

NEW MEXICO BIOSCIENCE AUTHORITY

FEASIBILITY STUDY, WET & DRY LAB AND SHARED OFFICE FACILITY

VOLUME II
JULY 31, 2026

LIVING DOCUMENT

fbt | architects

SMITHGROUP



NEW MEXICO
BIOSCIENCE
AUTHORITY
A BIOSCIENCE CENTER OF EXCELLENCE



PROJECT TEAM

CLIENT GROUP

NEW MEXICO BIOSCIENCE AUTHORITY

ARCHITECTURE

FBT ARCHITECTS
SMITHGROUP

CIVIL ENGINEERING

BOWMAN CONSULTING

STRUCTURAL ENGINEERING

WALLA ENGINEERING

MEP ENGINEERING

SMITHGROUP

FIRE ALARM/FIRE PROTECTION

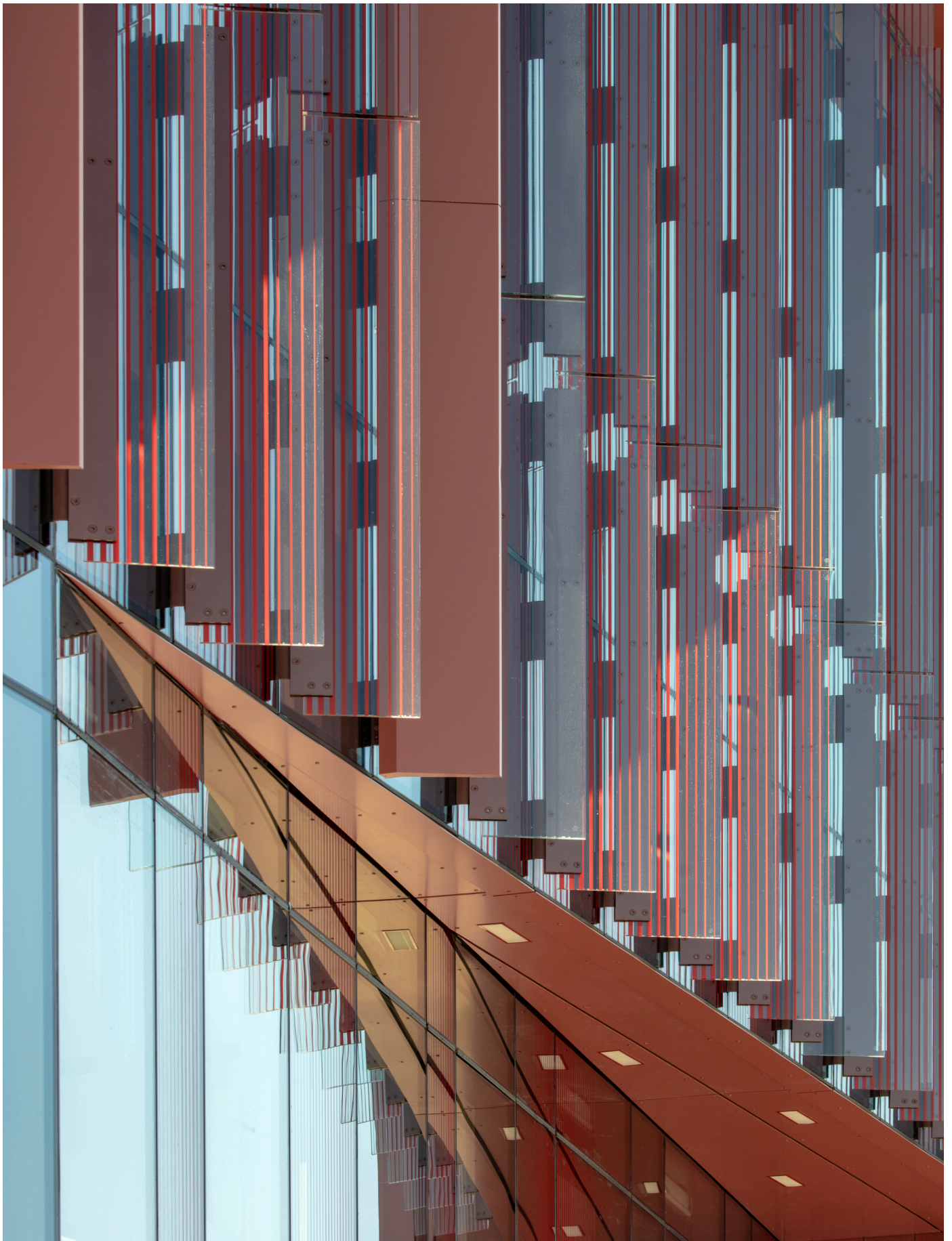
SMITHGROUP

LABORATORY PLANNING

SMITHGROUP

INDEPENDENT COST ESTIMATOR

BALIS & CO.



UNIVERSITY OF ARIZONA APPLIED RESEARCH BUILDING - TUSCON, AZ

TABLE OF CONTENTS

VOLUME II

12. DETAILED PROGRAM TABLES	121
13. WORKSHOP PRESENTATIONS AND NOTES	125
14. COST MODEL BACKUP	232
15. CONCEPT DIAGRAMS AND GRAPHICS	248
16. ECONOMIC IMPACT DATA	255

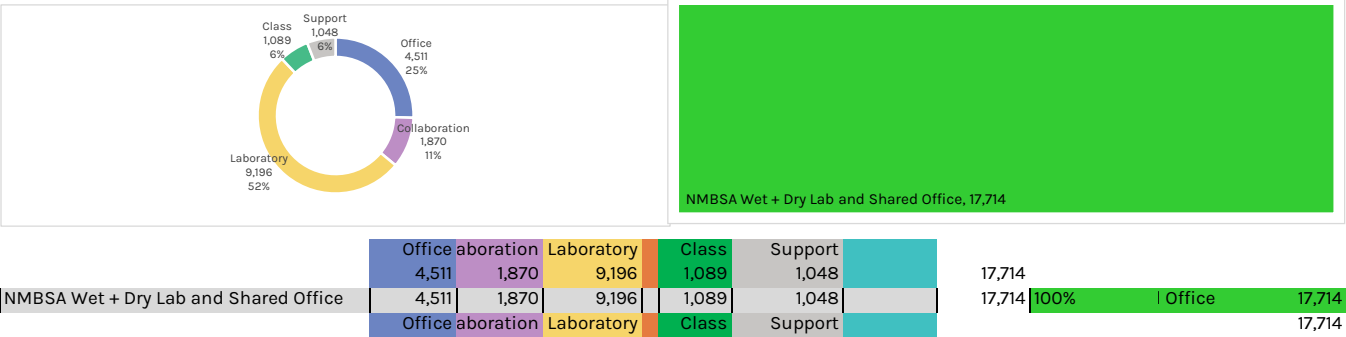
CHAPTER 12

DETAILED PROGRAM TABLES

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~40,000 GSF BUILDING)

Facility Summary	Staff	Efficiency	Total ASF	Total GSF
NMBSA Wet + Dry Lab and Shared Office	81	62%	17,714	28,571
Mixed Use - Shell (Or Additional Future Lab)		62%	2,500	4,032
Mixed Use - Shell		62%	4,000	6,452
Facility TOTAL	81	62%	24,214	39,055

NMBSA Wet + Dry Lab and Shared Office	Staff	Total NSF	Total ASF	Total GSF
NMBSA Wet + Dry Lab and Shared Office	81	16,673	17,714	
Mixed Use Ground floor Shell (Retail + Additional Lab)		6,500	6,500	
Sub-total NSF and ASF	81	23,173	24,214	
Building Efficiency		62%		39,055



NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~40,000 GSF BUILDING)

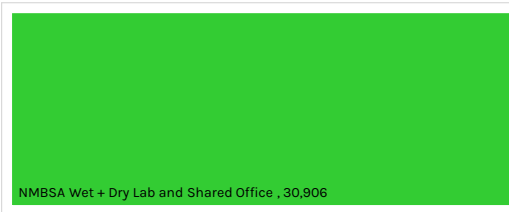
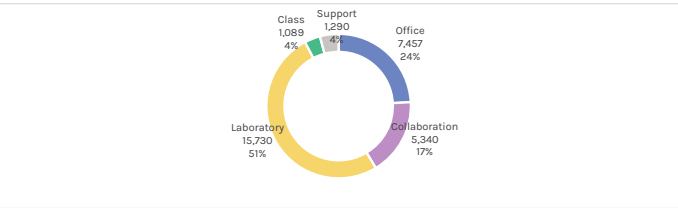
NMBSA Wet + Dry Lab and Shared Office

Space Name	Staff	NSF	Qty.	Total NSF	Mult.	ASF	Total ASF	Comments
Office								
Building Management Office	5	62	5	310	1.3	403		
Tenant Office - Single	10	62	10	620	1.3	806		
Tenant Office - 2PPL	16	95	8	760	1.3	988		
Tenant Office - 3PPL	18	120	6	720	1.3	936		
Tenant Office - 5PPL	20	190	4	760	1.3	988		
Shared Work Area	12	25	12	300	1.3	390		
Sub-Total	81			3,470			4,511	
Collaboration								
Entry Lobby		600	1	600	1.0	600		
Break Room		250	2	500	1.0	500		
Open Huddle		120	1	120	1.0	120		
Conference - Small		120	1	120	1.0	120		
Conference - Medium		240	2	480	1.0	480		
Conference - Large		500	0	0	1.0	0		
Phone/Focus		25	2	50	1.0	50		
Sub-Total	0			1,870			1,870	
Classroom								
40-Person Classroom		1,089	1	1,089	1.0	1,089		
Sub-Total	0			1,089			1,089	
Laboratory								
Lab Sm		363	4	1,452	1.0	1,452		
Lab Med		726	3	2,178	1.0	2,178		
Lab Large		1,089	4	4,356	1.0	4,356		
Lab Support		242	3	726	1.0	726		
Showcase Lab		484	1	484	1.0	484		
Sub-Total	0			9,196			9,196	
Support								
Shared Support		242	2	484	1.0	484		
Staging		242	1	242	1.0	242		
Chemical Storage		121	1	121	1.0	121		
Bio Waste		121	1	121	1.0	121		
Wellness Room		80	1	80	1.0	80		
Sub-Total	0			1,048			1,048	
TOTAL	81			16,673			17,714	

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~67,000 GSF BUILDING)

Facility Summary				Staff	Efficiency			Total ASF		Total GSF
NMBSA Wet + Dry Lab and Shared Office				143	62%			30,906		49,848
Mixed Use - Shell (Or Additional Future Lab)					62%			5,500		8,871
Mixed Use - Shell					62%			5,000		8,065
Facility TOTAL				143	62%			41,406		66,784

NMBSA Wet + Dry Lab and Shared Office	Staff	Total NSF	Total ASF	Total GSF
NMBSA Wet + Dry Lab and Shared Office	143	29,185	30,906	
Mixed Use Ground floor Shell (half Retail + half Additional Lab)		10,500	10,500	
Sub-total NSF and ASF	143	29,185	41,406	
Building Efficiency (Average)		62%		66,784



	Office	collaboration	Laboratory	Class	Support		30,906		
NMBSA Wet + Dry Lab and Shared Office	7,457	5,340	15,730	1,089	1,290		30,906	100%	Office 30,906
	Office	collaboration	Laboratory	Class	Support				30,906

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~67,000 GSF BUILDING)

NMBSA Wet + Dry Lab and Shared Office

Space Name	Staff	NSF	Qty.	Total NSF	Mult.	ASF	Total ASF	Comments
Office								
Building Management Office	6	62	6	372	1.3	484		
Tenant Office - Single	12	62	12	744	1.3	967		
Tenant Office - 2PPL	28	95	14	1,330	1.3	1,729		
Tenant Office - 3PPL	36	120	12	1,440	1.3	1,872		
Tenant Office - 5PPL	25	190	5	950	1.3	1,235		
Shared Work Area	36	25	36	900	1.3	1,170		
Sub-Total	143			5,736			7,457	
Collaboration								
Entry Lobby / Event Space		2,000	1	2,000	1.0	2,000		
Break Room		650	2	1,300	1.0	1,300		
Elevator Lobby/Huddle		300	3	900	1.0	900		
Open Huddle		180	1	180	1.0	180		
Conference - Small		120	2	240	1.0	240		
Conference - Medium		300	2	600	1.0	600		
Conference - Large		500	0	0	1.0	0		
Phone/Focus		30	4	120	1.0	120		
Sub-Total	0			5,340			5,340	
Classroom								
40-Person Classroom		1,089	1	1,089	1.0	1,089		
Sub-Total	0			1,089			1,089	
Laboratory								
Lab Sm		363	7	2,541	1.0	2,541		
Lab Med		726	6	4,356	1.0	4,356		
Lab Large		1,089	7	7,623	1.0	7,623		
Lab Support		242	3	726	1.0	726		
Showcase Lab		484	1	484	1.0	484		
Sub-Total	0			15,730			15,730	
Support								
Shared Support		242	3	726	1.0	726		
Staging		242	1	242	1.0	242		
Chemical Storage		121	1	121	1.0	121		
Bio Waste		121	1	121	1.0	121		
Wellness Room		80	1	80	1.0	80		
Sub-Total	0			1,290			1,290	
TOTAL	143			29,185			30,906	

CHAPTER 13

WORKSHOP PRESENTATIONS & NOTES

NEW MEXICO BIOSCIENCE AUTHORITY

FEASIBILITY STUDY, WET AND DRY LAB AND SHARED OFFICE FACILITY

WORKSHOP 1

MAY 13, 2026

WORKSHOP #1 AGENDA

WEDNESDAY MAY 13

SITE TOURS	9:00–12:00
Site #1 ‘Fatpipe Site’ Tour	
Site #2 ‘New Site’ Tour	
 LUNCH	 12:00–1:00
 WORKSHOP	 1:00–3:00
Intros Table Setting	1:00–1:30
<i>Case Studies</i>	
Vision and Goals	1:30–1:45
Program and Squinty Board	1:45–2:15
Site and Existing Conditions	2:15–2:30
Site Selection Criteria Intro	2:30–2:45
Wrap up Homework assignments	2:45–3:00

INTRODUCTIONS



SANJAY ENGINEER
Vice President
Team Leader



ART TATUM
President
Design Leader



JUSTIN MILBURN
Architect



WILL MCCORY
Design Leader



ADAM DENMARK
Lead Lab Planner



NHU LE
Laboratory
Interiors Planner



JON SILHOL
Engineering Lead
Mechanical
Engineer



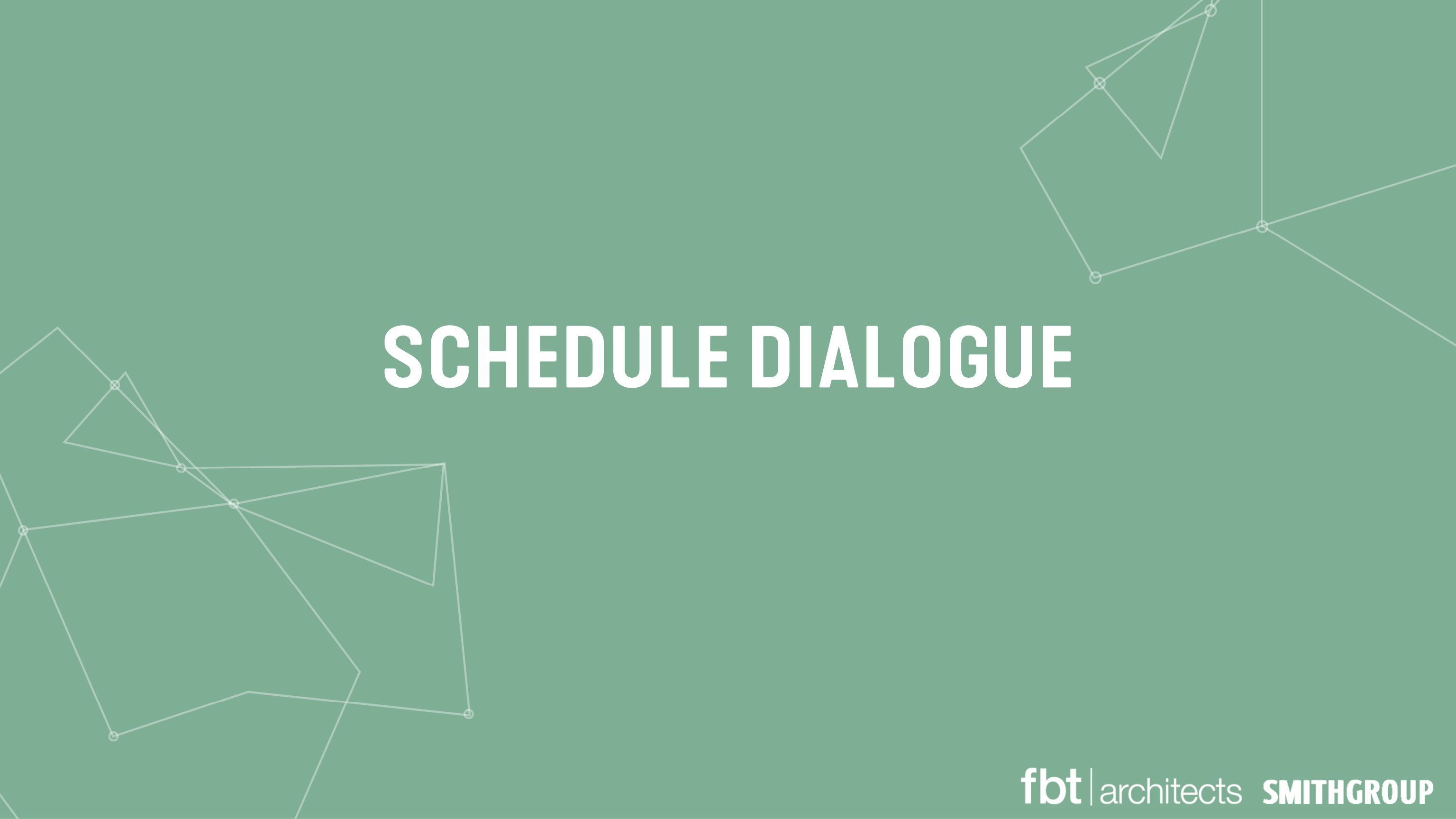
BIANCA JIMENEZ
Senior Electrical
Engineer

ENTIRE TEAM

Team Organizational Chart

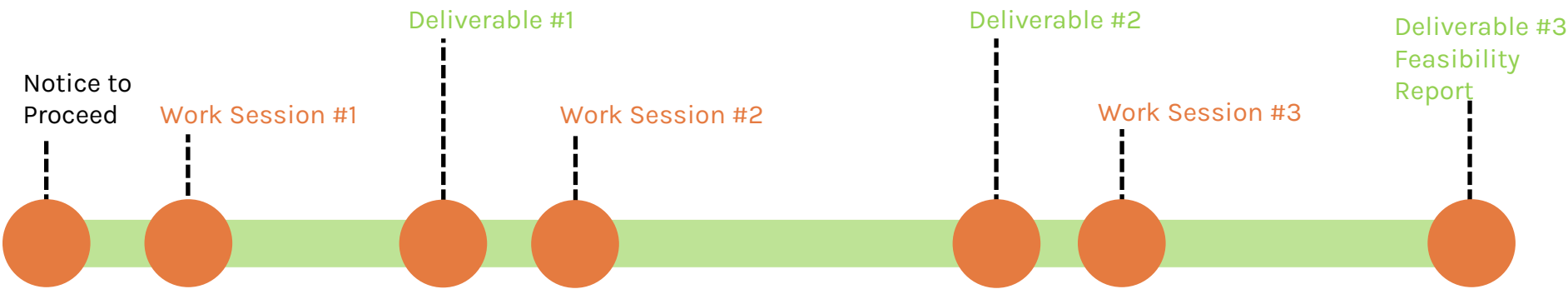


FBT ARCHITECTS SMITHGROUP KEY PERSONNEL

The background is a solid teal color. In the top-left and bottom-left corners, there are abstract line art designs consisting of thin white lines forming various geometric shapes and polygons. In the top-right corner, there is a small cluster of white dots connected by thin white lines, resembling a network or a stylized architectural plan.

SCHEDULE DIALOGUE

SCHEDULE



SCHEDULE	April '26				May '26				June '26				July '26			
Feasibility & Needs Assessment					5/4-5/15 2 WEEKS											
Site & Building Location Evaluation					5/4-5/22 3 WEEKS											
Programming & Space Planning						5/11-5/29 3 WEEKS										
Building Systems Analysis							5/18-5/29 2 WEEKS									
New Facility Systems & Site Analysis Report																
Cost Modeling & Phasing									6/1-6/12 2 WEEKS							
Pros & Cons Assessment										6/8-6/26 3 WEEKS						
Implementation Roadmap													6/29-7/24 4 WEEKS			

The background is a solid teal color. In the top-left and bottom-left corners, there are abstract line art designs consisting of thin white lines forming various geometric shapes and polygons. In the top-right corner, there is a more complex line art design featuring a series of connected lines and small circles at some of the vertices, resembling a stylized network or a geometric pattern.

WHAT DRIVES SUCCESS?



AGILE SPACES AT ENTRY LEVEL PRICES

IN-HOUSE TEAM



DIRECTOR



ASSISTANT
DIRECTOR



MARKETING + PR



BD ANALYST



AI ENGINEER



COMMUNITY +
INDUSTRY RELATIONS

MENTORSHIP TEAM

INDUSTRY EXPERTS



WORKFORCE
DEVELOPMENT



PROJECT
MANAGER



GATEWAY
COMMUNITY COLLEGE

A MARICOPA COMMUNITY COLLEGE



MARICOPA
COMMUNITY COLLEGES



INVESTOR BREAKFAST

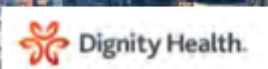
ACCESS TO INVESTOR NETWORKS



Phoenix Sky Harbor Airport

Chase Field

Phoenix Suns Arena



Arizona Center



Phoenix Union
Bioscience High School



Roosevelt Row Arts District



Full Diamond Interchange



INNOVATION ECOSYSTEM

“WE HELP STARTUPS GET TO MARKET & COMPANIES BUILD THEIR TALENT”

Mission

To help innovators and businesses of all sizes succeed by delivering exceptional entrepreneurial, educational, and workforce development resources.

