEEP	NEED TO VACATE BUILDING 15. SPECIALTY CARE SPACE COMPROMISED IN BUILDING 1 ★
IB2			DEMO	VERY DIFFICULT - NOT PRACTICAL
IC1		FRONT & SIDE	DEMO	NEED TO VACATE BUILDING 15 ALL PROGRAMS ACCOMMODATED IN NEW CONSTRUCTION ★
IIA1	SUB ACUTE MED SURG	FRONT	KEEP	SPECIALTY CARE SPACE COMPROMISED IN BUILDING 1 ★
IIA2			DEMO	VERY DIFFICULT TO ACHIEVE - NOT PRACTICAL
IIB1		SIDE	KEEP	NEED TO VACATE BUILDING 15 SPECIALTY CARE SPACE COMPROMISED IN BUILDING 1
IIB2			DEMO	VERY DIFFICULT TO ACHIEVE - NOT PRACTICAL
IIC1		FRONT & SIDE	DEMO	NEED TO VACATE BUILDING 15 ALL PROGRAMS ACCOMMODATED IN NEW CONSTRUCTION
IIIA1	ACC	FRONT	KEEP	NEW SPECIALTY CARE SPACE ADMIN AND SUPPORT FULLY ACCOMMODATED IN BUILDING 1 ★
IIIA2			DEMO	DIFFICULT TO ACHIEVE
IIIB1		SIDE	KEEP	NEED TO VACATE BUILDING 15 SIDE NOT BEST PUBLIC ACCESS FOR CLINIC SPACE
IIIB2			DEMO	DIFFICULT TO ACHIEVE NEED TO VACATE BUILDING 15
IIIC1		FRONT & SIDE	DEMO	NEED TO VACATE BUILDING 15 ALL PROGRAMS ACCOMMODATED IN NEW CONSTRUCTION ★

OPTION 1

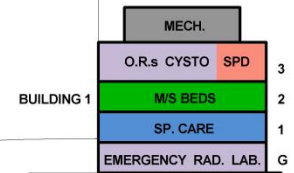
- Full Med/Surg Service (25 Beds)
- New building at side of Bldg 1 (Limited to M/S & Diagnostics)
- Building 1 Renovated
- Sp Care & MH in Bldg 1 Reno
- CLC on East Parcel (No link to hospital)
- Parking Garage @ East (Expansion needed)
- Replacement of Bldg 15 Wings

FULL SVC SIDE SITE

1



SECTION 1



SECTION 2

- Existing Building
- New Addition
- Demolition
- Physical Security Standoff

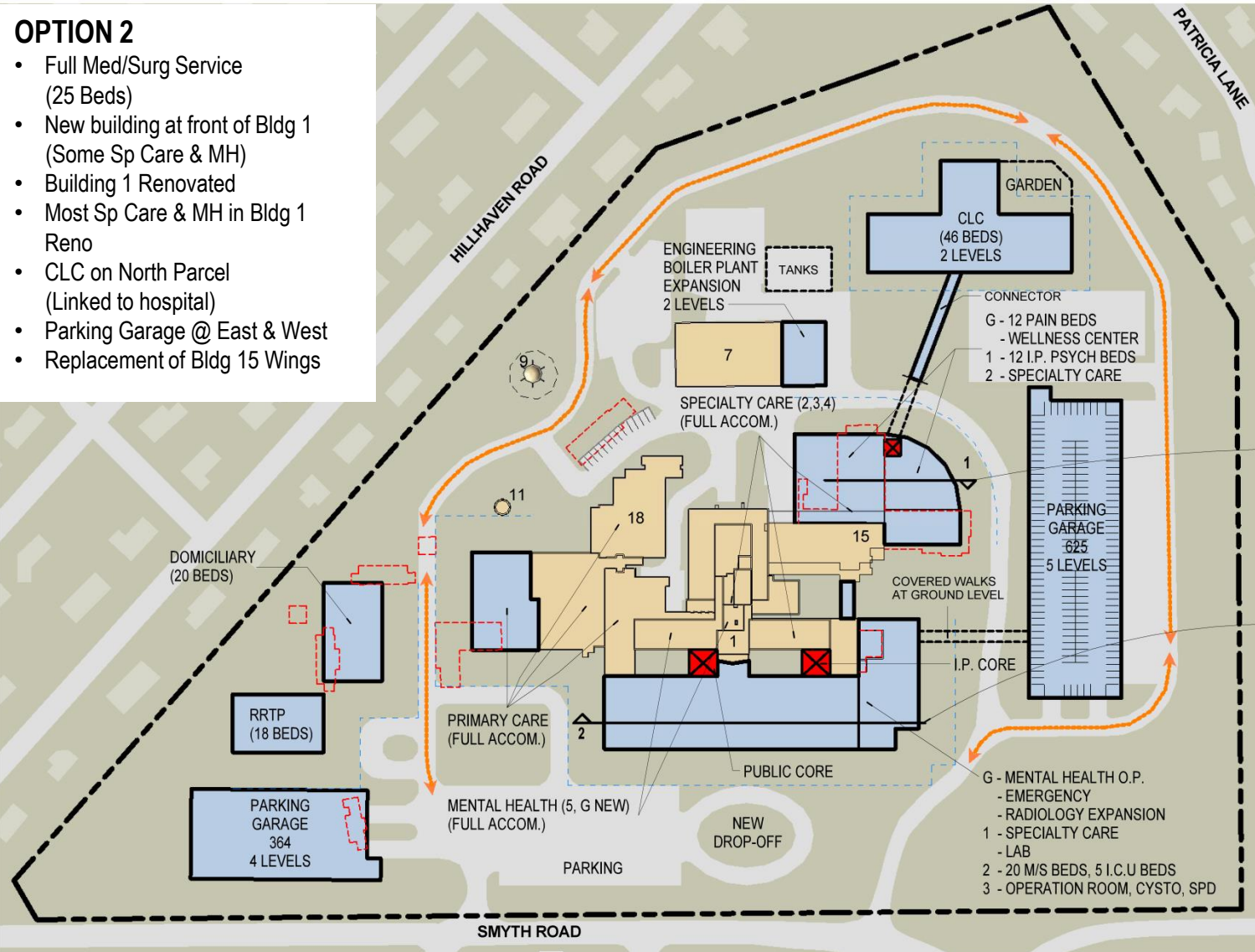
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OPTION 2