Vision

To foster a culture of regional innovation where community members, entrepreneurs, and companies are empowered to solve today’s biggest problems.

Our Values

We Prioritize Collaboration

We believe that great ideas are best nurtured in an environment where people with different backgrounds, perspectives, and areas of expertise can work side by side. At every level of business — from startup support to workforce development — the Center for Entrepreneurial Innovation encourages, enables and practices collaboration. By being team-oriented and community-centered, we strive to help everyone we work with get further, faster.

We Act With Integrity

We believe in delivering the highest quality support, resources, and programming possible to everyone we serve. We aim for transparency in all aspects of our work, and take the feedback we receive — both internally and externally — to heart. By setting a standard of open and honest communication with those in our community, we are able to reflect, iterate, and improve our services in the pursuit of excellence.

We Strive For Growth

Advances in science, technology and business are nonstop, and it's crucial that CEI keeps up. With each year since opening, we have committed to growth in big and small ways. By staying flexible and receptive to new ideas, we are able to evolve to best support our clients, partners and community.

FOCUSED VISION

CASE STUDIES

GATEWAY CENTER FOR ENTREPRENEURIAL INNOVATION



21k GSF

47% LABS

WET LABS
INDUSTRIAL LABS
OFFICE
COLLABORATION

FLEXIBLE ENVIRONMENTS



GATEWAY CENTER FOR ENTREPRENEURIAL INNOVATION

INDOOR & OUTDOOR

FLOOR PLAN





CONNECT LABS @ 850 PBC

24k ASF

49% LABS

- WET LABS
- SHOWCASE LAB
- OFFICE
- COLLABORATION

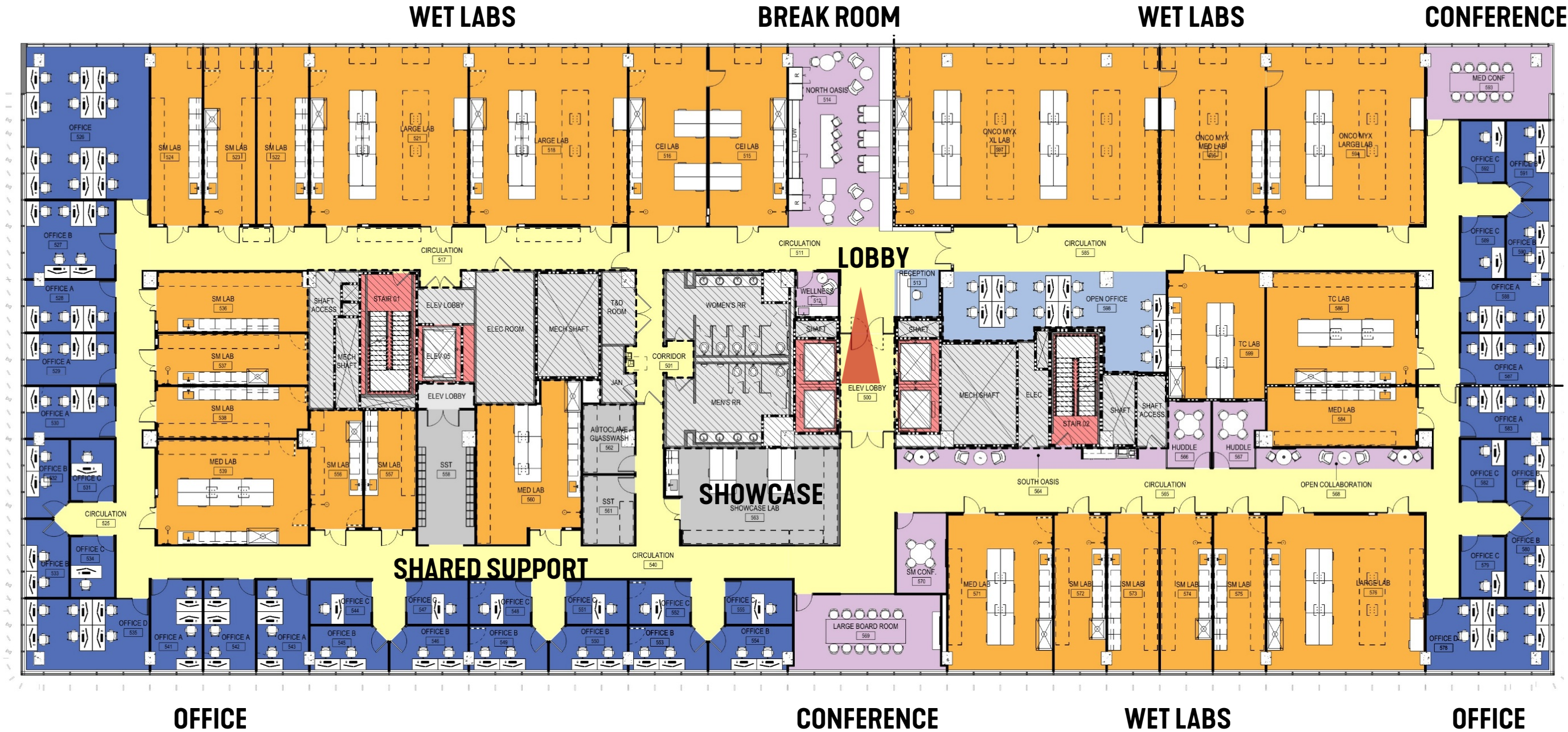
CENTRAL HUB



CONNECT LABS @ 850 PBC

WET LAB ADAPTABILITY

FLOOR PLAN



CONNECT LABS @ AGGIE SQUARE

35k ASF

62% LABS

WET LAB VARIETY
SHOWCASE SPACES
OFFICE
SPLIT FUNCTIONAL SPACE

connect labs
BY WEXFORD

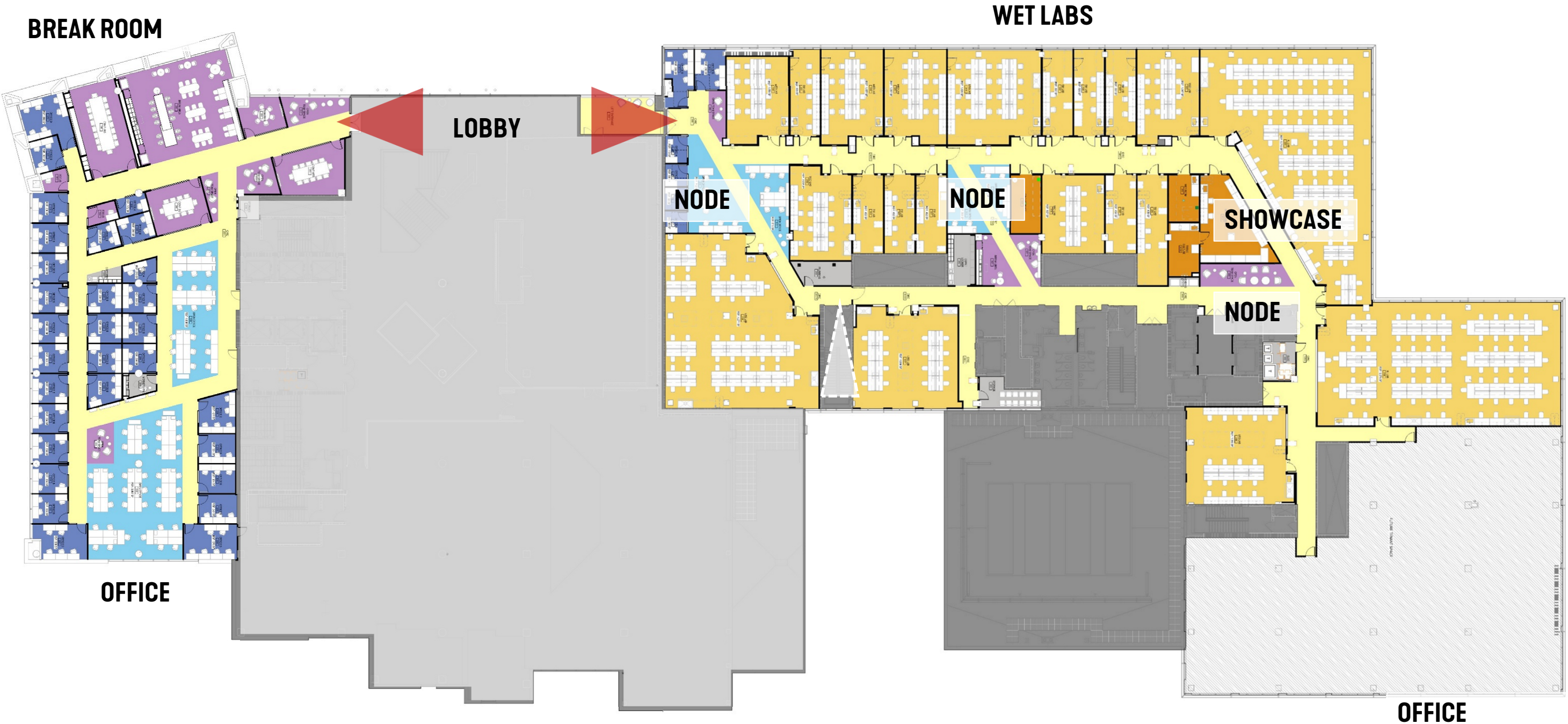




CONNECT LABS @ AGGIE SQUARE

SHOWCASE

FLOOR PLAN



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VISION/MISSION

PROJECT GOALS & VISION

SEPARATE LAB AND OFFICE SPACE

SHARED CORE LAB SPACE WITH
PRIVACY FOR IP

SPACE SIZING IS KEY – NEED
MORE MEDIUM SCALE SPACE
1,000-1,500 ASF

WHAT EXISTING PROBLEMS ARE WE SEEKING TO SOLVE?

LACK OF INCUBATOR RESEARCH
SPACE?

IN-HOUSE SERVER ROOM FOR
GOVERNMENT CONTRACTS

ADEQUATE POWER, DATA, & LAB
SERVICES

PROJECT GOALS & VISION

HELP FACILITATE
COMMERCIALIZATION OF IP
CREATE A PIPELINE TO INDUSTRY

EXAMPLE OF ST. LOUIS WASH U
AND BAYLOR

GOAL IS TO MAKE ALL BIO
COMMERCIALIZABLE

WHAT WILL MAKE THIS PROJECT A SUCCESS?

ATTRACT & RETAIN HIGH VALUE
PRIVATE RESEARCH TO NEW
MEXICO?

AS A STATE ENTITY CAN TAKE ON
STATE LAND AS A LAND SWAP

BIOSCIENCES PLAYS KEY ROLE IN
DIVERSIFYING THE ECONOMY

PROVIDING THE NEXT LEVEL OF
SPACE FROM UNM FIRST STEP OR
INCUBATOR

PROJECT GOALS & VISION

3,000 – 5,000 SF OF SPACE PER
TENANT

SECURITY PROTOCOL

OPEN RENTABLE BENCH
SPACE

FUNCTIONAL SEPARATION
BETWEEN SCIENCES

BSL – 2

WHAT KEY FEATURES ARE ESSENTIAL?

ACCESS AND TRANSPORTATION TO
AND FROM TRAIN STATION

GREENHOUSE

AUTOCLAVE

GOOD COFFEE?

SECURE PARTITIONED SERVER
ROOM

COMMON BREAKROOM

PAIS AT UNM IS A GREAT
EXAMPLE – PHYSICS,
ASTRONOMY INTEGRATED
SCIENCES

PROJECT GOALS & VISION

ATTRACTING THE RIGHT TENANTS
AND UNDERSTANDING THEIR
SPECIFIC NEEDS

EASE OF USE AND MOVE-IN, TOO
AFFILIATED WITH UNM? ALLOW
FOR AUTONOMY AND IP
OWNERSHIP

BIOSCIENCE CENTER IS FULL AND
CLEARLY SUCCESSFUL AND FULL—
POLL THE TENANTS FOR THEIR
NEXT SPACE?

ARE THERE ANY ASPECTS OF THE PROJECT OR PROCESS THAT ARE KEEPING YOU UP AT NIGHT?

FUNDING NEEDS TO BE
RELATED TO SPACE

NEED FOR THE MEDIUM SIZED
SPACE

LARGE SPACE TENANTS ALREADY
HAVE OPTIONS

SANTA FE BUSINESS INCUBATOR
BIOSCIENCE TENANTS COULD
ALSO BE FUTURE TENANTS AND
THEIR INPUT WOULD BE VALUABLE

BUILDING SYSTEMS

WHAT WILL ELECTRICAL LOOK FOR?

- **Capacity & Availability**
 - Data Available
 - As-builts, Panel Schedules, metering...
 - Amps and Voltages Available
 - New Program Estimates versus Existing Infrastructure Ratings
 - New Systems Needs
 - Mechanical or Plumbing
- **Quality of Equipment**
 - Is it in a state of repair? Brand new?
 - Quality lighting?
- **Visible Code Issues**
 - Electrical Room Layout
 - Physical Space
 - General Code Updates
- **Lab Requirements and Future Flexibility**
 - Important Client details



BUILDING SYSTEMS

WHAT WILL MECHANICAL LOOK FOR?

- **Capacity & Availability**
 - Data Available
 - As-builts, Equipment Schedules
 - New Lab Requirements
 - Temperature and humidity
 - Exhaust
 - Process Water
- **Equipment Characteristics**
 - Type of equipment
 - Age of equipment
 - Capacity of equipment
- **Visible Code Issues**
 - Exhaust locations
 - Outside air locations
 - Physical Space
- **Lab Requirements and Future Flexibility**
 - Important Client details



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PROGRAM REVIEW

PRELIMINARY PROGRAM DEVELOPMENT

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY				
Facility Summary	Staff	Efficiency	Total ASF	Total GSF
Wet + Dry Lab and Shared Office Facility	115	65%	24,873	38,265
Facility TOTAL	115	65%	24,873	38,265

25K ASSIGNABLE SQUARE FEET (ASF)

PRELIMINARY PROGRAM DEVELOPMENT

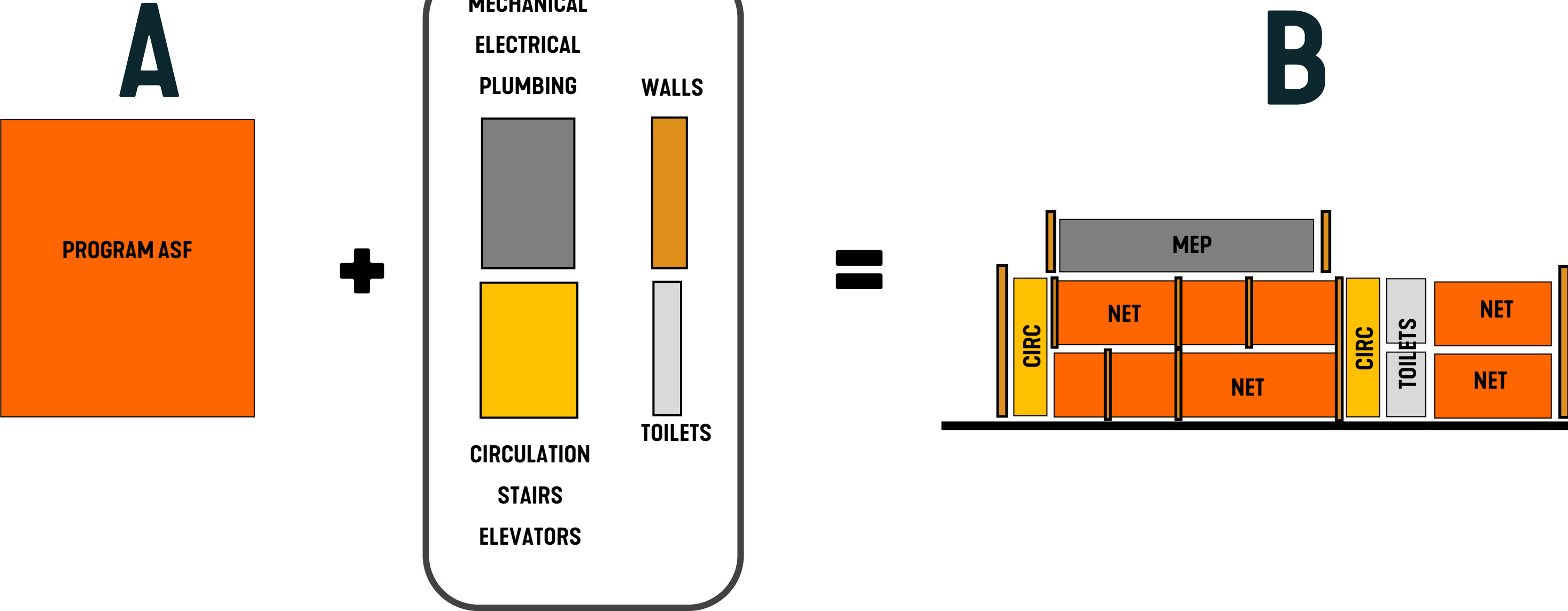
NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY				
Facility Summary	Staff	Efficiency	Total ASF	Total GSF
Wet + Dry Lab and Shared Office Facility	115	65%	24,873	38,265
Facility TOTAL	115	65%	24,873	38,265

25K ASSIGNABLE SQUARE FEET (ASF)

NOT THE SAME

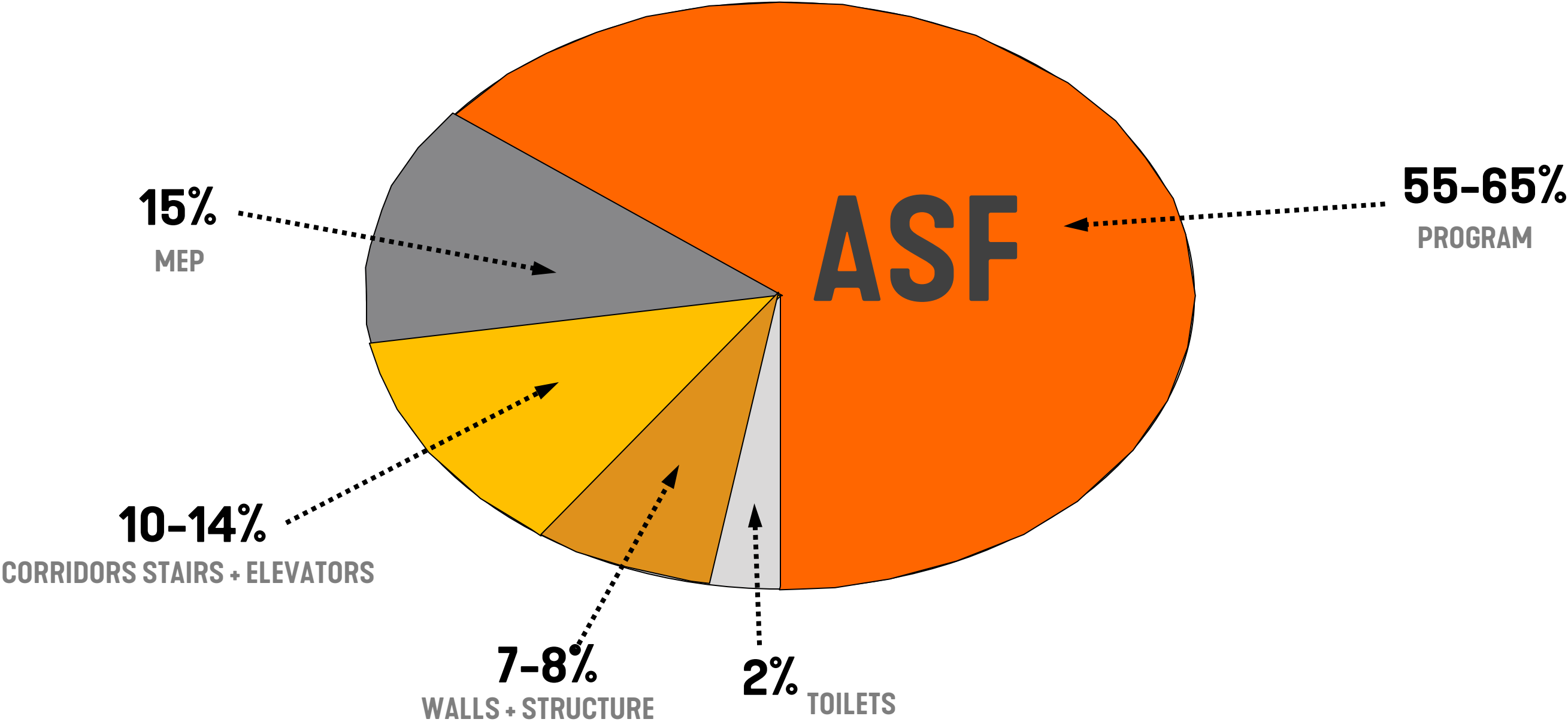
39K GROSS SQUARE FEET (GSF)

BUILDING GROSSING



BUILDING GROSSING

EXAMPLE



BUILDING GROSSING

A : B = GROSSING FACTOR (%)

WHAT AFFECTS GROSSING FACTOR?

- **SITE CONSTRAINTS**

- Topography
- Building layout
- Floor plate size
- Number of floors

- **BUILDING SYSTEMS**

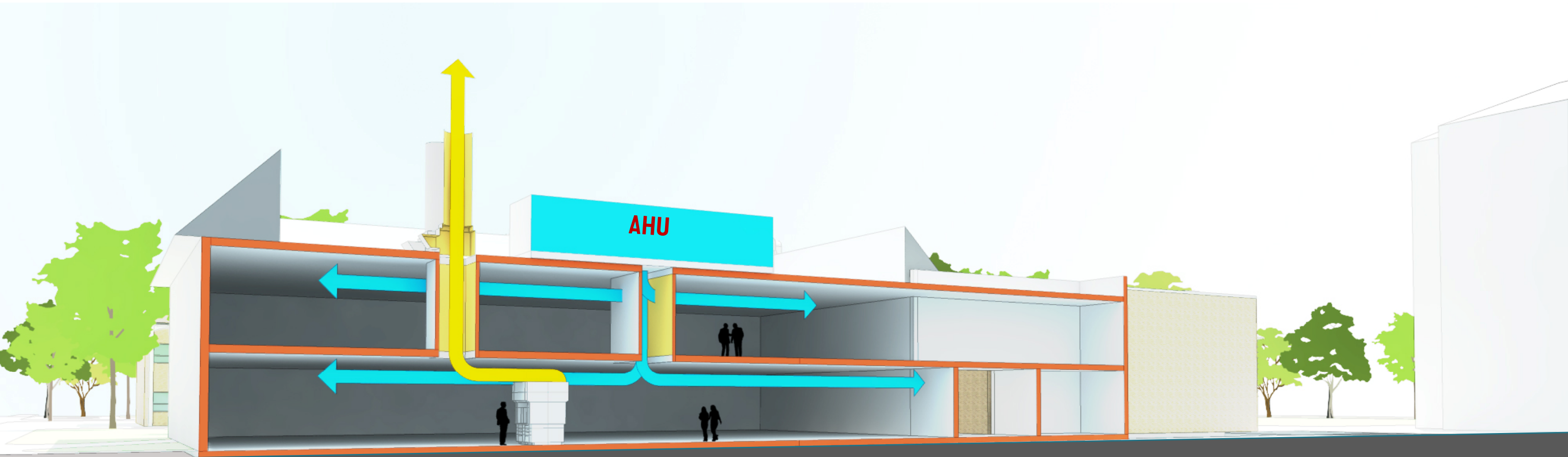
- Mechanical equipment outside vs. Inside

- **PROGRAM TYPOLOGY**

- Circulation + security requirements
- Sizes + geometry of rooms

A:B

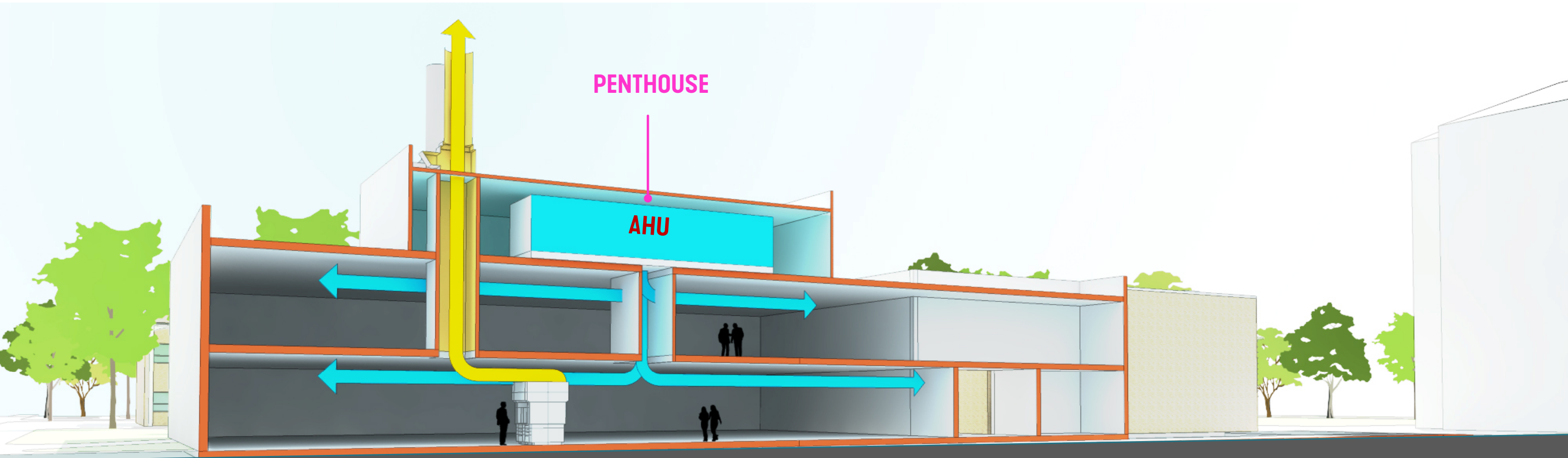
BUILDING SYSTEM APPROACH



ROOFTOP- OUTSIDE

BUILDING SYSTEM APPROACH

INCLUDED IN GROSS SQUARE FOOTAGE



PENTHOUSE- INSIDE

PRELIMINARY PROGRAM DEVELOPMENT

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY

Wet + Dry Lab and Shared Office Facility

Space Name	Staff	NSF	Qty.	Total NSF	Mult.	ASF	Total ASF
Office							
Tenant Office Medium	10	78	10	780	1.3	1,014	
Tenant Office Large	60	121	30	3,630	1.3	4,719	
Tenant Office X-Large	20	182	5	910	1.3	1,183	
Shared Work Area	25	25	25	625	1.3	813	
Sub-Total	115			5,945			7,729
Collaboration							
Entry Lobby		500	1	500	1.0	500	
Break Room		500	1	500	1.0	500	
Open Huddle		120	1	120	1.0	120	
Conference - Small		120	1	120	1.0	120	
Conference - Medium		300	1	300	1.0	300	
Conference - Large		500	1	500	1.0	500	
Phone/Focus		25	4	100	1.0	100	
Sub-Total	0			2,140			2,140

Laboratory

Lab Sm		242	10	2,420	1.0	2,420	
Lab Md		363	12	4,356	1.0	4,356	
Lab Lg		726	5	3,630	1.0	3,630	
Lab XL		1,089	1	1,089	1.0	1,089	
Shared Lab Support		242	5	1,210	1.0	1,210	
Showcase Lab		484	1	484	1.0	484	
Sub-Total	0			13,189			13,189

Support

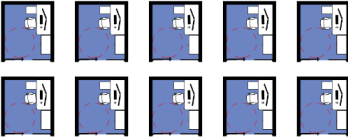
Shared Support		242	5	1,210	1.0	1,210	
Staging		242	1	242	1.0	242	
Chemical Storage		121	1	121	1.0	121	
Bio Waste		121	1	121	1.0	121	
Wellness Room		121	1	121	1.0	121	
Sub-Total	0			1,815			1,815
TOTAL	115			23,089			24,873

SQUINTY VIEW

GRAPHIC PROGRAM

OFFICE

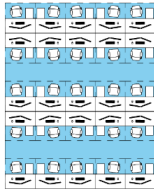
TENANT OFFICE MEDIUM (10)



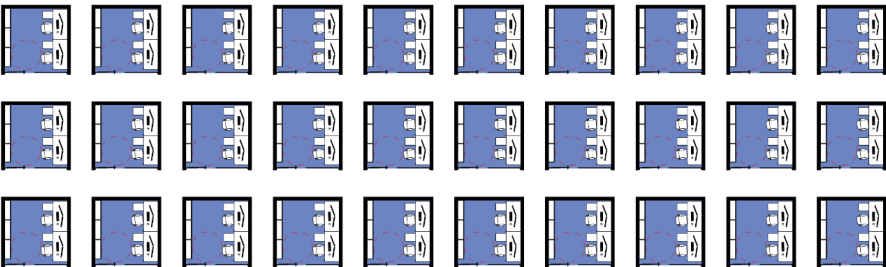
TENANT OFFICE EXTRA LARGE (5)



SHARED WORK AREA (25)

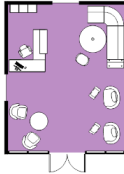


TENANT OFFICE LARGE (30)

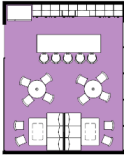


COLLABORATION

ENTRY LOBBY



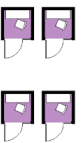
BREAK ROOM



OPEN HUDDLE



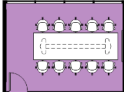
PHONE/FOCUS (4)



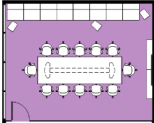
CONFERENCE - SMALL



CONFERENCE - MEDIUM

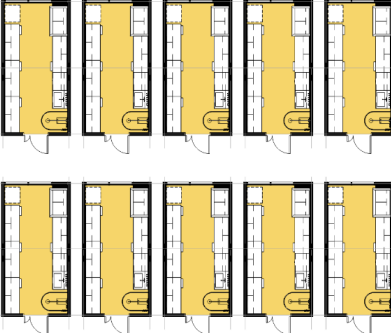


CONFERENCE - LARGE



LABORATORY

LABORATORY SMALL (10)



LABORATORY MEDIUM (12)



LABORATORY LARGE (5)



LABORATORY EXTRA LARGE



SHARED LABORATORY SUPPORT (5)

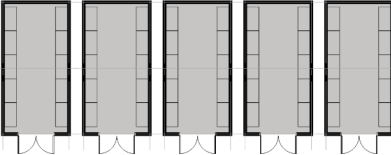


SHOWCASE LABORATORY



SUPPORT

SHARED SUPPORT (5)



STAGING



CHEMICAL STORAGE



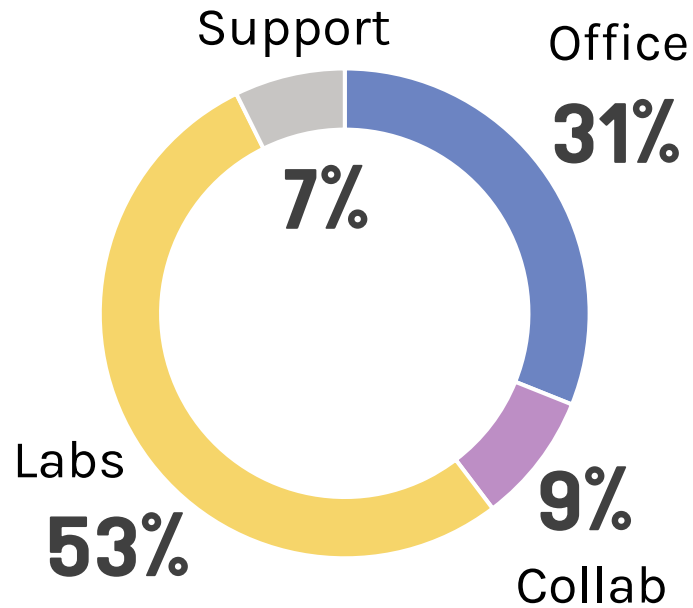
BIO WASTE



WELLNESS ROOM



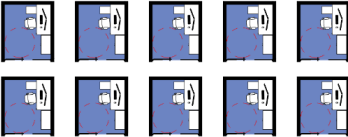
SQUINTY VIEW



GRAPHIC PROGRAM

OFFICE

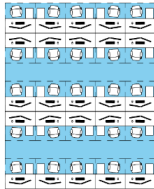
TENANT OFFICE MEDIUM (10)



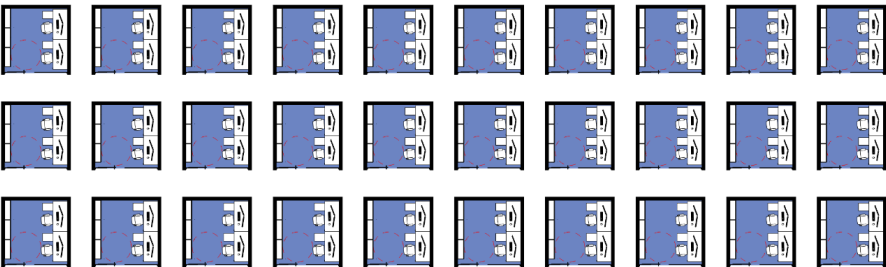
TENANT OFFICE EXTRA LARGE (5)



SHARED WORK AREA (25)

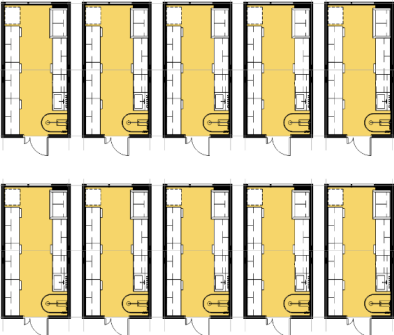


TENANT OFFICE LARGE (30)



LABORATORY

LABORATORY SMALL (10)



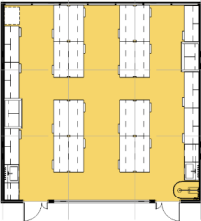
LABORATORY MEDIUM (12)



LABORATORY LARGE (5)



LABORATORY EXTRA LARGE



SHARED LABORATORY SUPPORT (5)

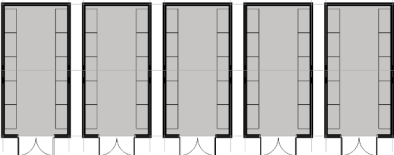


SHOWCASE LABORATORY



SUPPORT

SHARED SUPPORT (5)



STAGING



CHEMICAL STORAGE



BIO WASTE

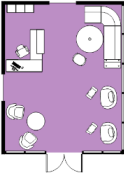


WELLNESS ROOM

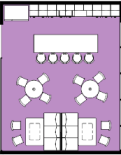


COLLABORATION

ENTRY LOBBY



BREAK ROOM



OPEN HUDDLE



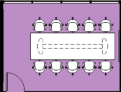
PHONE/FOCUS (4)



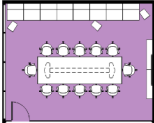
CONFERENCE - SMALL

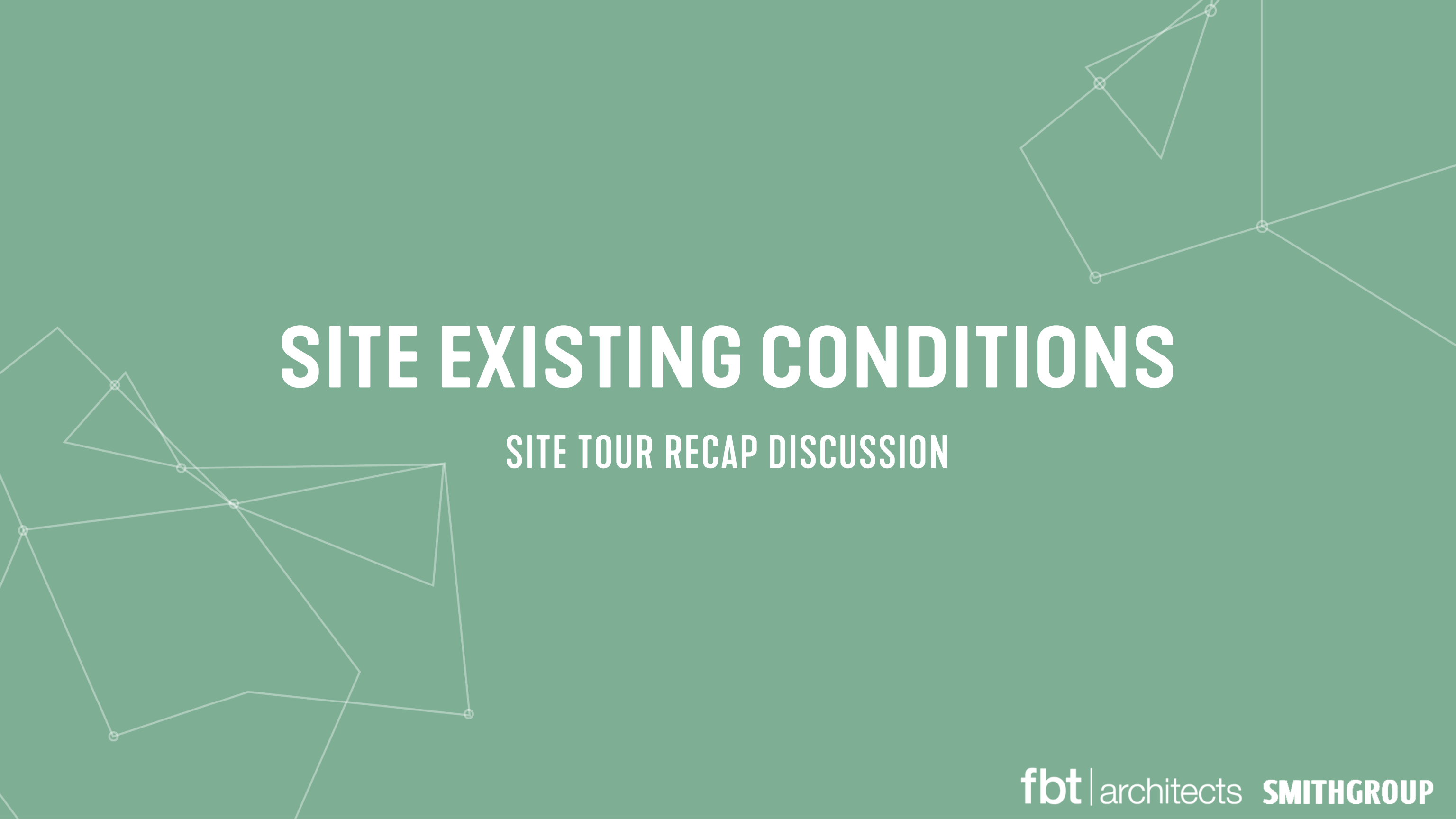


CONFERENCE - MEDIUM



CONFERENCE - LARGE



The slide features a solid teal background. In the corners, there are abstract white line drawings of geometric shapes, including triangles and polygons, some with small circles at their vertices.

SITE EXISTING CONDITIONS

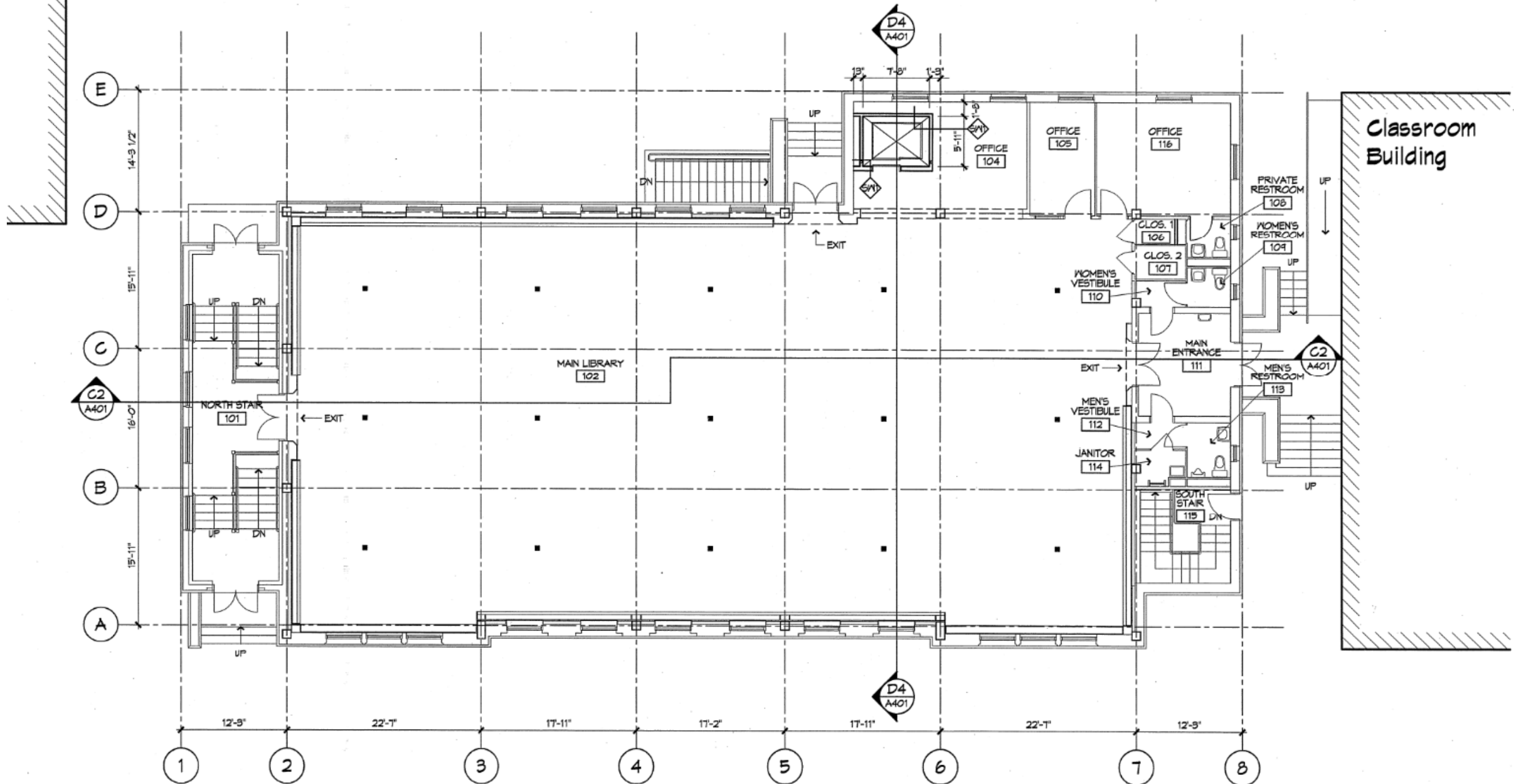
SITE TOUR RECAP DISCUSSION

FAT PIPE ABQ



FAT PIPE ABQ

Gymnasium
Building



Classroom
Building

LOMAS CORRIDOR

INITIAL OBSERVATIONS

- -
- -



LOMAS CORRIDOR





SITE CRITERIA



SITE EVALUATION MATRIX INTRODUCTION

SITE SELECTION CRITERIA MATRIX

DISCUSS CRITERIA AND WEIGHTING

- **Accommodation of Program**
 - Ceiling height, Lab layout efficiency
 - Access
 - Service loading, elevator, stair capacity
- **Location**
 - Proximity to Existing Research
 - Visibility
 - Transportation & Amenities
- **Building Systems**
 - Mechanical and Electrical Capacity & Availability
 - Lab Gas and Floor Drain Piping
 - Structure & Envelope
 - Vibration, Infiltration, Temperature & Humidity Control
- **Cost**
 - Initial Investment
 - Ongoing Costs