- Full Med/Surg Service (25 Beds)
- New building at front of Bldg 1 (Some Sp Care & MH)
- Building 1 Renovated
- Most Sp Care & MH in Bldg 1 Reno
- CLC on North Parcel (Linked to hospital)
- Parking Garage @ East & West
- Replacement of Bldg 15 Wings

FULL SVC FRONT SITE 2



S.P. CARE	2
I.P. PSYC	1
I.P. PAIN WELLNESS	G

SECTION 1

MECH.			
O.R.s / CYSTO	S.P.D.		
MED. SURG. BEDS			
SP. CARE	LOBBY	SP. CARE	LAB.
M. HEALTH	MECH.	EMERGENCY	RAD.

SECTION 2

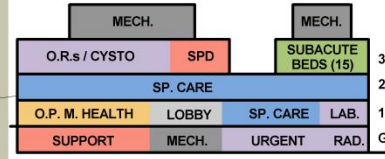
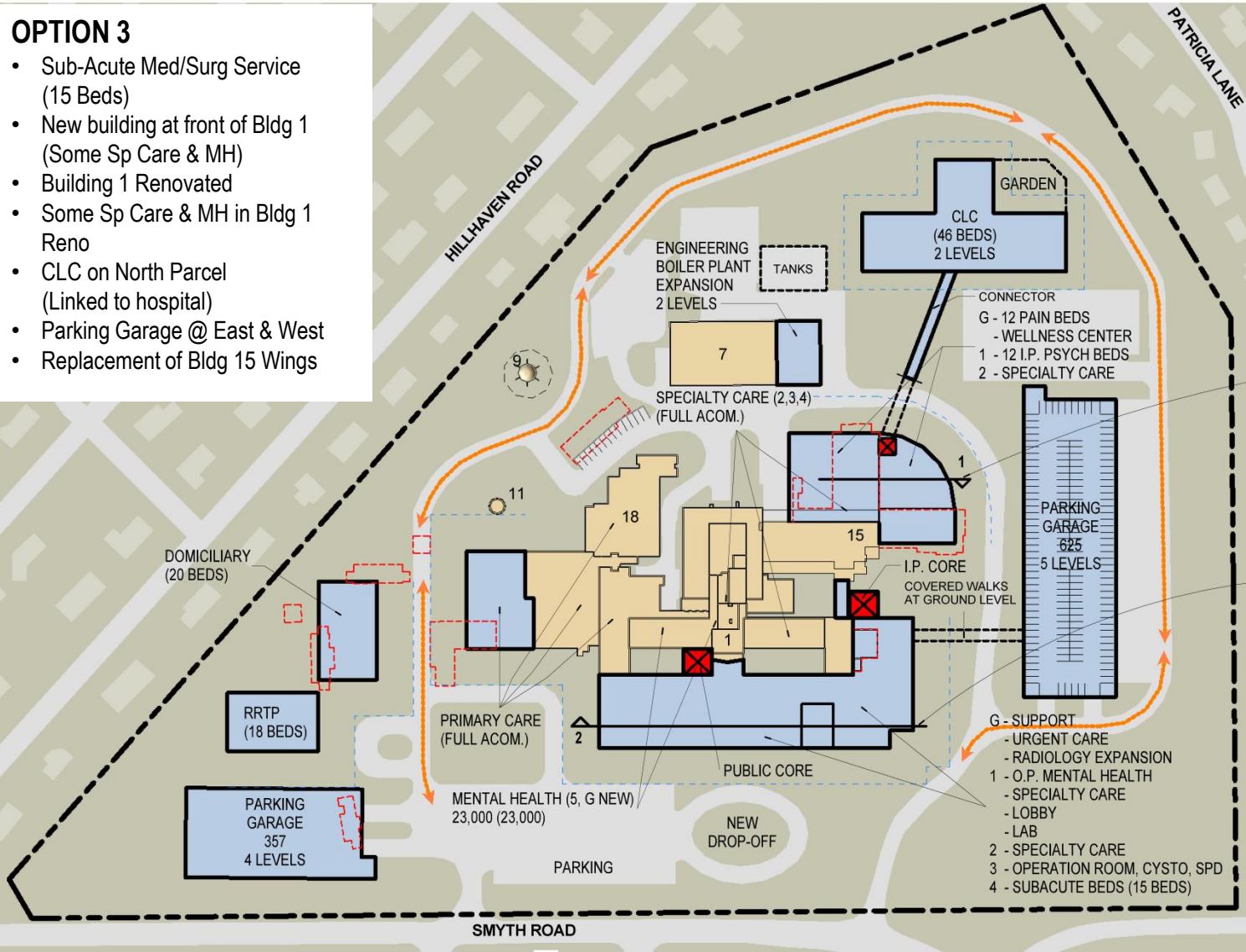
- Existing Building
- New Addition
- Demolition
- Physical Security Standoff