A		B	C	D	E	F	G	H
1	Site Evaluation Matrix							
2	2 = Yes/Very True/Agree							
3	1 = Somewhat Yes/Somewhat True/Somewhat Agree							
4	0 = No/Not True/Don't Agree							
5					Weighted Score			
		FatPipe	New Site	Weight	FatPipe	New Site	Comments	
6	A	Program Requirements						
7		Optimal Program Distribution						
8	A.1	Laboratory Layout Efficiency and Flexibility			1	0	0	
9	A.2	Access i.e. Back-of-house Loading Service Corridor and stair and elevator access			1	0	0	
10				2	0	0		
11								
12	B	Location						
13		Academic, Administrative, Research Community Access						
14	B.1	Proximity to Existing Research Collaboration			1	0	0	
15	B.2	Proximity to Existing Core Research Facilities			1	0	0	
16	B.3	Site has good access to main roadways			1	0	0	
17	B.4	Site will be in close proximity to parking structure or surface lot			1	0	0	
18	B.5	Site offers good visibility to public for visibility of state investment and to recruit research			1	0	0	
19	B.6	Site will have low noise level (dB)			1	0	0	
20				6	0	0		
21								
22	C	Building Systems						
23		Broadcasting Requirements, Utilities, Water, Technology						
24	C.1	Mechanical and Electrical Capacity in Existing Building & Availability on New Site			1	0	0	
25	C.2	Telecom/fiber is within the vicinity (6 strands min. 100g bandwidth)			1	0	0	
26	C.3	Site does not require major reconfiguration of existing utilities			1	0	0	
27	C.4	Site provides low vibration levels (dB)			1	0	0	
28				4	0	0		
29								
30	D	Cost Impacts						
31		Site Development Costs, 3 most cost effective - 0 most expensive						
32	D.1	Cost / sf			1	0	0	
33	D.2	Shortest Schedule for Move-in			1	0	0	
34	D.3	Ongoing Costs i.e. land / building lease payments			1	0	0	
35				3	0	0		
36								
37								
38		Totals						
39	A			2	0	0		
40	B			6	0	0		
41	C			4	0	0		
42	D			3	0	0		
43					0	0		
					FatPipe	New Site		

Site Matrix



WRAP-UP



NEXT STEPS & HOMEWORK ASSIGNMENTS

NEW MEXICO BIOSCIENCE AUTHORITY

FEASIBILITY STUDY, WET AND DRY LAB AND SHARED OFFICE FACILITY

WORKSHOP 2
JUNE 4, 2026



NEW MEXICO
BIOSCIENCE
AUTHORITY
A BIOSCIENCE CENTER OF EXCELLENCE

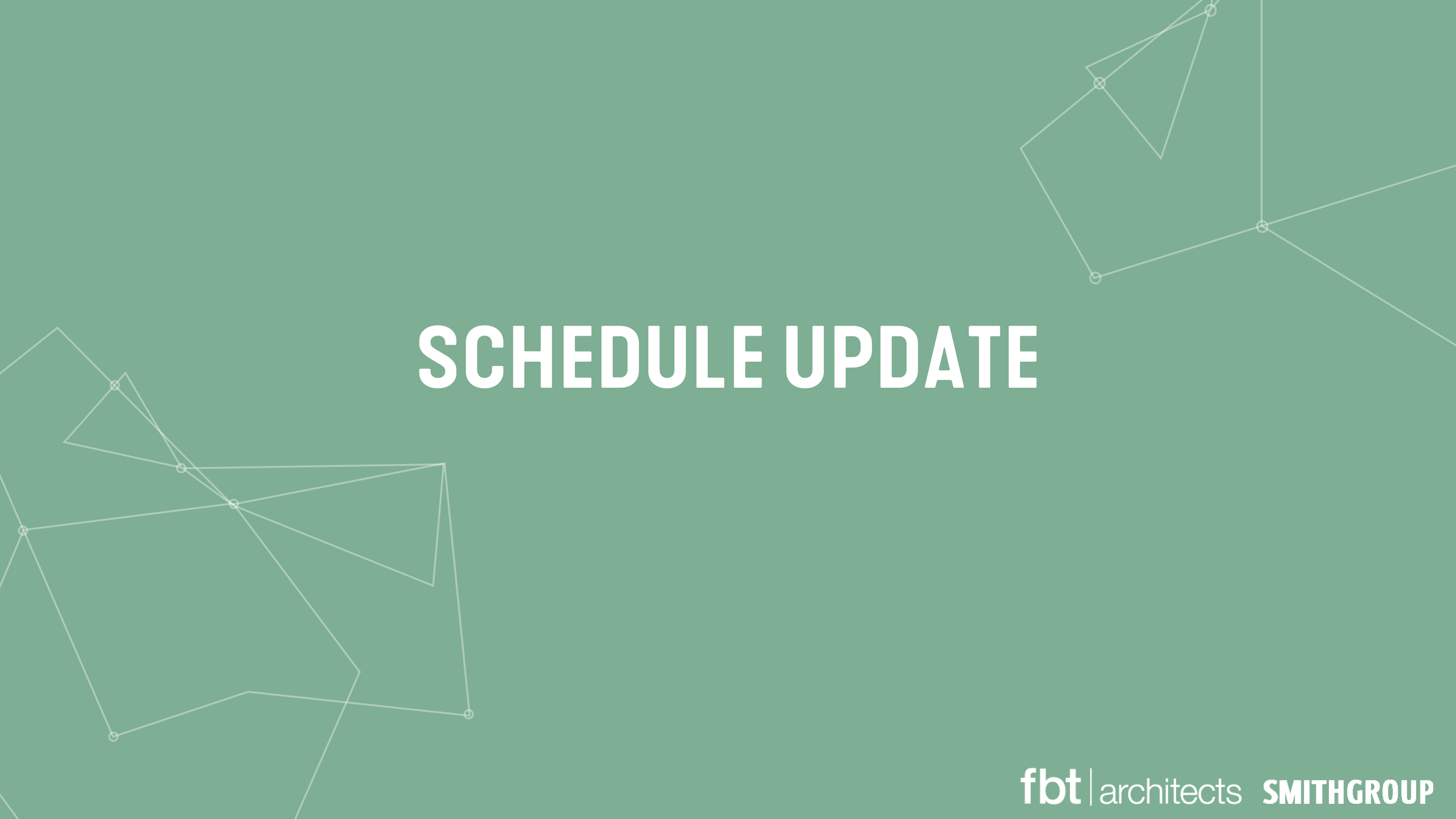
fbt | architects **SMITHGROUP**

WORKSHOP #2 AGENDA

THURSDAY JUNE 4,

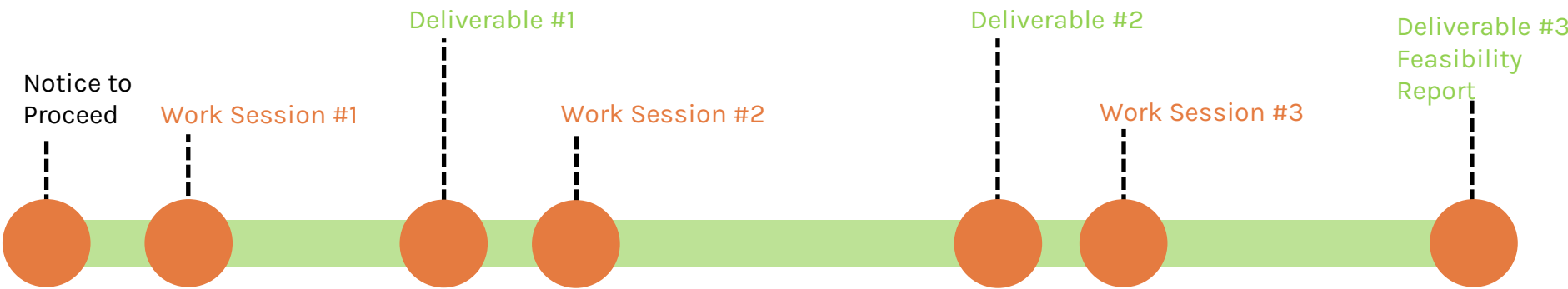
9:00-11:00AM

Schedule & Vision Update	9:00
Tours Debrief & Takeaways	9:10
Final Report Table of Contents Discussion	9:20
Program and Squinty Board Scenarios	9:30
Existing Fat Pipe Test Fit Discussion	9:45
New Building Blocking Plan Discussion	10:00
New Site Location Discussion	10:15
Site Selection Criteria and Scoring	10:30
Wrap up Homework assignments	10:45

The background is a solid teal color. In the top-left and bottom-left corners, there are abstract line art designs consisting of thin white lines forming various geometric shapes and polygons. In the top-right corner, there is a similar abstract line art design, but it includes small white circles at some of the vertices, resembling a network or a stylized map.

SCHEDULE UPDATE

SCHEDULE



SCHEDULE	April '26				May '26				June '26				July '26			
Feasibility & Needs Assessment					5/4-5/15 2 WEEKS											
Site & Building Location Evaluation					5/4-5/22 3 WEEKS											
Programming & Space Planning						5/11-5/29 3 WEEKS										
Building Systems Analysis							5/18-5/29 2 WEEKS									
New Facility Systems & Site Analysis Report																
Cost Modeling & Phasing									6/1-6/12 2 WEEKS							
Pros & Cons Assessment										6/8-6/26 3 WEEKS						
Implementation Roadmap													6/29-7/24 4 WEEKS			

The slide features a solid teal background. In the top-left and bottom-left corners, there are abstract line drawings of geometric shapes, possibly representing architectural plans or structural frameworks. In the top-right corner, there is a similar abstract line drawing, but it includes small circles at some of its vertices, suggesting a network or a specific set of points.

VISION/MISSION

GREAT DISCUSSION LAST WORKSHOP...

PROJECT GOALS & VISION

SEPARATE LAB AND OFFICE SPACE

SHARED CORE LAB SPACE WITH
PRIVACY FOR IP

SPACE SIZING IS KEY – NEED
MORE MEDIUM SCALE SPACE
1,000-1,500 ASF

WHAT EXISTING PROBLEMS ARE WE SEEKING TO SOLVE?

LACK OF INCUBATOR RESEARCH
SPACE?

IN-HOUSE SERVER ROOM FOR
GOVERNMENT CONTRACTS

ADEQUATE POWER, DATA, & LAB
SERVICES

NEW MEXICO
BIOSCIENCE
AUTHORITY

NEW MEXICO BIOSCIENCE AUTHORITY Feasibility Study, Wet and Dry Lab and Shared Office Facility

fbt

architects

SMITHGROUP

PROJECT GOALS & VISION

HELP FACILITATE
COMMERCIALIZATION OF IP
CREATE A PIPELINE TO INDUSTRY

EXAMPLE OF ST. LOUIS WASH U
AND BAYLOR

GOAL IS TO MAKE ALL BIO
COMMERCIALIZABLE

WHAT WILL MAKE THIS PROJECT A SUCCESS?

AS A STATE ENTITY CAN TAKE ON
STATE LAND AS A LAND SWAP

ATTRACT & RETAIN HIGH VALUE
PRIVATE RESEARCH TO NEW
MEXICO?

BIOSCIENCES PLAYS KEY ROLE IN
DIVERSIFYING THE ECONOMY

PROVIDING THE NEXT LEVEL OF
SPACE FROM UNM FIRST STEP OR
INCUBATOR

NEW MEXICO
BIOSCIENCE
AUTHORITY

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PROJECT GOALS & VISION

3,000 - 5,000 SF OF SPACE PER
TENANT

SECURITY PROTOCOL

OPEN RENTABLE BENCH
SPACE

FUNCTIONAL SEPARATION
BETWEEN SCIENCES

BSL - 2

WHAT KEY FEATURES ARE ESSENTIAL?

ACCESS AND TRANSPORTATION TO
AND FROM TRAIN STATION

GREENHOUSE

AUTOCLAVE

GOOD COFFEE?

COMMON BREAKROOM

PAIRS AT UNM IS A GREAT
EXAMPLE – PHYSICS,
ASTRONOMY INTEGRATED
SCIENCES

SECURE PARTITIONED SERVER
ROOM

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PROJECT GOALS & VISION

ATTRACTING THE RIGHT TENANTS
AND UNDERSTANDING THEIR
SPECIFIC NEEDS

EASE OF USE AND MOVE-IN, TOO
AFFILIATED WITH UNM? ALLOW
FOR AUTONOMY AND IP
OWNERSHIP

BIOSCIENCE CENTER IS FULL AND
CLEARLY SUCCESSFUL AND FULL-
POLL THE TENANTS FOR THEIR
NEXT SPACE?

ARE THERE ANY ASPECTS OF THE PROJECT OR PROCESS
THAT ARE KEEPING YOU UP AT NIGHT?

FUNDING NEEDS TO BE
RELATED TO SPACE

SANTA FE BUSINESS INCUBATOR
BIOSCIENCE TENANTS COULD
ALSO BE FUTURE TENANTS AND
THEIR INPUT WOULD BE VALUABLE

NEED FOR THE MEDIUM SIZED
SPACE

LARGE SPACE TENANTS ALREADY
HAVE OPTIONS

NEW MEXICO
BIOSCIENCE
AUTHORITY

NEW MEXICO BIOSCIENCE AUTHORITY Feasibility Study, Wet and Dry Lab and Shared Office Facility

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PROJECT GOALS AND VISION

ARE THESE RIGHT?

Incubator Research Space for Independent IP Ownership

Translational Space with Resources to bring Research to Market

Attract & Retain Private Research to Help Diversify the NM Economy

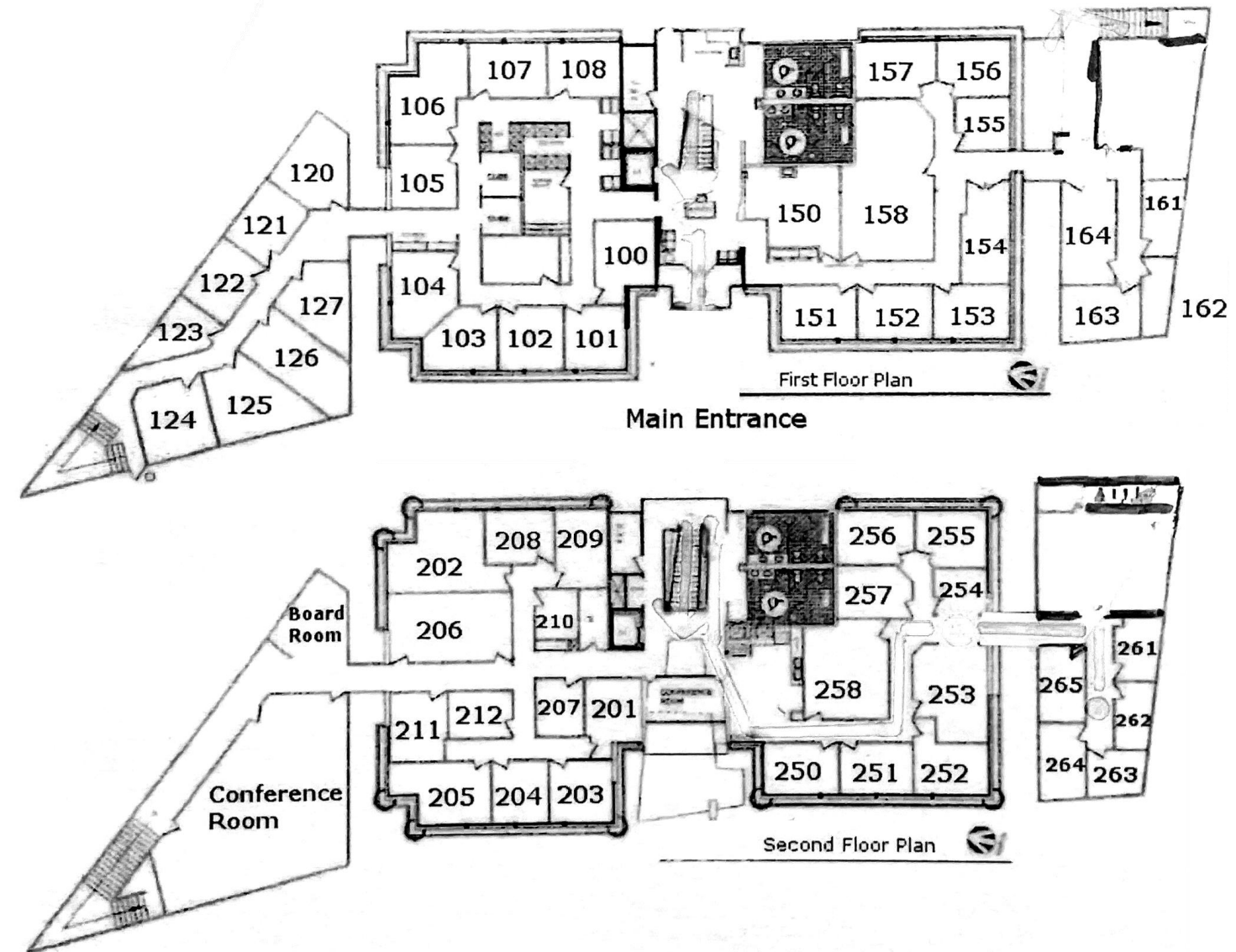
Fill a critical gap in the NM Biosciences ecosystem

LAB TOURS

LAB TOUR TAKE-AWAYS...

THE BIOSCIENCE CENTER

- Total size: 19,500 SF (15,000 NSF)
- The building was repurposed into lab space in 2013, was not purpose built as an incubator.
- Now fully occupied with a waiting list, indicates high demand for lab space in Albuquerque.
- Labs are small in size:
 - Largest ~480-500 SF
 - Smallest ~20 SF (closet-sized)
 - Typical ~250SF
- Most tenants want 1,000 SF+, contiguous spaces to transition into, but that does not exist.
- \$35/SF office and \$50/SF lab spaces, all inclusive
- Approximately 60% Lab Space to 40% Office Space



LAB TOUR TAKE-AWAYS...

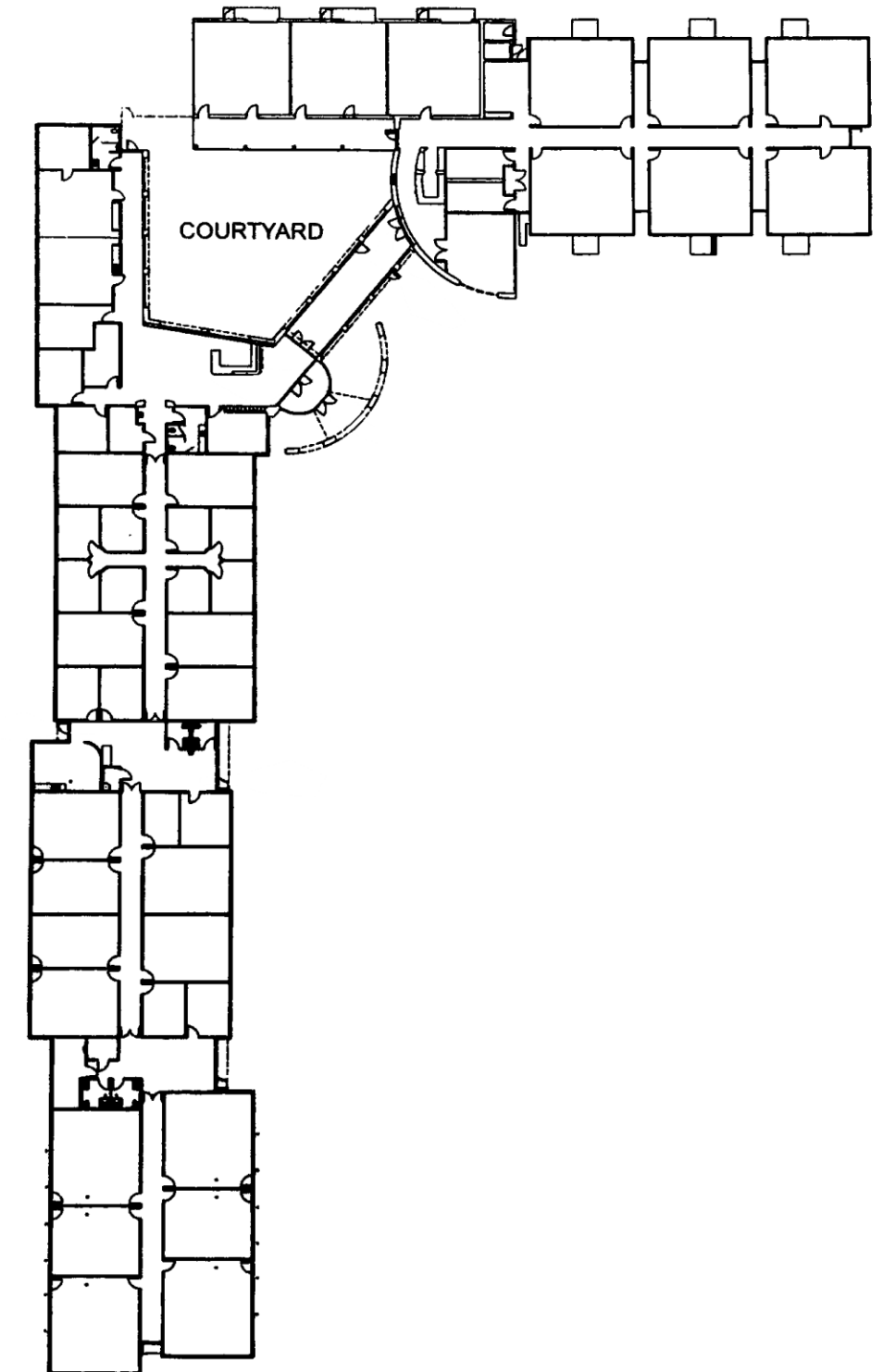
THE BIOSCIENCE CENTER



LAB TOUR TAKE-AWAYS...