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 0 15' 30' 60' 120'

OPTION 3

- Sub-Acute Med/Surg Service (15 Beds)
- New building at front of Bldg 1 (Some Sp Care & MH)
- Building 1 Renovated
- Some Sp Care & MH in Bldg 1 Reno
- CLC on North Parcel (Linked to hospital)
- Parking Garage @ East & West
- Replacement of Bldg 15 Wings

SUBACUTE FRONT SITE 3



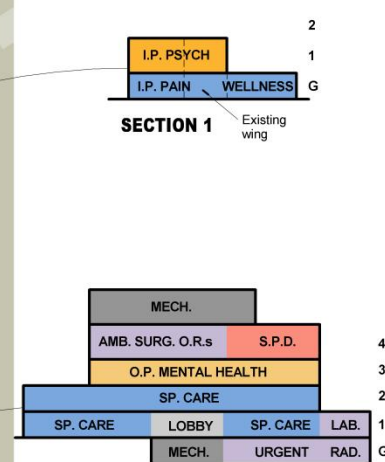
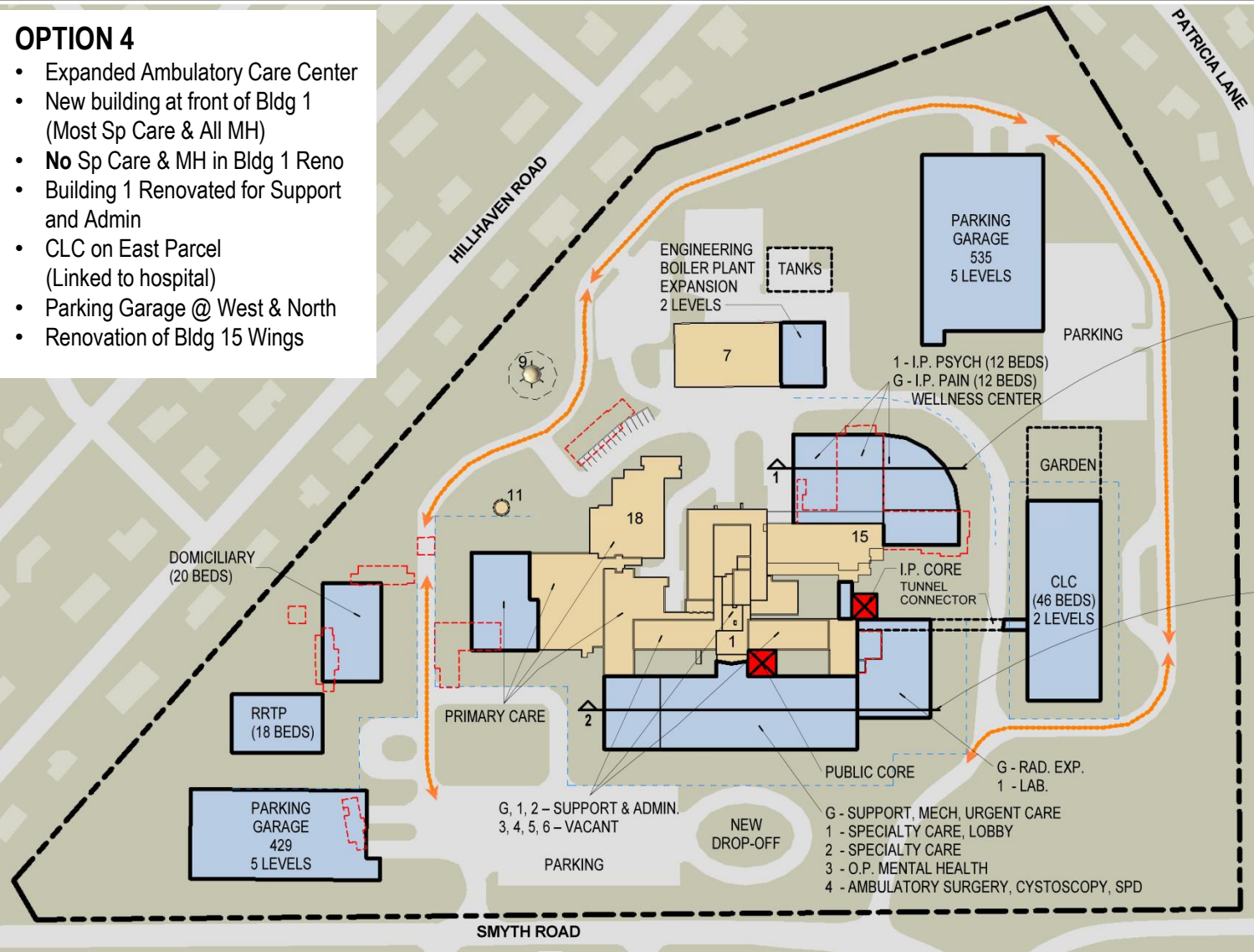
- Existing Building
- New Addition
- Demolition
- Physical Security Standoff

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OPTION 4

- Expanded Ambulatory Care Center
- New building at front of Bldg 1 (Most Sp Care & All MH)
- No Sp Care & MH in Bldg 1 Reno
- Building 1 Renovated for Support and Admin
- CLC on East Parcel (Linked to hospital)
- Parking Garage @ West & North
- Renovation of Bldg 15 Wings

ACC FRONT SITE 4



- Existing Building
- New Addition
- Demolition
- Physical Security Standoff

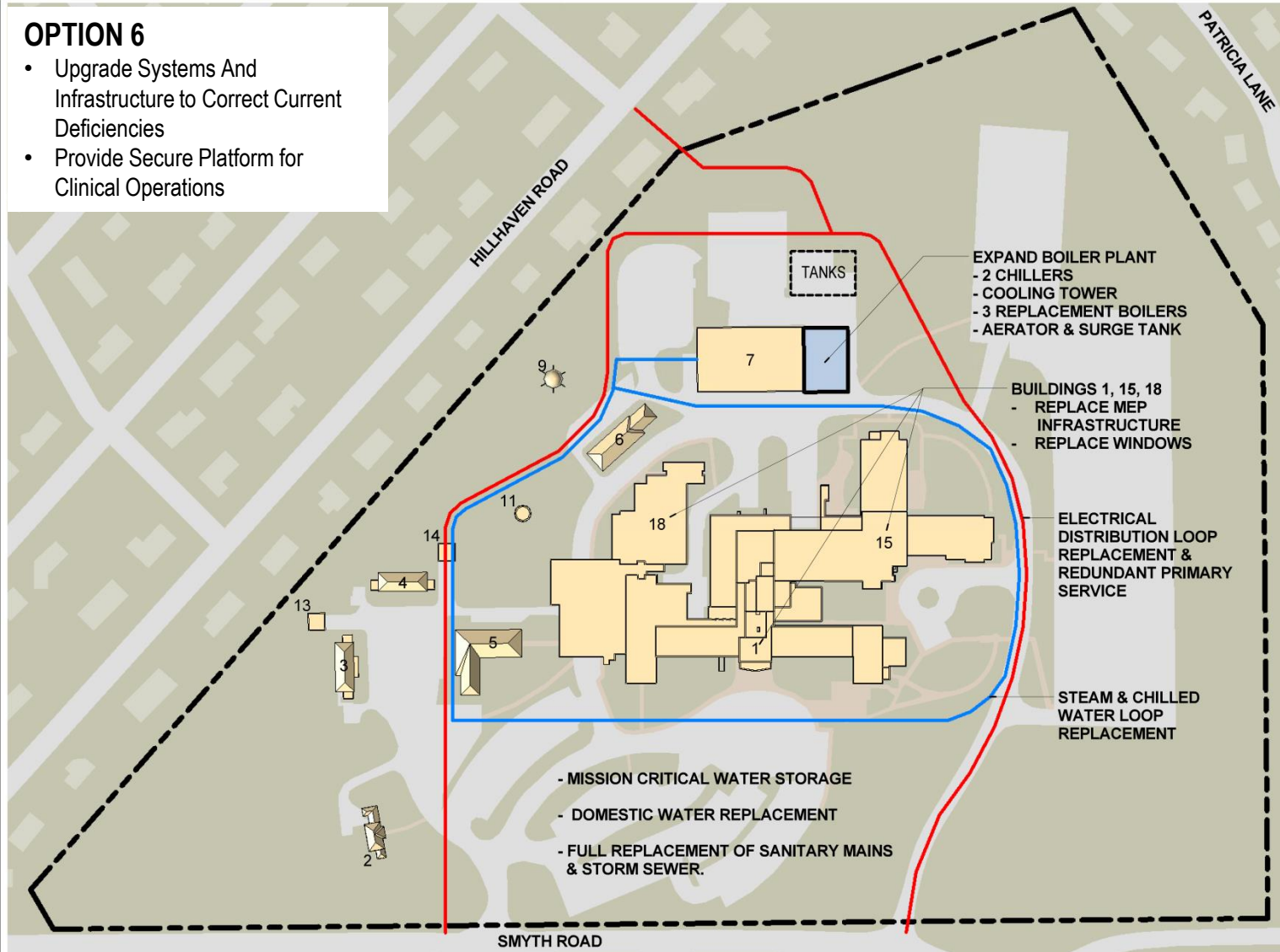
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BARE BONES

OPTION 6

- Upgrade Systems And Infrastructure to Correct Current Deficiencies
- Provide Secure Platform for Clinical Operations

Building Key	
1	Main Hospital
2	Quarters
3	A&MM/Fiscal Services
4	HRMS/Quarters
5	HRMS/DSS
6	HRMS/Quarters
7	Boiler Plant
9	Water Tower
11	Smyth Tower
13	Storage Building
14	Storage Building
15	NHCU
18	Ambulatory Care



- Existing Building
- New Addition
- Steam & Chilled Water Loop
- Electrical Loop

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Note: Infrastructure and Systems Improvements are Typical for all Options

Mission Critical/Continuity of Operations

- Project Specific Compliance vs. Global Compliance
- Mission Critical Utility Storage
 - Potable Water
 - Industrial Water
 - Fire Protection Water
 - Wastewater
 - Contaminated Water
 - Fuel

Utility Distribution System Replacement

- Replacement of Storm, Sanitary, & Water Distribution Systems
 - Identified by FCA to have exceeded useful life
 - To meet additional demands placed on systems by new buildings & additions
 - To provide service to new buildings provided on outer areas of Campus