SANTA FE BUSINESS INCUBATOR SPACE

- Total size: 30,000 SF
- This building was purpose built as an incubator space in 1997 and expanded on in 2001.
- The incubator is operating at high capacity with strong demand, including a wait list. Indicates need for larger labs.
- Labs are small in size but larger than The BioScience Center:
 - ∞ Largest ~840 SF
 - ∞ Range ~200SF – 840SF
- Tenants Rental Costs for this facility are very low, in the dollars per square foot range
- Approximately 60% Lab Space to 40% Office Space
- Successful shared wet lab (~672 SF) with equipment and reservable bench space (rentable for \$1000/month)
- Currently has 2 large tenants that are leasing a majority of the lab space, freeing up this space with new larger labs would allow for smaller start-ups to move in.



LAB TOUR TAKE-AWAYS...

SANTA FE INCUBATOR SPACE





FINAL REPORT TABLE OF CONTENTS

PROPOSED TABLE OF CONTENTS

NEW MEXICO BIOSCIENCE AUTHORITY Feasibility Study, Wet and Dry Lab and Shared Office Facility

Volume 1

- 1. Executive Summary
 - Study Purpose and Objectives
 - Key Findings
 - Recommended Scenario and Site
 - Cost Overview
 - Implementation Roadmap Overview
- 2. Project Overview
 - Background and Project Context referencing takeaways from NM GrowBio Report
 - Study Goals, Vision and Success Criteria
 - Scope of Work
 - Methodology and Process Overview
 - Stakeholder Engagement Summary
- 3. Market Context & Benchmarking
 - Bioscience Industry Trends & Peer Facility Benchmarking
 - Incubator and Multi-Tenant Lab Best Practices
 - Implications for Albuquerque / New Mexico
 - Building Tours
 - Comparable Lab Tours and Take-aways
- 4. Program Requirements
 - Space Needs and Program
 - Program Guideplate Board
 - Wet vs. Dry Lab Mix, Shared Amenities & Core Facilities
 - Functional Relationship Diagram
- 5. Site Analysis & Evaluation
 - Site Identification and Description
 - Fatpipe Building
 - Existing Conditions Assessment
 - Building Systems Assessment
 - Code and Regulatory Considerations
 - Opportunities and Development Constraints
 - Innovate Site
 - Existing Conditions Assessment
 - Building Systems Site Assessment
 - Code and Zoning Considerations
 - Opportunities and Constraints
- 6. Development Scenarios
 - Scenario A: FatPipe Renovation / Adaptive Reuse
 - Program Test Fits

- Architecture & Interiors
 - Laboratory Planning
 - Building Systems Approach
- Scenario B: New Construction
 - Massing and Site Concept
 - Blocking & Stacking Concept Plan Options
 - Architecture & Interiors
 - Laboratory Planning
 - Building Systems Approach
- 7. Building Systems & Technical Consideration Narratives
 - Mechanical, Electrical, and Plumbing Systems
 - Laboratory Infrastructure Requirements
 - Biosafety and Code Compliance
 - Flexibility and Future Expansion
 - Sustainability and Energy Considerations
- 8. Cost Analysis & Financial Considerations
 - Cost Modeling Methodology
 - Order-of-Magnitude Cost Estimates
 - New Construction vs. Renovation Cost Comparison
- 9. Comparative Evaluation
 - Site Evaluation Criteria
 - Site Selection Matrix
 - Access, Zoning, and Development Constraints
 - Site Ranking and Recommendation
 - Pros and Cons Analysis
- 10. Implementation Strategy
 - Recommended Approach
 - Project Delivery Considerations
 - Phasing & Operational Considerations
- 11. Conclusions & Recommendations
 - Preferred Site and Development Strategy
 - Path Forward

Volume 2

- A. Detailed Program Tables
- B. Site Selection Matrix (Full)
- C. Workshop Presentations & Notes
- D. Cost Model Backup
- E. Concept Diagrams and Graphics



PROGRAM & SQUINTY BOARD UPDATE

PRELIMINARY PROGRAM DEVELOPMENT | BSA PROGRAM

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~25,000 GSF)				
Facility Summary	Staff	Efficiency	Total ASF	Total GSF
Wet + Dry Lab and Shared Office Facility	72	65%	16,071	24,725
Facility TOTAL	72	65%	16,071	24,725

16K ASSIGNABLE SQUARE FEET (ASF)

NOT THE SAME

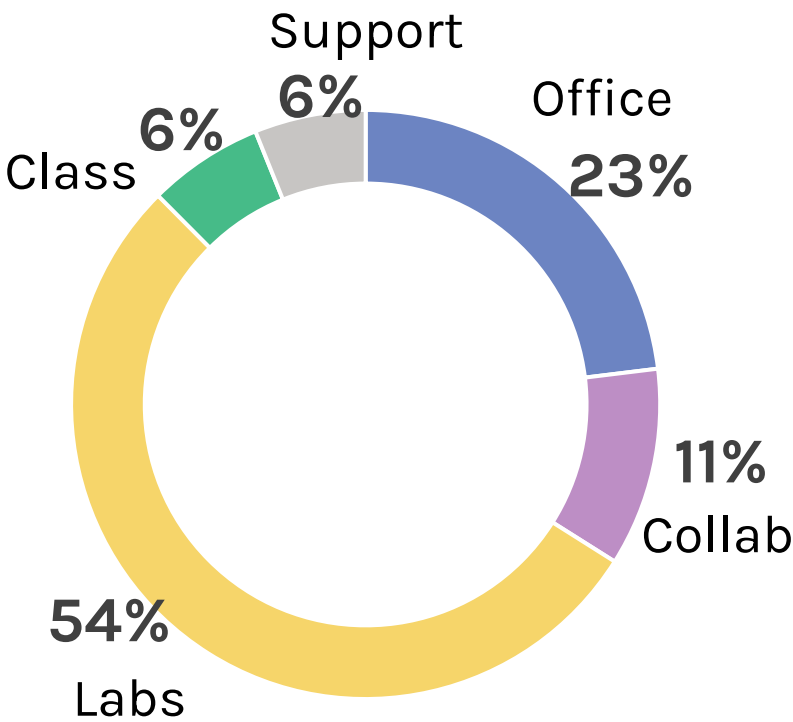
25K GROSS SQUARE FEET (GSF)

PRELIMINARY PROGRAM DEVELOPMENT | BSA PROGRAM

Wet + Dry Lab and Shared Office Facility							
Space Name	Staff	NSF	Qty.	Total NSF	Mult.	ASF	Total ASF
Office							
Buiding Management Office	5	62	5	310	1.3	403	
Tenant Office - Single	7	62	7	434	1.3	564	
Tenant Office - 2PPL	16	95	8	760	1.3	988	
Tenant Office - 3PPL	12	120	4	480	1.3	624	
Tenant Office - 5PPL	20	190	4	760	1.3	988	
Shared Work Area	12	25	12	300	1.3	390	
Sub-Total	72			3,044			3,957
Collaboration							
Entry Lobby		600	1	600	1.0	600	
Break Room		250	2	500	1.0	500	
Open Huddle		120	1	120	1.0	120	
Conference - Small		120	1	120	1.0	120	
Conference - Medium		240	2	480	1.0	480	
Conference - Large		500	0	0	1.0	0	
Phone/Focus		25	2	50	1.0	50	
Sub-Total	0			1,870			1,870

Classroom							
40-Person Classroom		1,089	1	1,089	1.0	1,089	
Sub-Total	0			1,089			1,089
Laboratory							
Lab Sm		363	4	1,452	1.0	1,452	
Lab Med		726	3	2,178	1.0	2,178	
Lab Large		1,089	4	4,356	1.0	4,356	
Shared Lab Support		242	3	726	1.0	726	
Showcase Lab		484	1	484	1.0	484	
Sub-Total	0			9,196			9,196
Support							
Shared Support		242	2	484	1.0	484	
Staging		242	1	242	1.0	242	
Chemical Storage		121	1	121	1.0	121	
Bio Waste		121	1	121	1.0	121	
Wellness Room		80	1	80	1.0	80	
Sub-Total	0			1,048			1,048

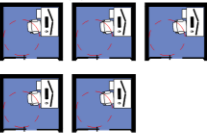
SQUINTY VIEW BSA PROGRAM



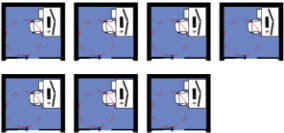
GRAPHIC PROGRAM

OFFICE

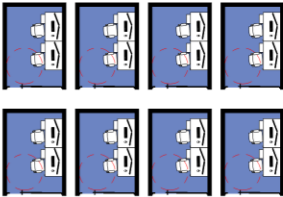
BUILDING MANAGEMENT OFFICE (5)



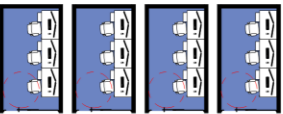
TENANT OFFICE SINGLE (7)



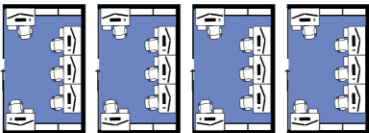
TENANT OFFICE 2PPL (8)



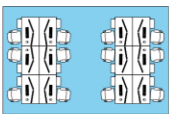
TENANT OFFICE 3PPL (4)



TENANT OFFICE 5PPL (4)

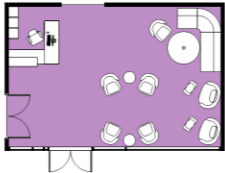


SHARED WORK AREA (12)

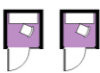


COLLABORATION / LECTURE

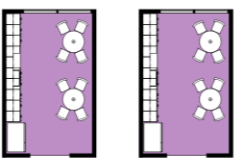
ENTRY LOBBY



PHONE/FOCUS (2)



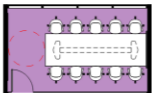
BREAK ROOM (2)



CONFERENCE - SMALL



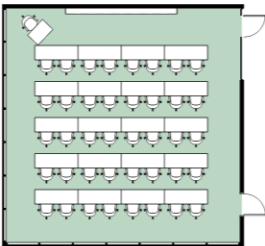
CONFERENCE - MED (2)



OPEN HUDDLE



LARGE LECTURE / FLEX CLASSROOM



LABORATORY

LABORATORY SMALL 363SF (4)



LABORATORY MEDIUM 726SF (3)



LABORATORY LARGE 1089SF(4)



SHOWCASE LABORATORY 484SF

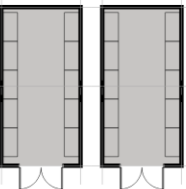


LABORATORY SUPPORT 242SF (3)

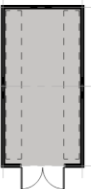


SUPPORT

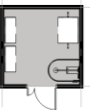
SHARED SUPPORT (2)



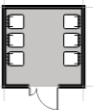
STAGING



CHEMICAL STORAGE



BIO WASTE



WELLNESS ROOM



PRELIMINARY PROGRAM DEVELOPMENT | BSA PROGRAM + FUTURE

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~40,000 GSF)				
Facility Summary	Staff	Efficiency	Total ASF	Total GSF
Wet + Dry Lab and Shared Office Facility	118	65%	25,749	39,613
Facility TOTAL	118	65%	25,749	39,613

26K ASSIGNABLE SQUARE FEET (ASF)

NOT THE SAME

40K GROSS SQUARE FEET (GSF)

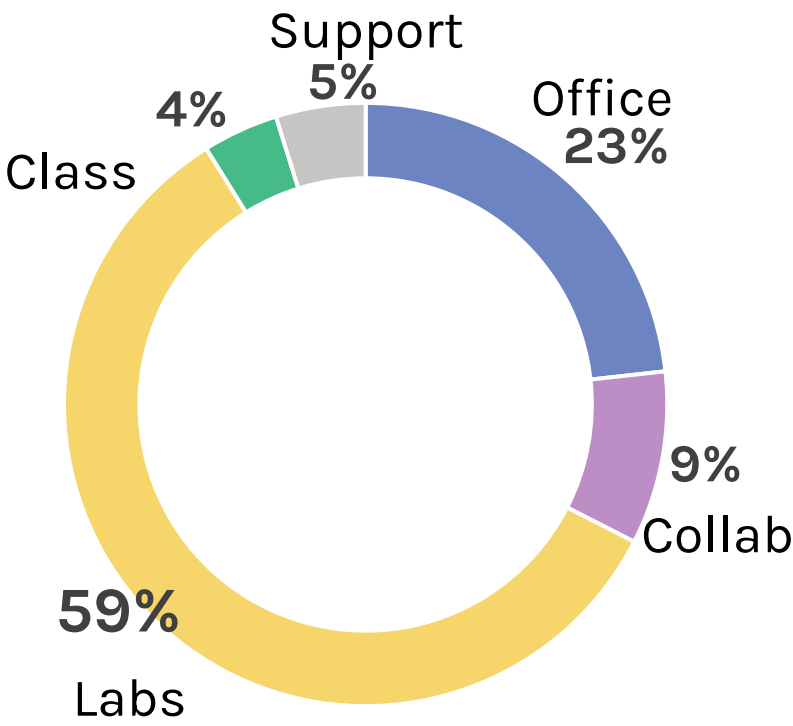
PRELIMINARY PROGRAM DEVELOPMENT | BSA PROGRAM + FUTURE

Wet + Dry Lab and Shared Office Facility							
Space Name	Staff	NSF	Qty.	Total NSF	Mult.	ASF	Total ASF
Office							
Buiding Management Office	5	62	5	310	1.3	403	
Tenant Office - Single	7	62	7	434	1.3	564	
Tenant Office - 2PPL	30	95	15	1,425	1.3	1,853	
Tenant Office - 3PPL	27	120	9	1,080	1.3	1,404	
Tenant Office - 5PPL	25	190	5	950	1.3	1,235	
Shared Work Area	24	25	24	600	1.3	780	
Sub-Total	118			4,799			6,239
Collaboration							
Entry Lobby		650	1	650	1.0	650	
Break Room		450	2	900	1.0	900	
Open Huddle		120	1	120	1.0	120	
Conference - Small		120	2	240	1.0	240	
Conference - Medium		240	2	480	1.0	480	
Conference - Large		500	0	0	1.0	0	
Phone/Focus		25	4	100	1.0	100	
Sub-Total	0			2,490			2,490

Classroom							
40-Person Classroom		1,089	1	1,089	1.0	1,089	
Sub-Total	0			1,089			1,089
Laboratory							
Lab Sm		363	7	2,541	1.0	2,541	
Lab Med		726	6	4,356	1.0	4,356	
Lab Large		1,089	7	7,623	1.0	7,623	
Lab Support		242	3	726	1.0	726	
Showcase Lab		484	1	484	1.0	484	
Sub-Total	0			15,730			15,730
Support							
Shared Support		242	3	726	1.0	726	
Staging		242	1	242	1.0	242	
Chemical Storage		121	1	121	1.0	121	
Bio Waste		121	1	121	1.0	121	
Wellness Room		80	1	80	1.0	80	
Sub-Total	0			1,290			1,290

SQUINTY VIEW

BSA PROGRAM + FUTURE



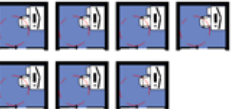
GRAPHIC PROGRAM

OFFICE

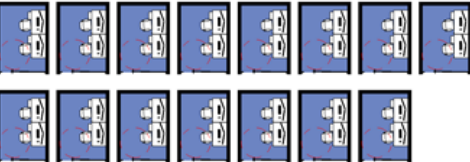
BUILDING MANAGEMENT OFFICE (5)



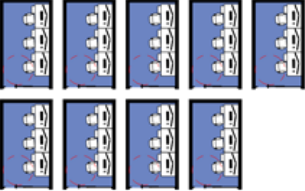
TENANT OFFICE SINGLE (7)



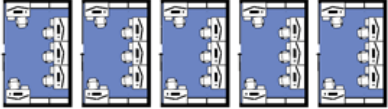
TENANT OFFICE 2PPL (15)



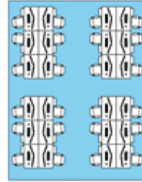
TENANT OFFICE 3PPL (9)



TENANT OFFICE 5PPL (5)

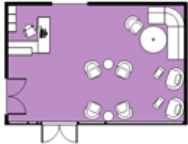


SHARED WORK AREA (24)



COLLABORATION / LECTURE

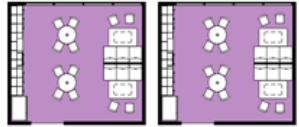
ENTRY LOBBY



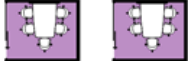
PHONE/FOCUS (4)



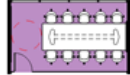
BREAK ROOM (2)



CONFERENCE - SMALL (2)



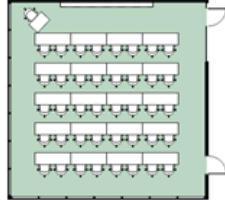
CONFERENCE - MED (2)



OPEN HUDDLE



LARGE LECTURE / FLEX CLASSROOM



LABORATORY

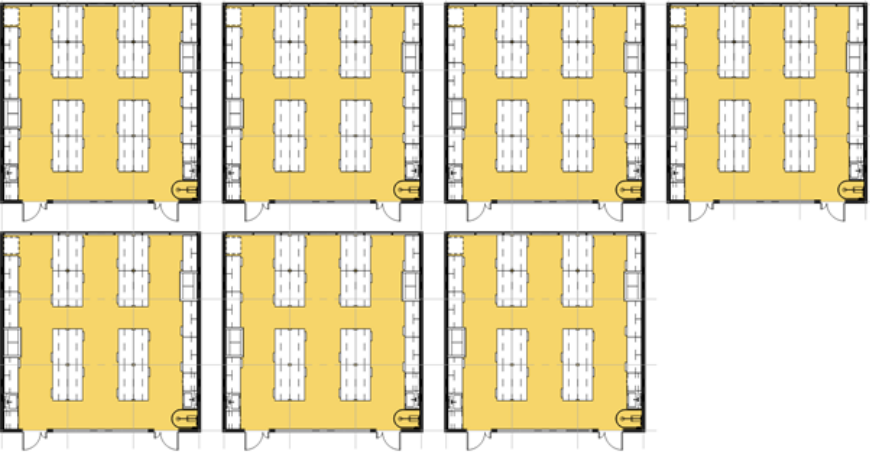
LABORATORY SMALL 363SF (7)



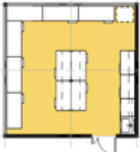
LABORATORY MEDIUM 726SF (6)



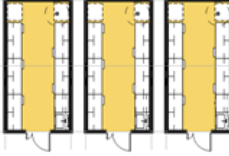
LABORATORY LARGE 1089SF (7)



SHOWCASE LABORATORY 484 SF

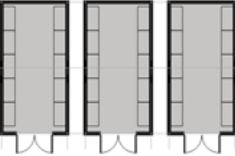


LABORATORY SUPPORT 242SF (3)

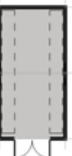


SUPPORT

SHARED SUPPORT (3)



STAGING



CHEMICAL STORAGE

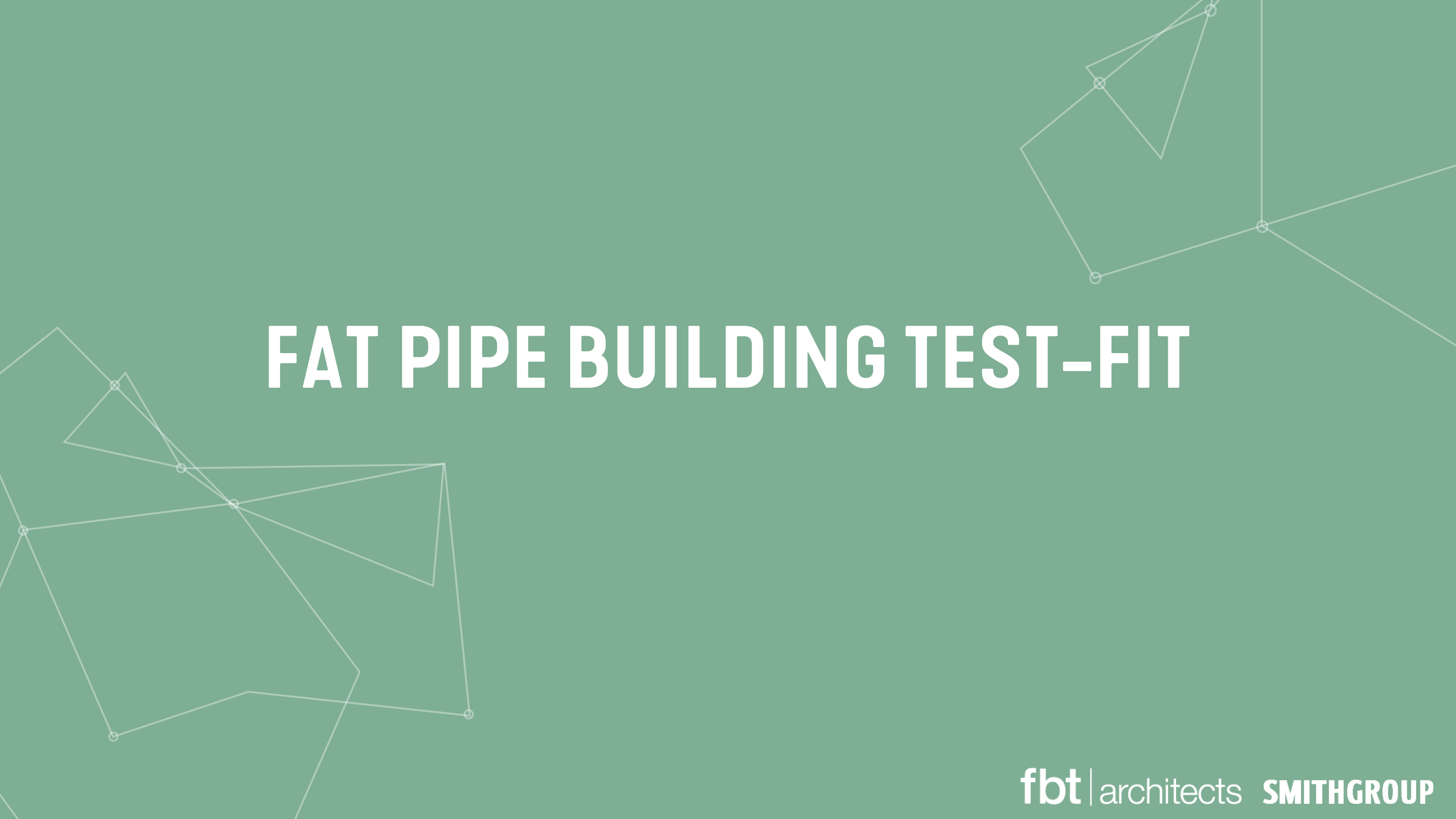


BIO WASTE



WELLNESS ROOM



The background is a solid teal color. In the top-left and bottom-left corners, there are abstract line art designs consisting of thin white lines forming various geometric shapes and polygons. In the top-right corner, there is a small cluster of white dots connected by thin white lines, resembling a network or a stylized architectural detail.