VISN 1



Comparison of Options





Advantages

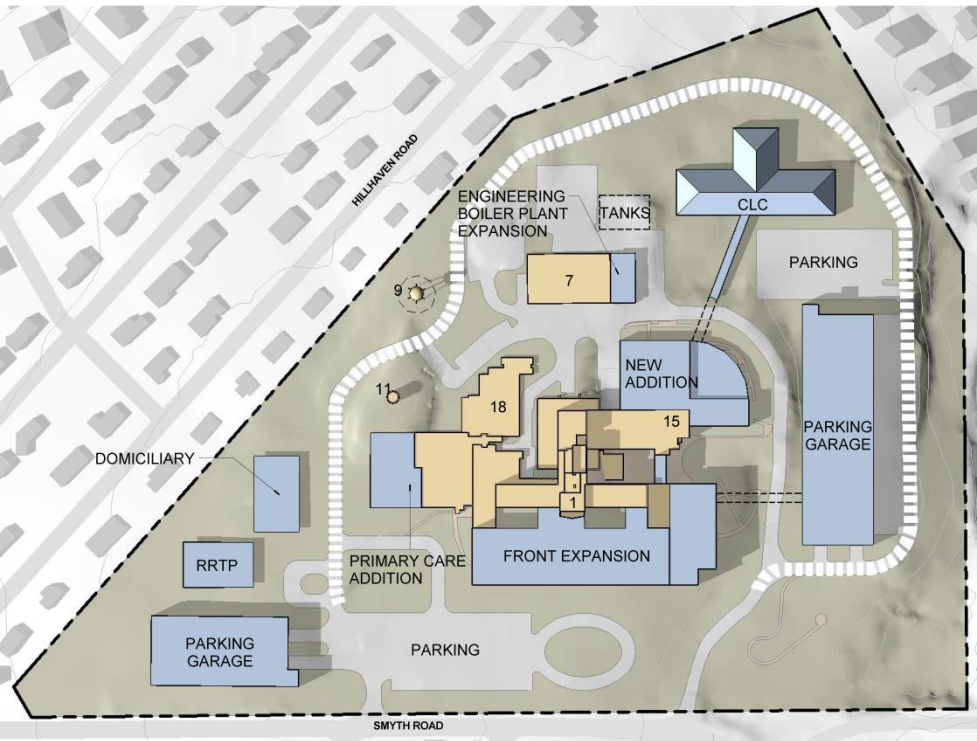
- Less site disruption than Option 2-5
- Full Med Surg. Program (New Const.)
- Additional Parking
- Enhanced Infrastructure
- Improved Services

Disadvantages

- Substandard clinic space in Building 1
- Clinical addition remote from Main Entry

Projected Cost - \$ 512.3 M

Duration - 7 Years



Advantages

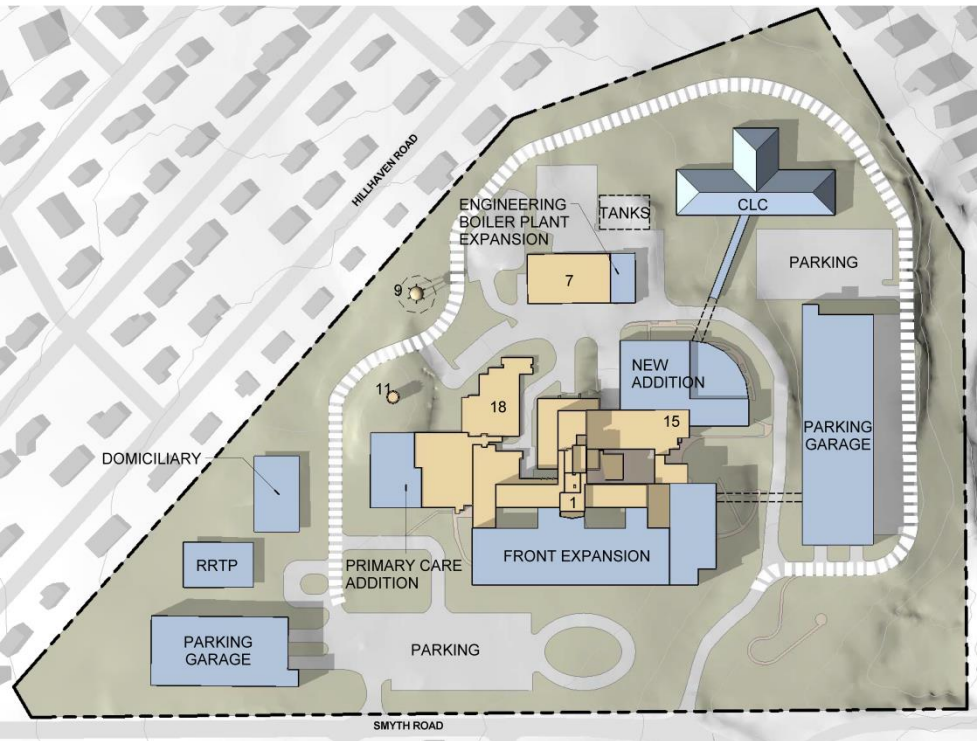
- New front image for Medical Center
- Full Med Surg. Program (New Const.)
- Additional Parking
- Enhanced Infrastructure
- Improved Services

Disadvantages

- Substandard clinic space in Building 1
- Additional site disruption and longer schedule than Option 1