FAT PIPE BUILDING TEST-FIT

FAT PIPE ABQ



FAT PIPE ABQ TEST FIT

NEW MEXICO BIOSCIENCE AUTHORITY FEASIBILITY STUDY (~12,000 GSF FAT PIPE)				
Facility Summary	Staff	Efficiency	Total ASF	Total GSF
Wet + Dry Lab and Shared Office Facility	44	62%	7,653	12,355
Facility TOTAL	44	62%	7,653	12,355

7,653 ASF

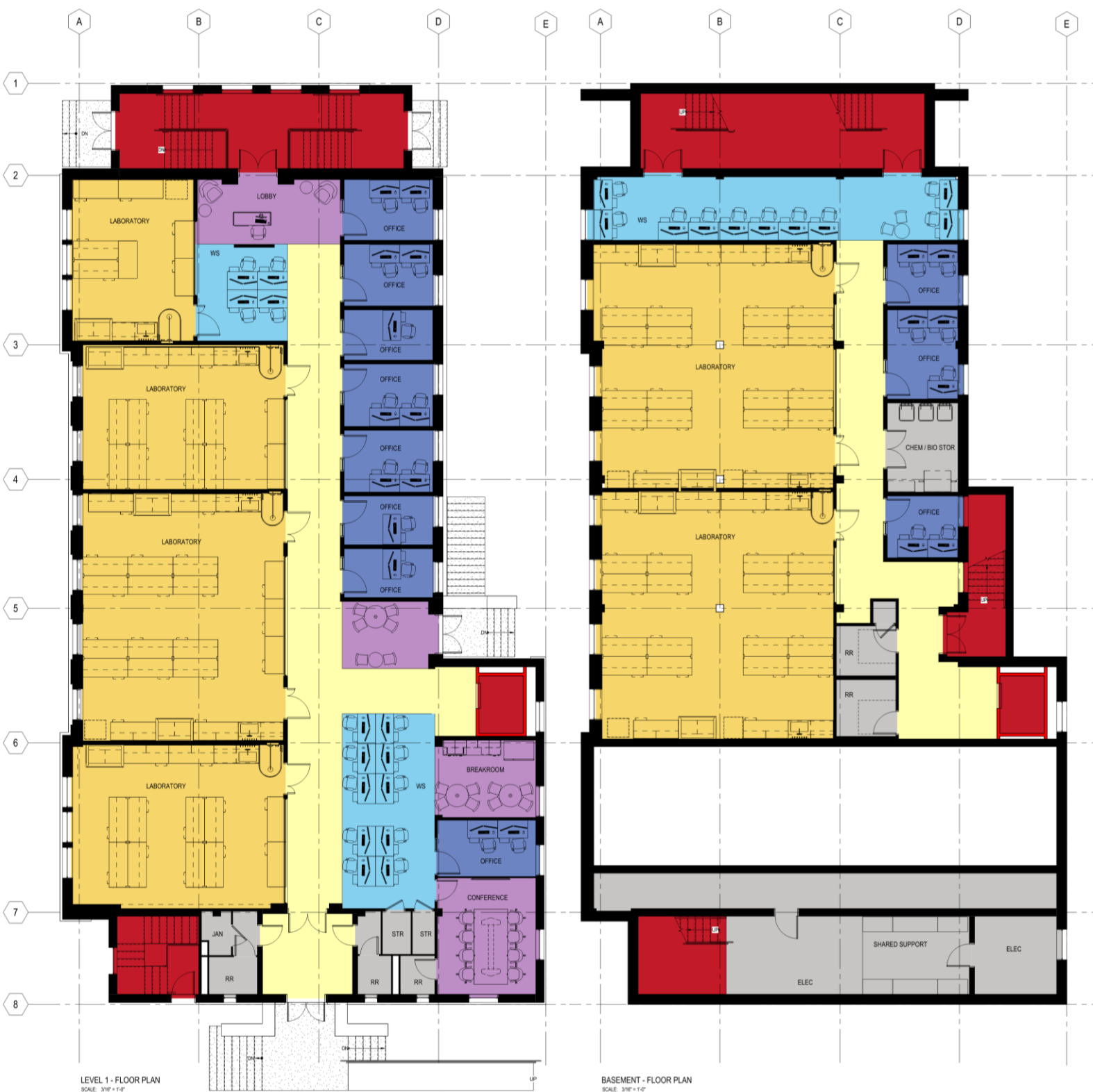
59% LABS

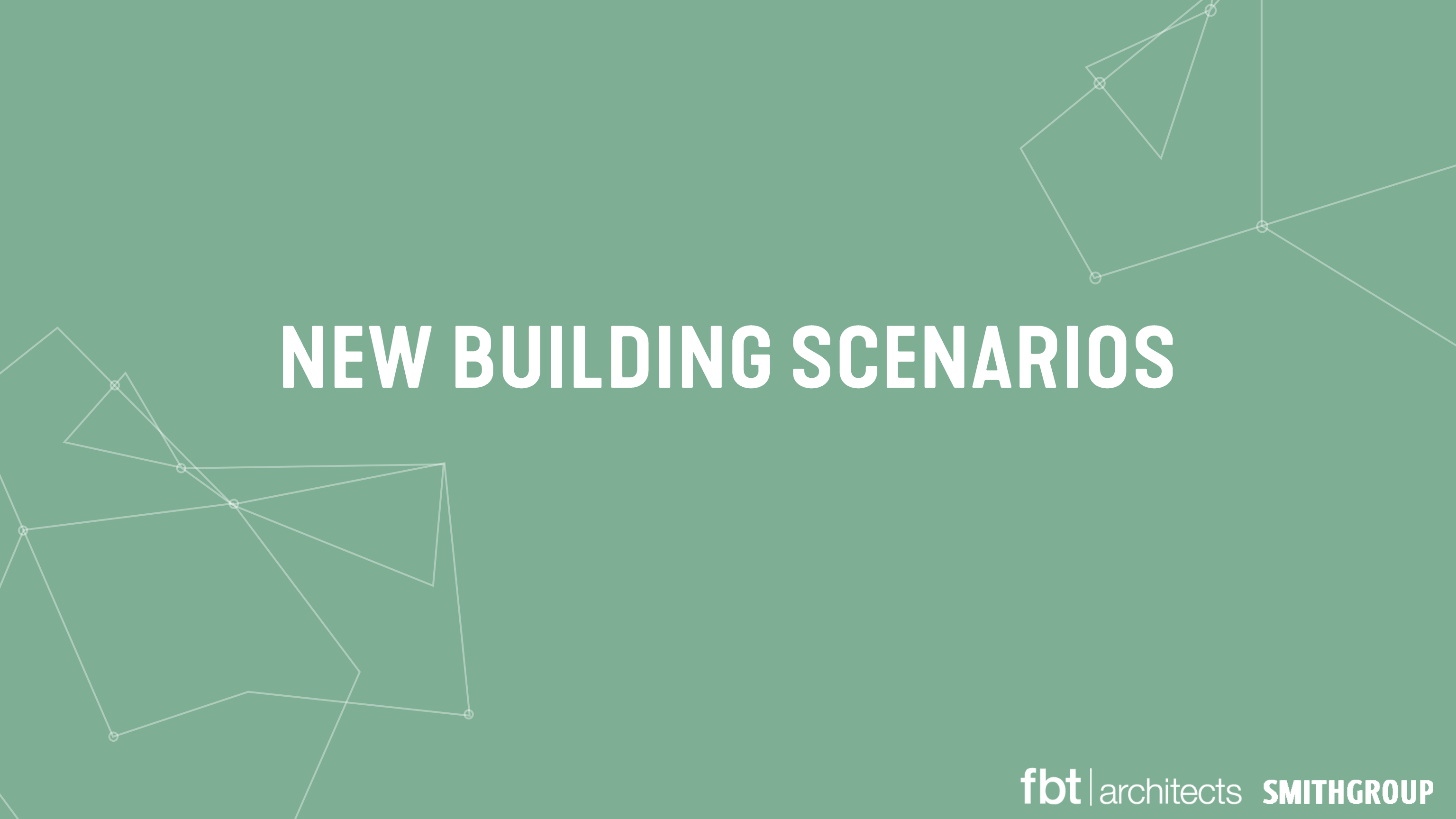
6 WET LABS

- (1) SMALL 363 SF LAB
- (2) MED 584 SF LAB
- (1) MED 900 SF LAB
- (2) LG 1,065 SF LAB

10 OFFICES

- (3) BUILDING MANAGEMENT
- (7) 2 PEOPLE OFFICE
- (1) 3 PEOPLE OFFICE
- (24) OPEN WORKSTATIONS



The background is a solid teal color. In the top-left and bottom-left corners, there are abstract geometric line art designs consisting of thin white lines forming various polygons and triangles, with some lines intersecting at small circles. In the top-right corner, there is a similar abstract geometric line art design, also consisting of thin white lines forming polygons and triangles, with some lines intersecting at small circles.

NEW BUILDING SCENARIOS

SCENARIO 1 – 25,000 GSF BSA PROGRAM

LEVEL 1
~14,000GSF

NMBSA BASE SCENARIO
17,714 ASF

52% LABS

15 WET LABS

- (3) SMALL 242 SF LAB
- (4) SMALL 363 SF LAB
- (1) SHOWCASE 484 SF LAB
- (3) MEDIUM 726 SF LAB
- (4) LARGE 1,089 SF LAB

33 OFFICES + 12 WORKSTATIONS

- (5) BUILDING MANAGEMENT
- (10) SINGLE OFFICE
- (8) 2 PERSON OFFICE
- (6) 3 PERSON OFFICE
- (4) 5 PERSON OFFICE
- (12) OPEN WORKSTATIONS



SCENARIO 1 – 25,000 GSF BSA PROGRAM

LEVEL 2
~12,000 GSF

LEVEL 3
~12,000GSF



SCENARIO 2 - 40,000 GSF BSA PROGRAM + FUTURE

GROUND LEVEL
~24,300 GSF

NMBSA BASE + FUTURE SCENARIO

30,906 ASF

51% LABS

24 WET LABS

(3) SMALL

242 SF LAB

(7) SMALL

363 SF LAB

(1) SHOWCASE

484 SF LAB

(6) MED

726 SF LAB

(7) LARGE

1,089 SF LAB

49 OFFICES + 36 WS

(6) BUILDING MANAGEMENT

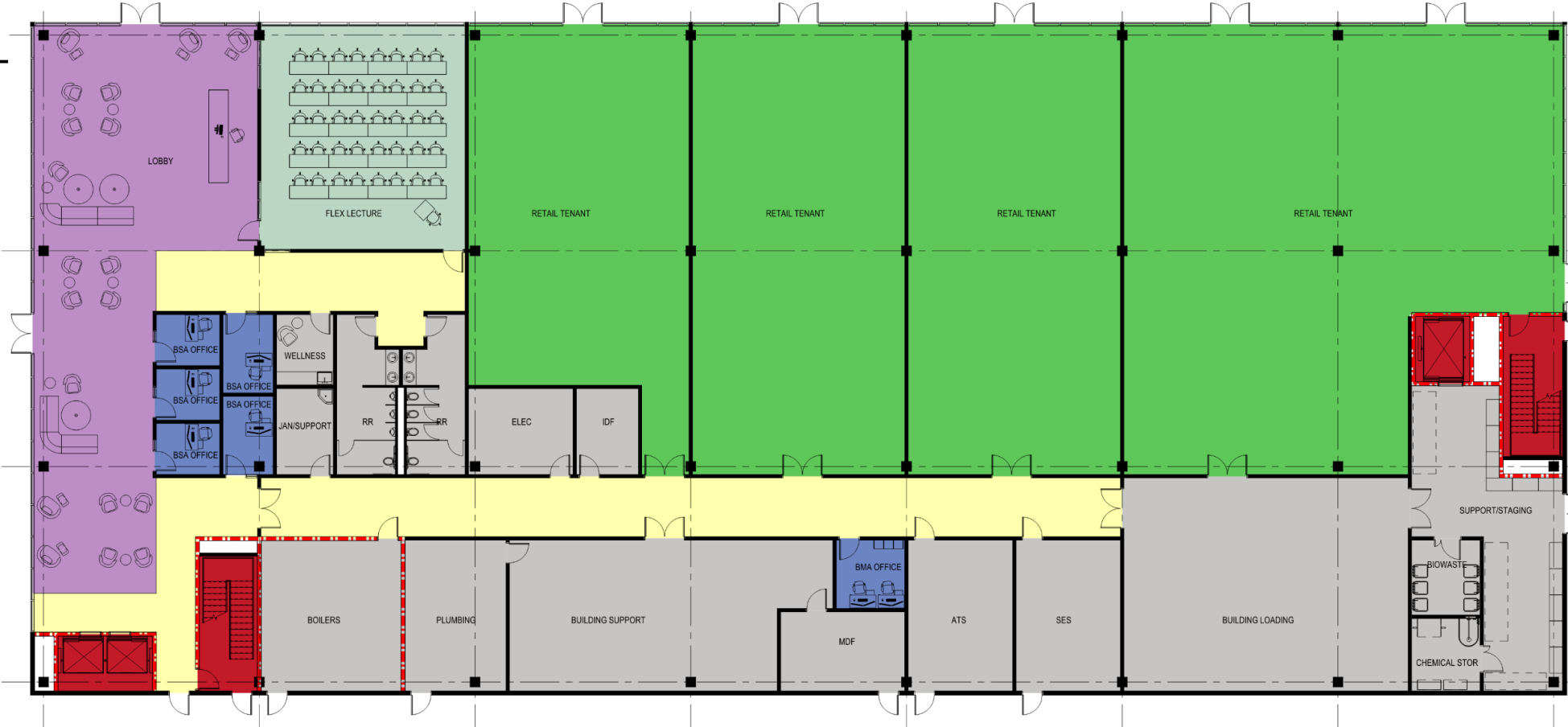
(12) SINGLE OFFICE

(14) 2PPL OFFICE

(12) 3PPL OFFICE

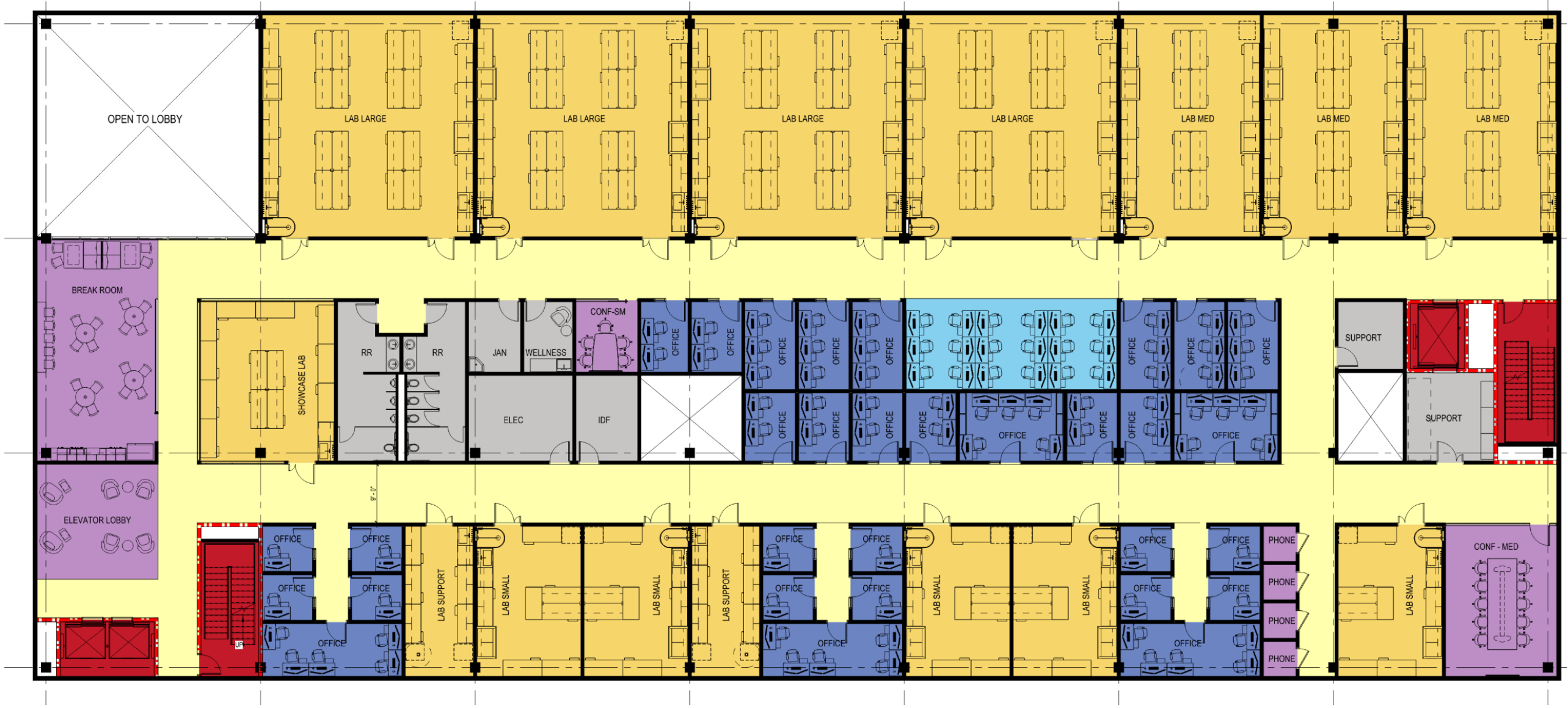
(5) 5PPL OFFICE

(36) OPEN WORKSTATIONS



SCENARIO 2 - 40,000 GSF BSA PROGRAM + FUTURE

LEVEL 2
~24,300 GSF



SCENARIO 2 - 40,000 GSF BSA PROGRAM + FUTURE

LEVEL 3
~15,700 GSF

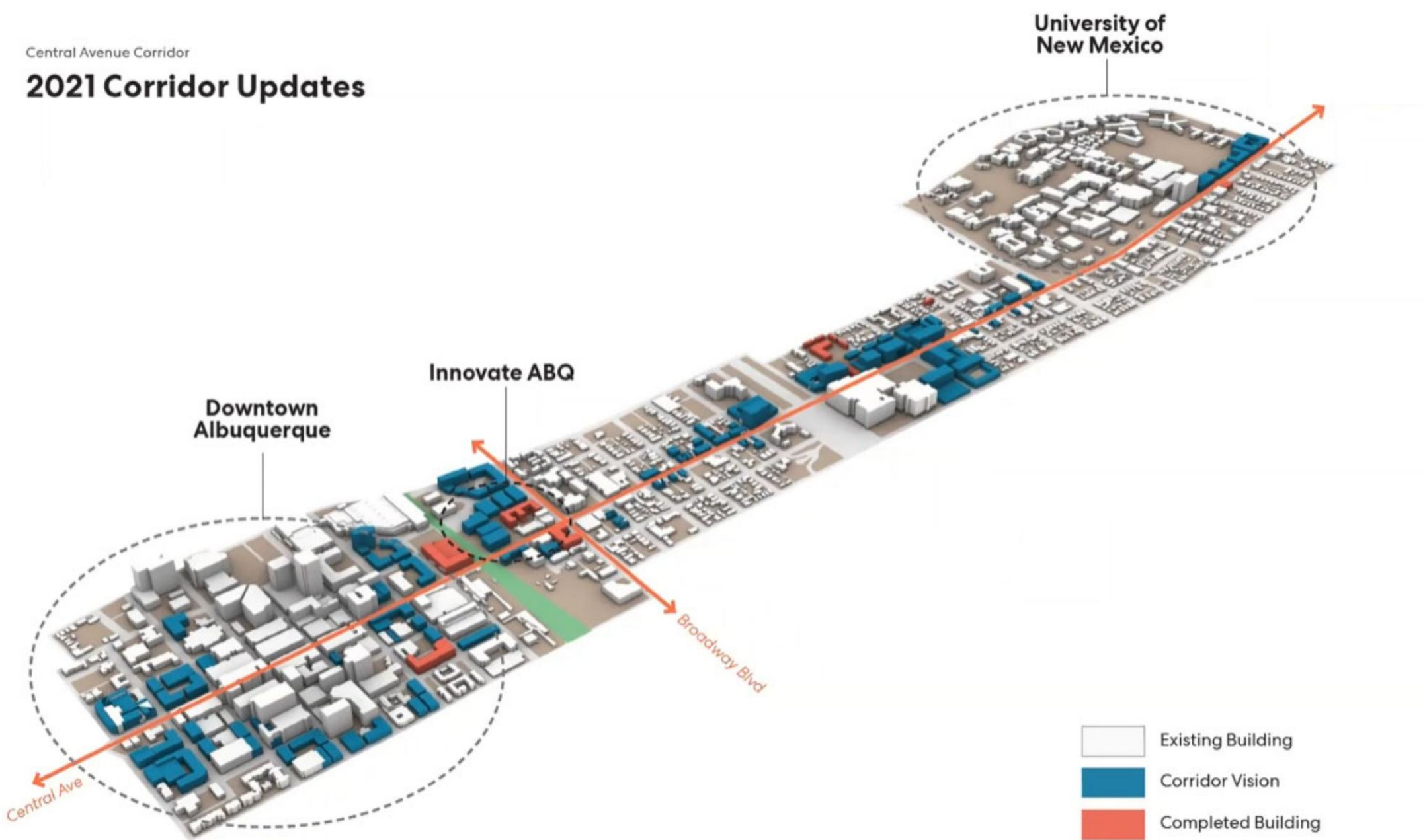


The background is a solid teal color. In the top-left and bottom-left corners, there are abstract geometric line art designs consisting of thin white lines forming various polygons and triangles, with small circles at some of the vertices. In the top-right corner, there is a similar abstract geometric line art design, also in white, featuring a series of connected lines and small circles at some vertices.