Projected Cost - \$ 516.2 M

Duration - 8 Years



Advantages

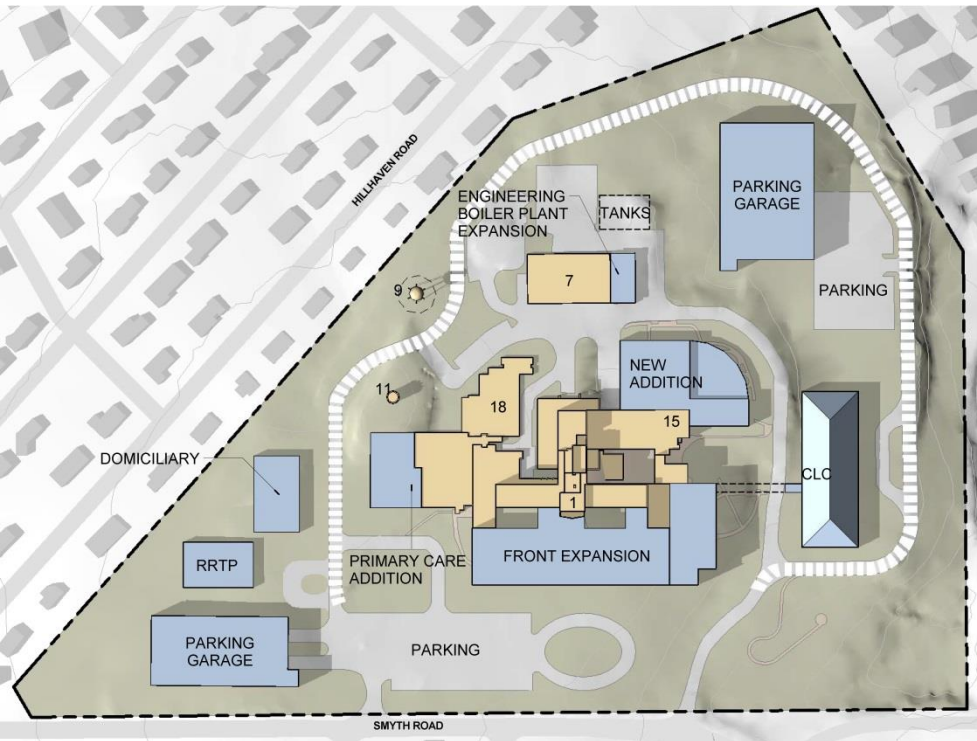
- New front image for Medical Center
- Additional Parking
- Enhanced Infrastructure
- Improved Services

Disadvantages

- Substandard clinic space in Building 1
- Additional Site disruption and longer schedule

Projected Cost - \$ 498.0 M

Duration - 8 Years



Advantages

- All clinics in new building
- New front image for Medical Center
- Additional Parking
- Enhanced Infrastructure
- Improved Services

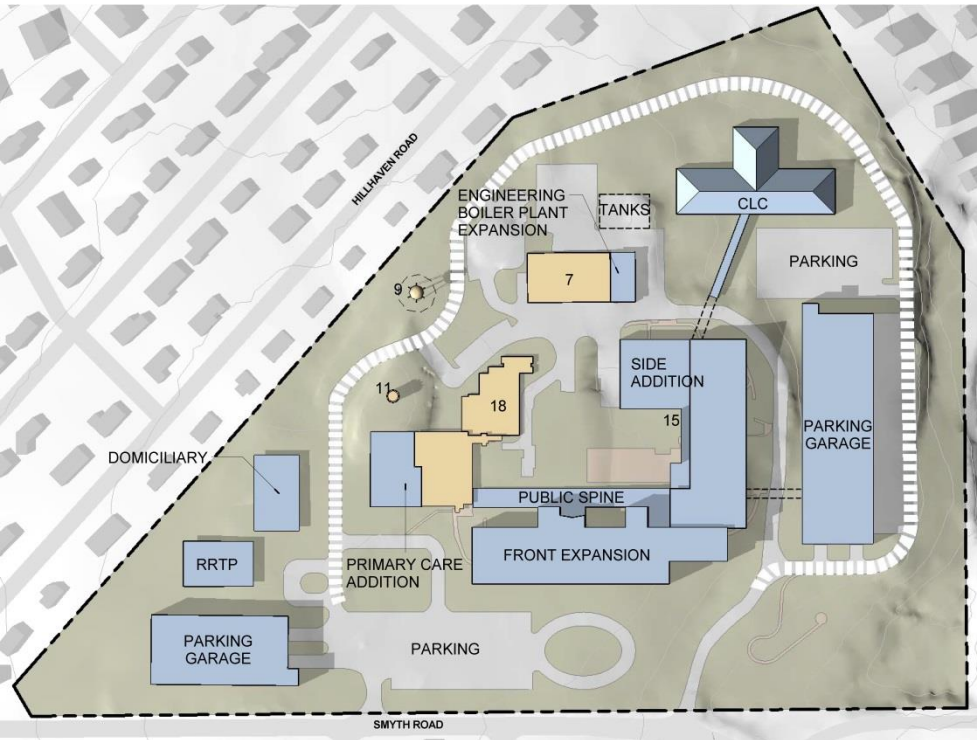
Disadvantages

- Additional site disruption
- Several Building 1 floors remain vacant

Projected Cost - \$ 467.1 M

Duration - 7 Years

Manchester VAMC Planning Options Full Service M/S Replace Building 1 (Option 5)



Advantages

- All programs in new building
- Building 1 no longer a liability
- Best option for improved space and flexibility
- Full Med Surg. Program (New Const.)
- Additional Parking
- Enhanced Infrastructure
- Improved Services

Disadvantages

- Most expensive Full Service option
- Additional Site disruption
- Longer Schedule than Option 1

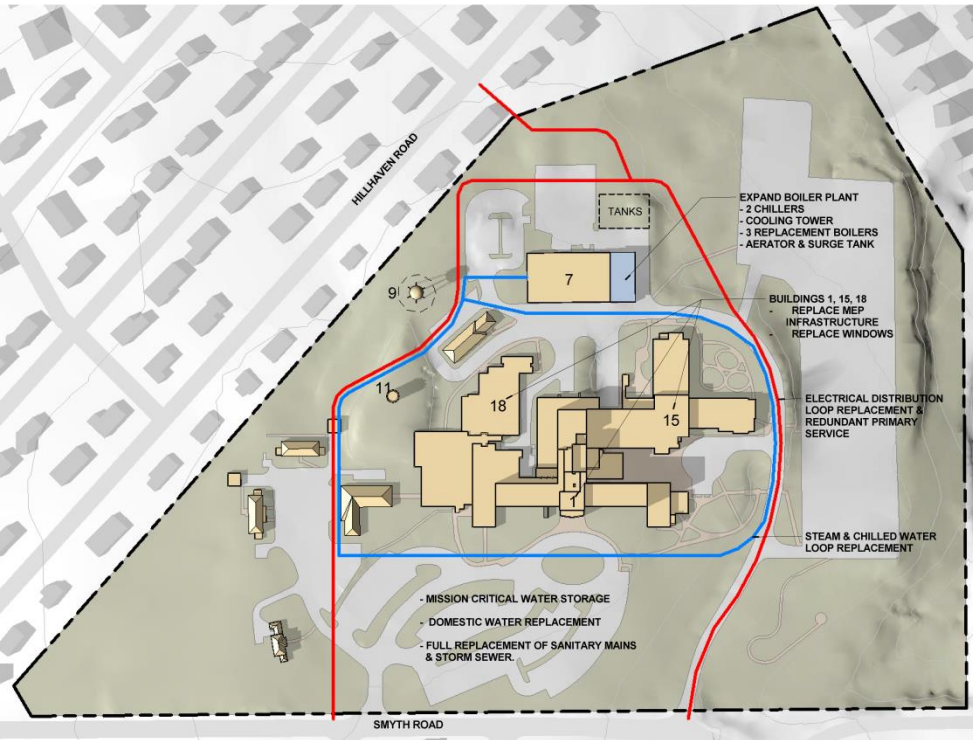
5a Projected Cost - \$ 621.7 M

Duration - 8 Years

5b Projected Cost - \$ 559.3 M

Duration - 8 Years





Advantages

- Least expensive option
- Least site disruption
- Enhanced Infrastructure

Disadvantages

- Growth in Clinical Programs not accommodated
- Lack of swing space for phasing
- Most disruptive to clinical service operations
- Space Gap will be increased by projected clinical program growth
- Clinical space remains substandard in existing aged facility
- No added parking

Projected Cost - 122.9 M

Duration - 3 - 4 Years

VISN 1



Cost / Scheduling



Options 1 Cost and Schedule Summary

\$ 512.3 M

All Costs are preliminary and conservative. All Options will likely be adjusted and may increase upon development of final deliverable.

VISN 1 - VAMC Manchester, NH - Option 1 - Full Service Side Site - Schedule								
PROJECT	COST(\$ M)	2018	2019	2020	2021	2022	2023	2024
Demolition of Bldgs. 2, 3, 4, 5, 13, & 14	\$2.1	Demo < Phase 1						
Demolition of Bldgs. 6, 15 (Wings) & 20	\$2.7			Demo < Phase 2				
Phase 1 Design	\$13.3	Phase 1 Design						
West Parking Garage	\$13.1		Garage Construction					
Site Utilities & Loop Rd	\$52.5		Site Utilities/Loop Rd					
Community Living Center	\$28.5		CLC Construction					
East Parking Garage	\$25.0			Garage Construction				
East Parking Deck Connector	\$0.6				Connector			
Phase 2 Design	\$22.2			Phase 2 Design				
New Expansion, Side	\$185.0				Side Construction			
Engineering Boiler Plant Expansion	\$15.1					BP Expansion		
Phase 3 Design	\$13.1				Phase 3 Design			
Building 1 Renovation	\$96.6						B1 Renov	
Building 15 Renovation	\$11.5						B15 Renov	
Building 18 Renovation	\$10.0						B18 Renov	
Phase 4 Design	\$2.1					Phase 4 Design		
Primary Care Addition	\$8.2						PC Addition	
RRTP	\$5.1						RRTP Construction	
Domiciliary	\$5.5						Domiciliary	



Options 2 Cost and Schedule Summary

\$ 516.2 M

All Costs are preliminary and conservative. All Options will likely be adjusted and may increase upon development of final deliverable.

VISN 1 - VAMC Manchester, NH - Option 2 - Full Service Front Site - Schedule									
PROJECT	COST (\$ M)	2018	2019	2020	2021	2022	2023	2024	2025
Demolition of Bldgs. 2, 3, 4, 5, 13, & 14	\$1.9	Demo < Phase 1							
Demolition of Bldgs. 6, 15 (Wings) & 20	\$2.9				Demo < Phase 2				
Phase 1 Design	\$28.9	Phase 1 Design							
West Parking Garage (4 Lvl/364)	\$14.1		West Garage						
Site Utilities & Loop Rd	\$52.5		Site Utilitis/Loop Rd						
Community Living Center (2 Lvl/48 Beds)	\$30.4			CLC Construction					
CLC Connector	\$1.2				Connector				
New Expaision, Front	\$161.5					Front Expansion			
Phase 2 Design	\$8.7		Phase 2 Design						
East Parking Garage	\$25.9			East Garage Construction					
East Parking Garage Connector	\$0.9				Connector				
New Construction Bldg 15	\$35.7					Bldg 15 New Construction			
Engineering Boiler Plant Expansion	\$15.6					BP Expansion			
Phase 3 Design	\$11.7					Phase 3 Design			
Building 1 Renovation	\$75.2						B1 Renov		
Building 15 Renovation	\$15.8						B15 Renov		
Building 18 Renovation	\$14.1							B18 Renov	
Phase 4 Design	\$1.9						Phase 4 Design		
Primary Care Addition	\$8.73								PC Addition
Domiciliary	\$3.24								Domiciliary
R RTP	\$5.40								R RTP



Options 3 Cost and Schedule Summary

\$ 498.0 M

All Costs are preliminary and conservative. All Options will likely be adjusted and may increase upon development of final deliverable.