NEW SITE OPTIONS

RAINFOREST SITE

INITIAL OBSERVATIONS



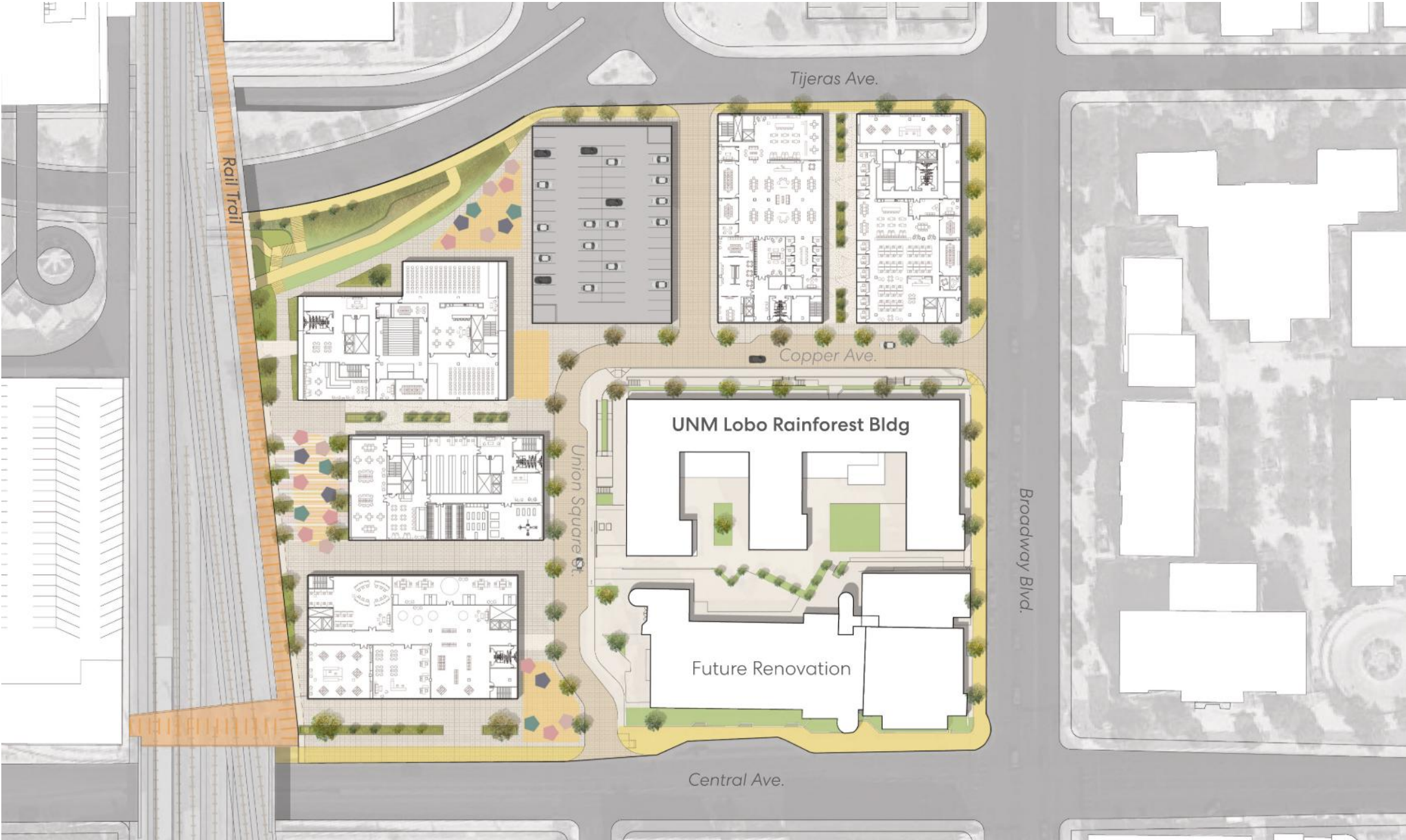
RAINFOREST SITE

INITIAL OBSERVATIONS



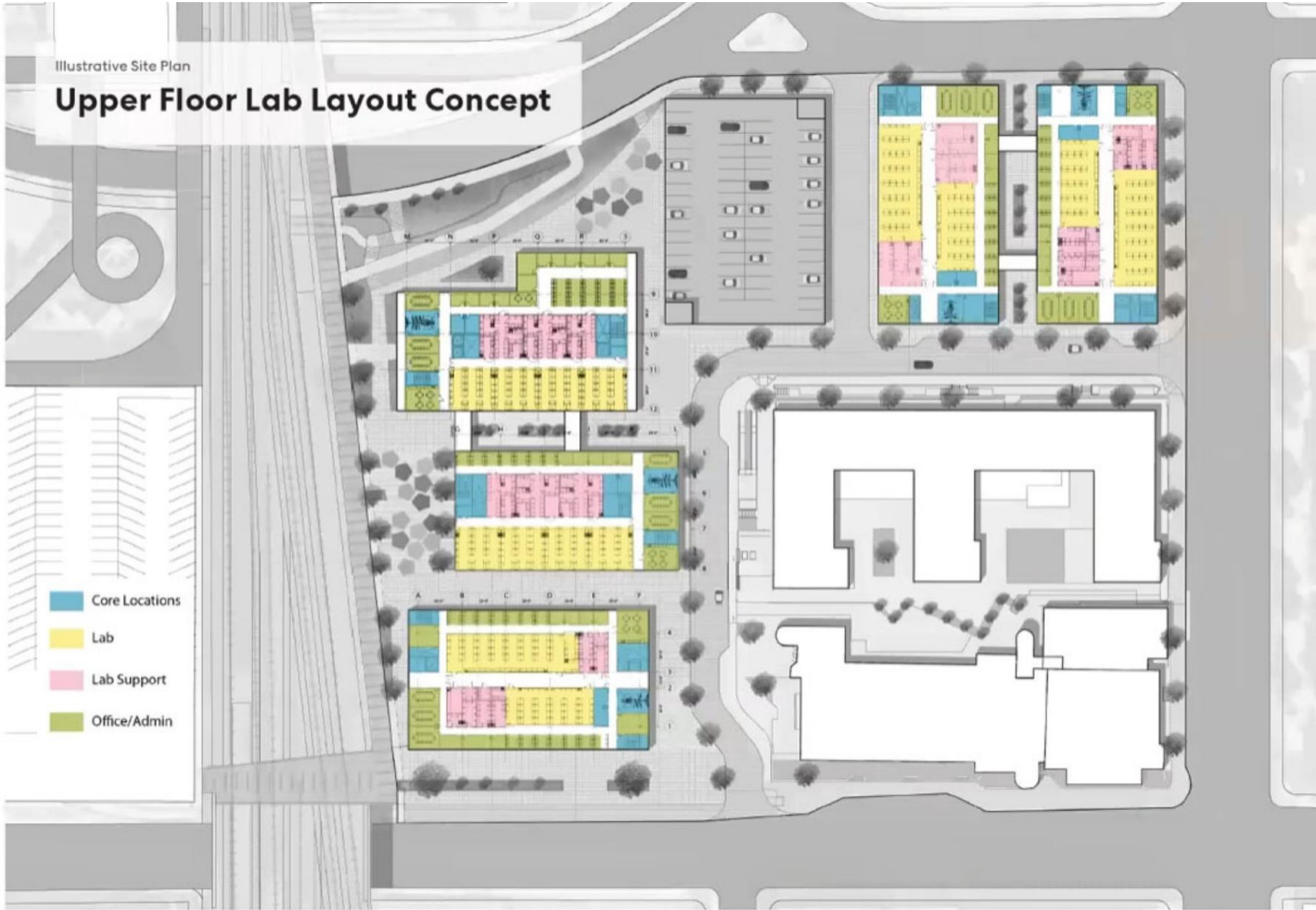
RAINFOREST SITE

INITIAL OBSERVATIONS



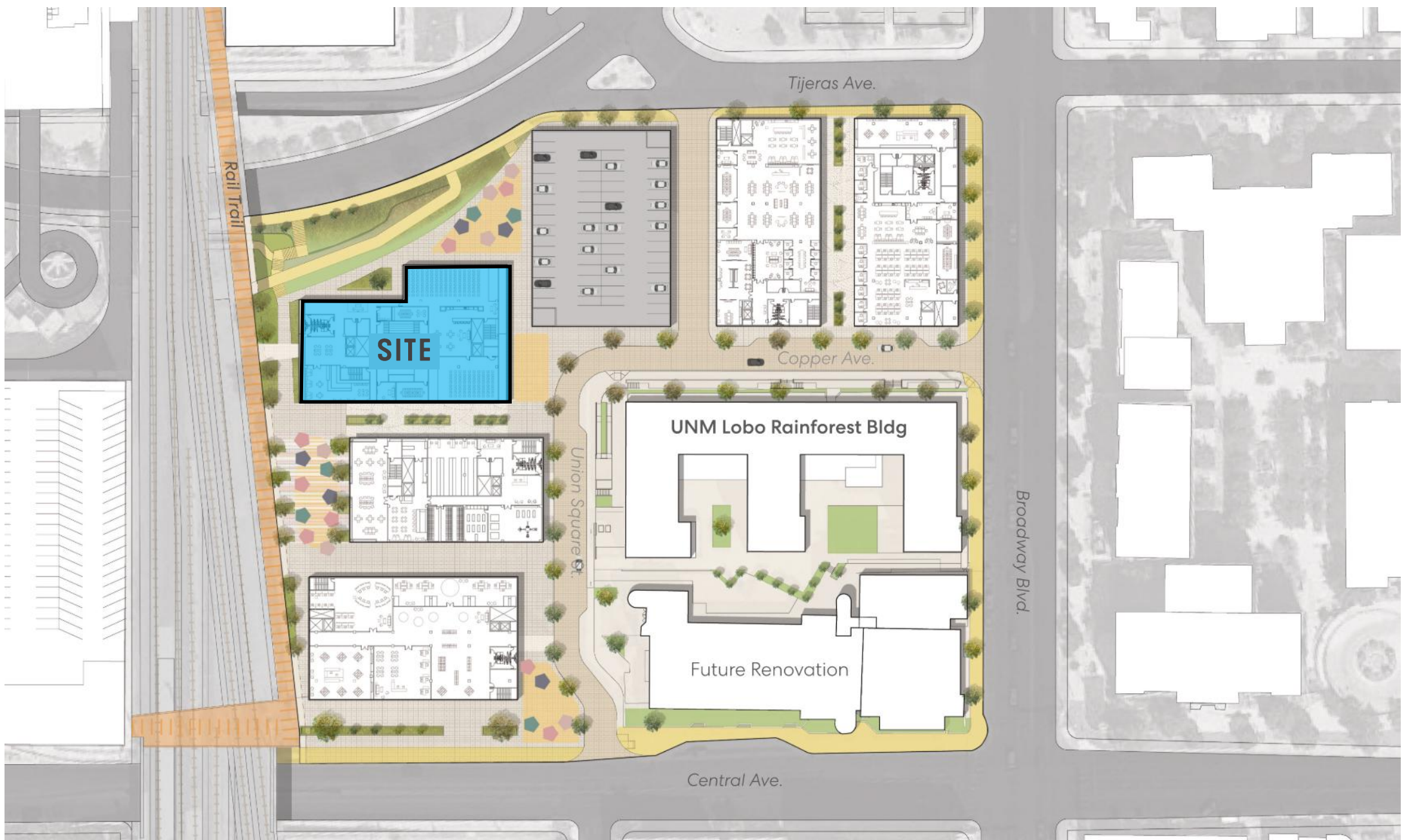
RAINFOREST SITE

INITIAL OBSERVATIONS



RAINFOREST SITE

INITIAL OBSERVATIONS

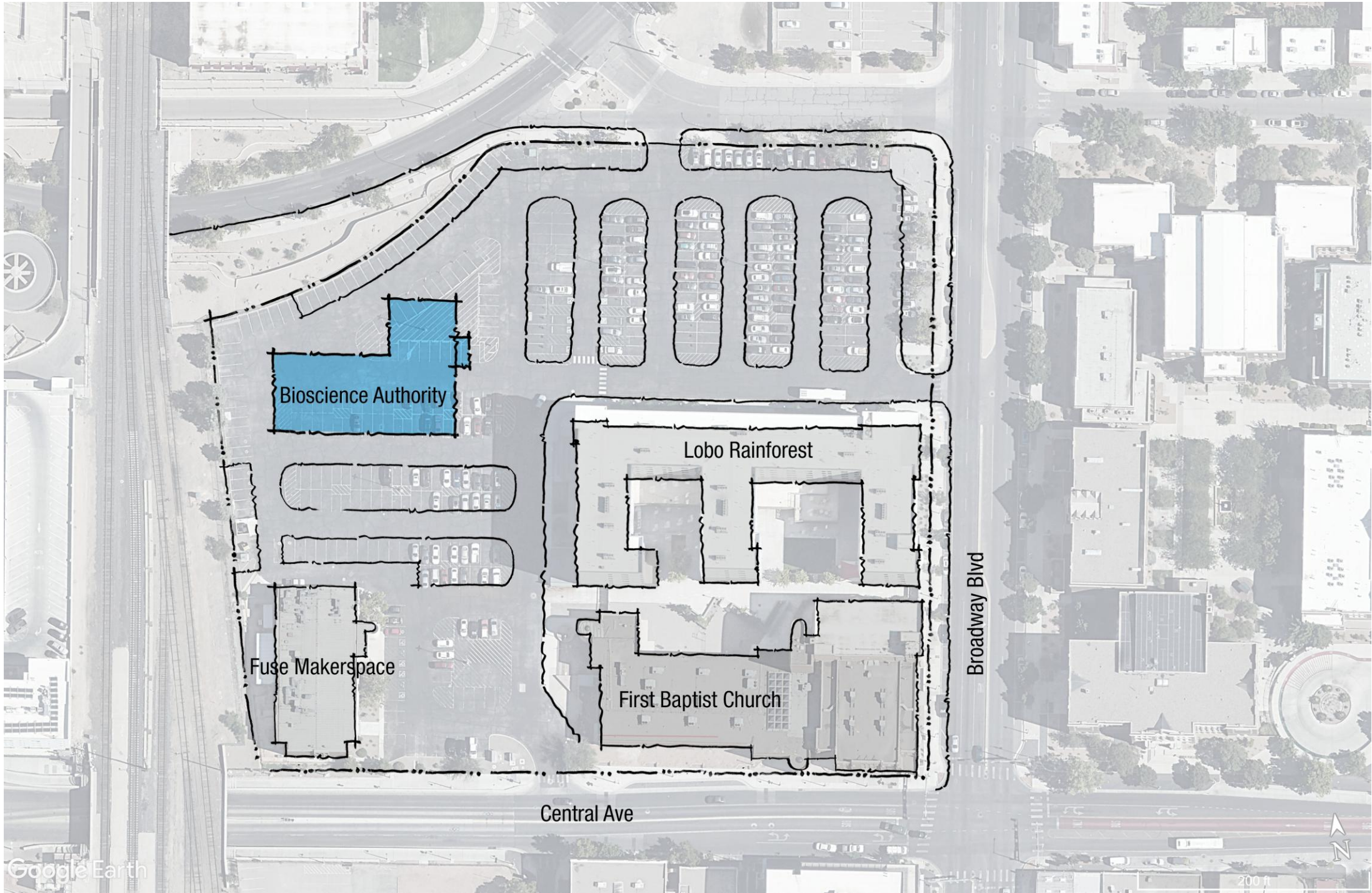


RAINFOREST SITE

INITIAL OBSERVATIONS

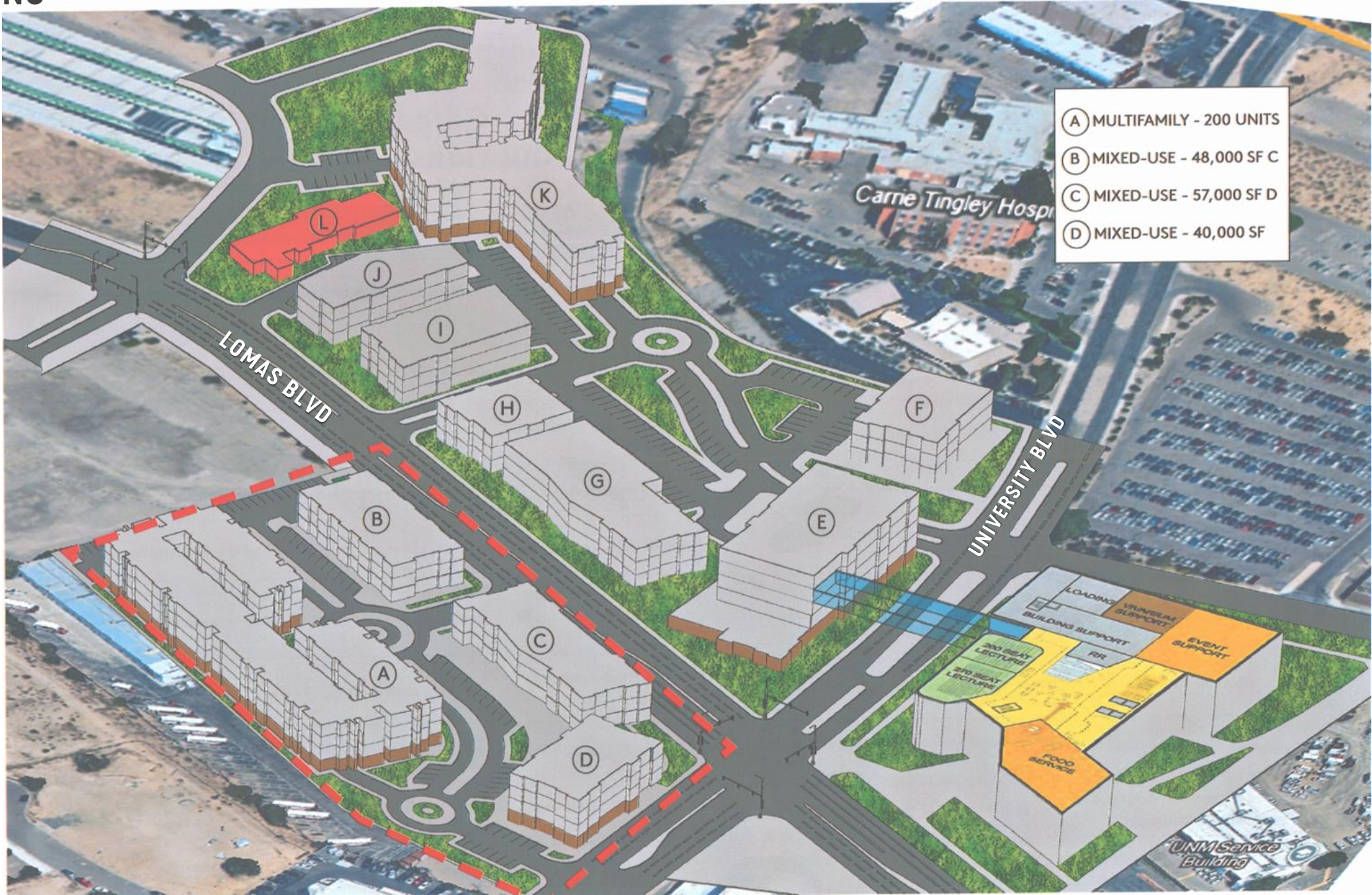


RAINFOREST SITE



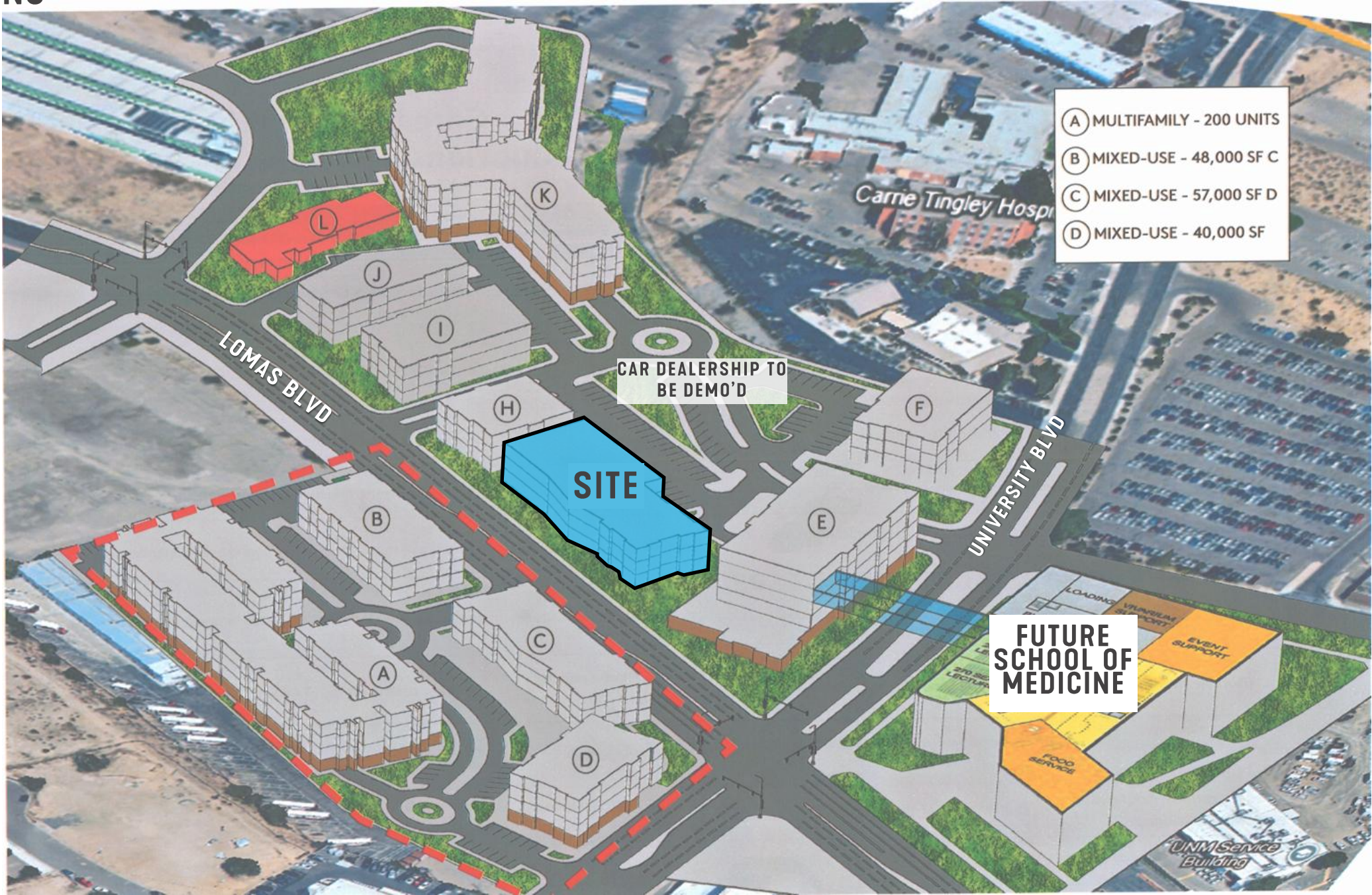
LOMAS CORRIDOR

INITIAL OBSERVATIONS



LOMAS CORRIDOR

INITIAL OBSERVATIONS

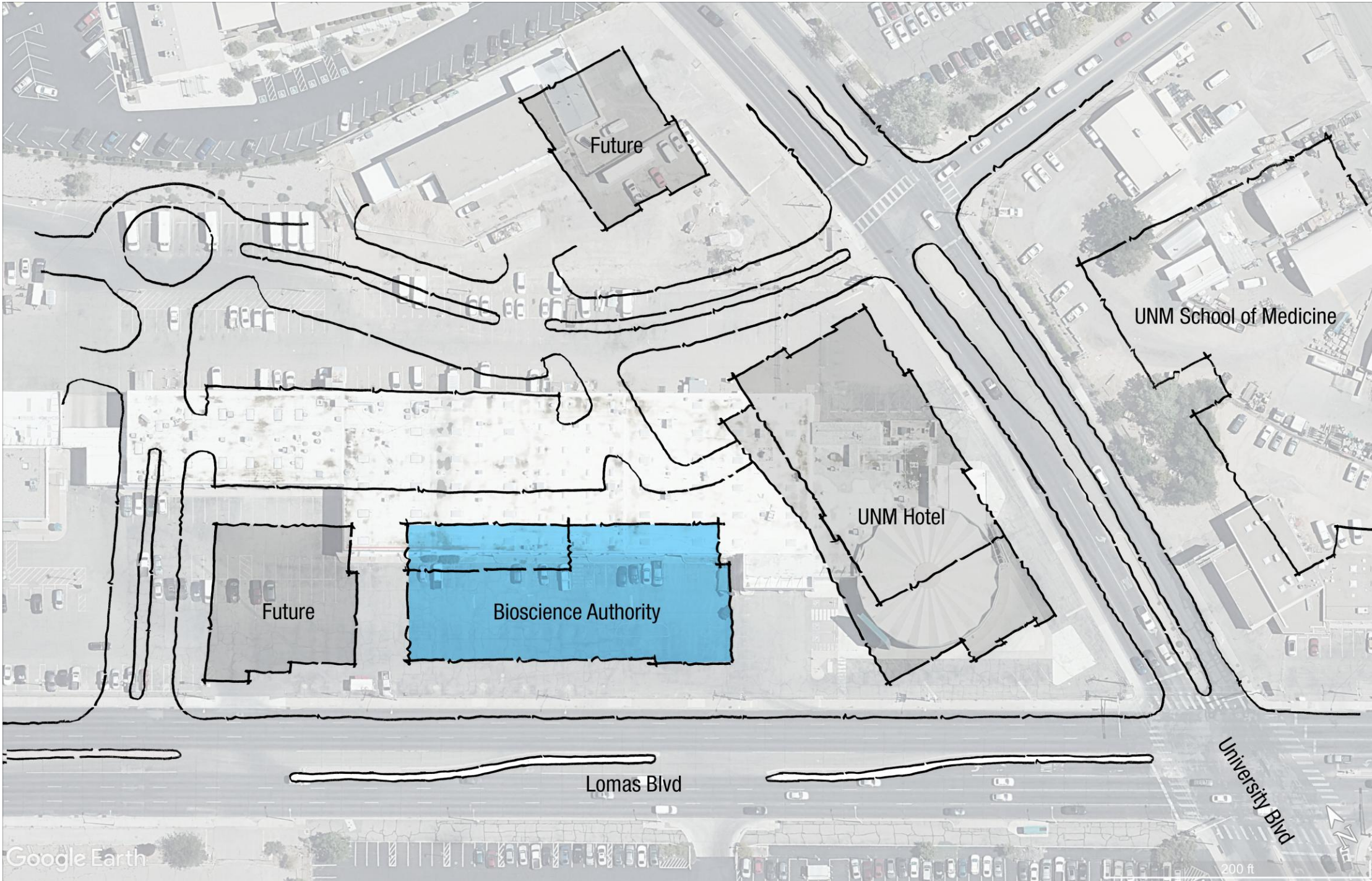


LOMAS CORRIDOR

INITIAL OBSERVATIONS



LOMAS CORRIDOR





SITE SELECTION CRITERIA

SITE SELECTION CRITERIA MATRIX

DISCUSS CRITERIA AND WEIGHTING

- **Accommodation of Program**
 - Ceiling height, Lab layout efficiency
 - Access
 - Service loading, elevator, stair capacity
- **Location**
 - Proximity to Existing Research
 - Visibility
 - Transportation & Amenities
- **Building Systems**
 - Mechanical and Electrical Capacity & Availability
 - Lab Gas and Floor Drain Piping
 - Structure & Envelope
 - Vibration, Infiltration, Temperature & Humidity Control
- **Cost**
 - Initial Investment
 - Ongoing Costs

A		B	C	D	E	F	G	H
1	Site Evaluation Matrix							
2	2 = Yes/Very True/Agree							
3	1 = Somewhat Yes/Somewhat True/Somewhat Agree							
4	0 = No/Not True/Don't Agree							
5				Weighted Score				
6				FatPipe	New Site	Weight	FatPipe	New Site
7	Comments							
8	A	Program Requirements						
9		Optimal Program Distribution						
10	A.1	Laboratory Layout Efficiency and Flexibility			1	0	0	
11	A.2	Access i.e. Back-of-house Loading Service Corridor and stair and elevator access			1	0	0	
12				2	0	0		
13	B	Location						
14		Academic, Administrative, Research Community Access						
15	B.1	Proximity to Existing Research Collaboration			1	0	0	
16	B.2	Proximity to Existing Core Research Facilities			1	0	0	
17	B.3	Site has good access to main roadways			1	0	0	
18	B.4	Site will be in close proximity to parking structure or surface lot			1	0	0	
19	B.5	Site offers good visibility to public for visibility of state investment and to recruit research			1	0	0	
20	B.6	Site will have low noise level (dB)			1	0	0	
21				6	0	0		
22	C	Building Systems						
23		Broadcasting Requirements, Utilities, Water, Technology						
24	C.1	Mechanical and Electrical Capacity in Existing Building & Availability on New Site			1	0	0	
25	C.2	Telecom/fiber is within the vicinity (6 strands min. 100g bandwidth)			1	0	0	
26	C.3	Site does not require major reconfiguration of existing utilities			1	0	0	
27	C.4	Site provides low vibration levels (dB)			1	0	0	
28				4	0	0		
29								
30	D	Cost Impacts						
31		Site Development Costs, 3 most cost effective - 0 most expensive						
32	D.1	Cost / sf			1	0	0	
33	D.2	Shortest Schedule for Move-in			1	0	0	
34	D.3	Ongoing Costs i.e. land / building lease payments			1	0	0	
35				3	0	0		
36								
37								
38	Totals							
39	A	Program Requirements			2	0	0	
40	B	Location			6	0	0	
41	C	Building Systems			4	0	0	
42	D	Cost Impacts			3	0	0	
43						0	0	
						FatPipe	New Site	

Site Matrix



WRAP-UP



NEXT STEPS & HOMEWORK ASSIGNMENTS

HOMEWORK ASSIGNMENTS

- Confirm Ground Floor Tenant needs with Tom Neale – FBT/BSA/UNM
- Collect Innovate ABQ Study from UNM Tom Neale – FBT/UNM
- Finalize Fat Pipe Study - SG
- Schedule Workshop #3 second week of July
- Site Selection Weighted Scale Completion - BSA



THANK YOU

PROJECT	NMBSA WET & DRY LAB AND SHARED OFFICE FACILITY	MEETING NO.	1
PROJECT NO.	00101738	MEETING DATE	5/13/2026
SUBJECT	WORKSHOP 1	MEETING TIME	1:00pm – 3:00pm
PREPARED BY	Nhu Le, SmithGroup	MEETING LOCATION	FBT Architects Downtown Albuquerque, NM

NAME	COMPANY
Stephanie Tolfighi David Perkins Ryna Cangioli Paul Laur	NM BSA
Will McCrory Adam Denmark Nhu Le Jon Silhol Bianca Jimenez	SmithGroup(SG)
Sanjay Engineer Art Tatum Justin Milburn	FBT Architects

NOTES

****What drives success?**

David shows interest in Investor Breakfast

****CASE STUDIES**

David asked if the walls were fixed or demountable.

Paul - Agrees on the separation of lab and offices, for safety reasons, when people go into lab space, they want PPE and no food/drink

****GOALS AND VISIONS**

PROBLEMS:

-Paul: Lab space is important. Having shared Lab Space is great (LCMS for example is expensive). But the ability for privacy is important--how do you balance between private and share?

-Stephanie: 1000-1500SF lab space is lacking in NM. Right now, NM only has small Lab Spaces. Shared Lab space with expensive equipment is needed.

-David: is there enough power infrastructure? Server room? Use a lot of AI in research, needs a lot of server space. Might consider space for each lab space that users can bring in their own server.

-Paul: CA, gas, water, vacuum. Okay to provide location for cylinders and not everything house supply.

-Paul: Dedicated space for greenhouse? Some companies do research that needs greenhouse space. But this one needs to be separated from the main lab spaces.

- Discuss animal space but no need, users can partner with UNM
- Paul: Give company 3,000-5,000 SF space to grow, before they move out to be by themselves. This is a STEP UP for the start-up.
- Stephanie: Do you know how long the startup usually stays at Connect Labs? Want to help with the commercialization of the products, helping researchers with the business process and the resources.
- Ryan: Contract in place on how long someone can stay. Want this project to be a state project to access state funding. Some small Lab is still valuable, because still have first start up that needs small labs too.
- Ryan: The main goal of Bioscience is to attract and retain talents in NM
- Ryan: The program is not to make money, but to help the companies.
- Paul: Needs a BSL-2 Lab with restricted access. Want to look at lab space functionally for what work can be done there, and can potentially look at a large, shared lab. Companies can rent out benches. This is more for companies to do standard lab work there. Can be the lowest access point (cost) for the company.
- Irene: Pace at UNM has a good example for large, shared labs, and shared collab space. But there seems to be seismic activity, vibration issues mean they need a lot of vibration tables.

What keeps you up at night?

- Steph: How to attract the right tenants and understand/give them what they need. Do not know yet who the tenants might be? Ease of being about to access and use the facility. Sounds like, if the space is too associated with UNM, can deter company from working with them. Make sure there's good set up in place to make sure that the IP belongs to the users and not UNM.
- What is the Size space threshold that the company needs to move into their own space?
- Paul: There are large lab spaces in Abq. So this program wants to fill in the medium size market.
- The Bioscience center is currently full but only has small labs (about 600) and users are looking to move to the next med size. Want to do a case study there to understand their needs and what size they are looking into
- Paul: Access to transportation to get to the lab (train? bus? stations). Needs good parking spaces
- Paul/Steph: Needs space first before they can ask for funding

**PROGRAM REVIEW

- Ryan: For the money that they can get, it's better to scale up, so it's better to start with a large building, but might shell out some space for future.
- Paul: Cost for leasing is important, low as possible is good. \$60/ft cap for leasing is the goal.
- Steph: What is the value of having larger lecture/ instructional space. Having workshops and speakers. Run an internship program and facilitate investors program - Meeting can be up to 24-60 peoples. Multipurpose space.
- Irene: need workshop space (about 30 people) but sometimes need space to host up to 100 people
- > look at outdoor spaces/atrium spaces
- Steph: About 5 offices for the management team BSA of the building.