VISN 1 - VAMC Manchester, NH - Option 4 - ACC Front Site - Schedule								
PROJECT	COST(\$ M)	2018	2019	2020	2021	2022	2023	2024
Demolition of Bldgs. 2, 3, 4, 5, 6, 13, 14, & 20	\$2.5	Demo < Phase 1						
Demolition of Bldgs. 6, 15 (Wings) & 20	\$2.3			Demo < Phase 2				
Phase 1 Design	\$29.1	Phase 1 Design						
Parking Garage (West)	\$16.7		W Garage Construction					
Site Utilities & Loop Rd	\$52.5		Site Utilities/Loop Rd					
Community Living Center	\$30.4			CLC Construction				
Community Living Center Connector	\$0.6				Connector			
New Addition, Front	\$162.0			New Front Addition				
Phase 2 Design	\$7.4			Phase 2 Design				
Boiler Plant Expansion	\$15.1				BP Expansion			
New Construction Bldg 15	\$29.7				Bldg 15 New Construction			
East Parking Garage	\$22.1				East Parking Garage			
Phase 3 Design	\$9.7				Phase 3 Design			
RRTP	\$5.0					RRTP Construction		
Primary Care Addition	\$7.9					PC Addition		
Domiciliary	\$5.4					Domiciliary		
Building 1 Renovations	\$42.4						B1 Renov	
Building 15 Renovations	\$12.2						B15 Renov	
Building 18 Renovations	\$14.1							B18 Renov



Options 4 Cost and Schedule Summary

\$ 467.1 M

All Costs are preliminary and conservative. All Options will likely be adjusted and may increase upon development of final deliverable.

VISN 1 - VAMC Manchester, NH - Option 4 - ACC Front Site - Schedule								
PROJECT	COST(\$ M)	2018	2019	2020	2021	2022	2023	2024
Demolition of Bldgs. 2, 3, 4, 5, 6, 13, 14, & 20	\$2.5	Demo < Phase 1						
Demolition of Bldgs. 6, 15 (Wings) & 20	\$2.3			Demo < Phase 2				
Phase 1 Design	\$29.1	Phase 1 Design						
Parking Garage (West)	\$16.7		W Garage Construction					
Site Utilities & Loop Rd	\$52.5		Site Utilities/Loop Rd					
Community Living Center	\$30.4			CLC Construction				
Community Living Center Connector	\$0.6				Connector			
New Addition, Front	\$162.0			New Front Addition				
Phase 2 Design	\$7.4			Phase 2 Design				
Boiler Plant Expansion	\$15.1				BP Expansion			
New Construction Bldg 15	\$29.7				Bldg 15 New Construction			
East Parking Garage	\$22.1				East Parking Garage			
Phase 3 Design	\$9.7				Phase 3 Design			
RRTP	\$5.0					RRTP Construction		
Primary Care Addition	\$7.9					PC Addition		
Domiciliary	\$5.4					Domiciliary		
Building 1 Renovations	\$42.4						B1 Renov	
Building 15 Renovations	\$12.2						B15 Renov	
Building 18 Renovations	\$14.1							B18 Renov



Options 5 Cost and Schedule Summary

\$ 621.7 M

All Costs are preliminary and conservative. All Options will likely be adjusted and may increase upon development of final deliverable.

VISN 1 - VAMC Manchester, NH - Option 5 - Full Service Replacement - Schedule									
PROJECT	COST (M)	2018	2019	2020	2021	2022	2023	2024	2025
Demolition of Bldgs. 2, 3, 4, 5, 6, 13, 14, & 20	\$4.7	Demolition							
Phase 1 Design	\$29.9	Phase 1 Design							
West Parking Garage	\$14.1		West Garage Construction						
Site Utilities & Loop Rd	\$52.5		Site Utilities/Loop Rd						
Community Living Center	\$30.4			CLC Construction					
Community Living Center Connector	\$1.2				Connector				
New Addition, Front & Side	\$170.6			New Front Addition					
Phase 2 Design	\$3.1			Phase 2 Design					
Boiler Plant Expansion	\$15.1				BP Expansion				
Vacate & Demolish Building 15	\$12.4					Demolition			
Phase 3 Design	\$19.0					Phase 3 Design			
Construct Side Addition	\$170.6						Side Addition		
Demolish Building 1	\$13.1						Demolition		
Phase 5 Design	\$1.5						Phase 5 Design		
Construct Public Link and Plaza	\$13.5							Link Construction	
Phase 6 Design	\$7.0						Phase 6 Design		
Primary Care Addition	\$8.5							PC Addition	
RRTP	\$5.3							RRTP Construction	
Domiciliary	\$5.8							Domiciliary	
East Parking Garage	\$28.4							East Garage Construction	
East Parking Garage Connector	\$0.6								Connector
Bldg 18 Renovation	\$14.6								Bldg 18



VISN 1



Questions / General Discussion