-Look at having a few more XL large Labs, fewer small labs

-David: Like new building because it can be on the Lomas Corridor, and it can be scaled up or build in phase. After the space the medicine is built, they will build a research building nearby. So the adjacent area will be the best.

-Steph: Looks at another location that is close to the railway stations near Central and Broadway area. However, most of the locations downtown are privately-owned, and it can be very expensive for property cost, unless the city is willing to partner with NMBSA.

-David: Likes the concept of an atrium

-UNM Rainforest and Fuse/Quantum are Maker spaces across from Fatpipe. Can consider the triangle parking lot space nearby. There are always events at Rainforest.

-Look at 25,000SF building vs a 40,000SF with 15,000 shell space

-Send updated Squinty Board to users prior to next Workshop

-FBT will visit example projects to take photos and survey.

-Send dates week of June 1

ATTACHMENTS

N/A

PROJECT	NMBSA WET & DRY LAB AND SHARED OFFICE FACILITY	MEETING NO.	2
PROJECT NO.	00101738	MEETING DATE	6/4/2026
SUBJECT	WORKSHOP 2	MEETING TIME	9:00am – 11:00am
PREPARED BY	Nhu Le, SmithGroup	MEETING LOCATION	Microsoft Teams

NAME	COMPANY
Stephanie Tofighi David Perkins Ryan Cangioli Paul Laur	NM BSA
Brad Gildea Will McCrory Adam Denmark Nhu Le	SmithGroup(SG)
Sanjay Engineer Justin Milburn	FBT Architects

NOTES

- Paul mentioned importance of locked secure door in lab
- Stephanie suggested the idea of direct door between 2 smaller labs, so the same group can have easy access between 2 smaller labs, allowing for better flexibility
- David asked how long the wait list at both incubator spaces is that the team tours
- Santa Fe space has a successful shared lab space. Paul confirms the cost to rent is \$1000 per month
- Sanjay to confirm with Paul on the cost of Santa Fe space for rental
- Ryan and Paul: Don't think the Fat Pipe is large enough. The cost of retrofitting this building might not be worth it, and will not allow for expansion in the future. Prefer to look at the new building or consider another existing space.
- David: New building will have more spaces of lab and office, which the group prefers.

**New sites:

- Confirm UNM is interested in the partnership.
- Both Lomas Corridor and Innovate ABQ sites have masterplan, with retail spaces on the first floor to activate the ground level. It's a multi-year growth model
- David: Is there any zoning restriction for lab to be in the same building of retail/hospitality? For example, if there's a lab with viral research, will there be issue with restaurant on the first floor?
- Adam: Can be isolated
- Paul: Possible, but not ideal situation to have food services within the same building as biosciences research lab building.
- Sanjay: Consider a shared ownership, and BSA will own the upper floors.
- Lomas site G is a lease of UNM on Sandia land. Rainforest site is fully owned by UNM. Research needs to be done to see if there is any limitation for BSA to be on the Lomas site.
- Stephanie/Paul: Might need some lab space on the first floor. Needs to fully isolate the lab space.

-Ryan: Having a partnership with UNM will be a big plus to go into the legislator for funding. There are a lot of new developments planned for the Lomas site. Great opportunity to be in the middle of the growth

-David: After the SOM, there is a large need for research buildings. Wonder where this building will be.

-Ryan/David: Question about F site, which is closer to SOM. This site can be an option for BSA incubator, but it's not part of Sandia land and can create a land issue. F site might be more suitable for the new research building that will come after SOM is completed in 2030

****New BSA base plan on Innovate ABQ space**

-Stephanie: Likes the atrium lobby. Likes the Balcony spaces. Likes larger lab spaces.

-Stephanie: Asks how long for an additional shell floor to be built out and cost.

-Adam: How developed a shell space is day 1 will affect how fast the TI will be. Add this section to the report to explain different models of shell space and cost implications.

-Suggest having a retail tenant at the corner, and the other 3 bays can be given back to the BSA. Can be helpful for lab with large equipment to be on the ground.

-David: What type of retail tenant will be at Innovate ABQ space?

-Stephanie: Mostly for the nearby students, there are a lot of student housing in the area. There is also a hotel nearby.

****New BSA + Future on Lomas site**

- Update retail facing south on Lomas. Mirror the building NS

-Stephanie: Also loves the layout. Valid and correct in the layout. There is no wrong answer, just depends on how we want to use the space

-Paul likes this layout better for efficiency

-Lomas is a great site, but depends on the demolishing of the car dealership and on the build of the new UNM Hotel. Add this as part of the site analysis

ATTACHMENTS

N/A

PROJECT	NMBSA WET & DRY LAB AND SHARED OFFICE FACILITY	MEETING NO.	3
PROJECT NO.	00101738	MEETING DATE	5/13/2026
SUBJECT	FEASIBILITY STUDY FINAL DOCUMENT REVIEW	MEETING TIME	1:00pm – 3:00pm
PREPARED BY	Nhu Le	MEETING LOCATION	FBT Architects Downtown Albuquerque, NM

NAME	COMPANY
Stephanie Tofighi David Perkins Sterling Nichols III Paul Laur (Online) Ryan Cangiolosi	NM BSA
Will McCrory Adam Denmark (Online) Nhu Le	SmithGroup(SG)
Sanjay Engineer Justin Milburn	FBT Architects

NOTES

-Stephanie: Does the book want to be "Draft" vs "Final"? The Final might be better and more valuable.

-Sanjay suggests and Ryan agrees: Can call it a "Living Document" to avoid the word "Draft" but not box in with the "Final" term

-Stephanie: Glad that we can showcase the Santa Fe Incubator and that the needs are needed state-wide. And this new building can be expanded and can work anywhere else state-wide. Show that we look at the state as a whole, and this is something needed and can be translated to other cities - ADD THIS IDEA INTO THE BOOK

-Stephanie: Met with lots of users at Bio Incubator. They all confirmed the need for medium size (1000SF-1500SF) labs for incubators to grow.

-Stephanie wants to visit UC Davis Aggie Square and tour their incubator space

-Ryan: Leasable space on the ground floor is owned by BSA, and they will lease it back to other retails/commercial tenants.

-Dustin: Both sites are state level and are not constrained by the local code, only need to meet state code. Can be up to 75ft tall, not including the penthouse. This means a building up to 4 stories.

-David: Ask about PV and how much power that will produce? Should we look into PV if it can be a selling point in the narrative for the building?

-Justin: For the Lomas site to happen, we need to know if the Hotel will be responsible for demolishing the car dealership? The parking garage?

-Ryan: If we have funding, it likely will be for the next cycle, and the money will get released in July.

-David: The new UNM SOM is also under pressure to put in a parking structure.

-NM BSA TO DECIDE IF THEY ALSO WANT THIS SPACE TO BE SHELL, AND MOVE THE MECH PENTHOUSE UP TO THE ROOF. THEY WANT TO LOOK AT PRICING

-David: Concerned about the cooling and power for the added rack spaces that might be in the lab

-COST: Want to also look at the cost model option of the building at BASE, and BASE + SHELL

-Stephanie: Would like to get high level input on the return on investment. How would the amount of (staff) jobs that are created by the building affect the economy/growth of the bioscience industry?

-Need to get UNM final confirmation that they will give the sites to NM BSA.

-Ryan: It will take time to get final approval for land, especially because there is a new legislator. However, it's more important to get funding now. The land is contingency. The Hotel will for sure happen, which will take care of demolishing the existing Car dealership.

-Paul: Keep the building program more generic in case we need to move to another site. Paul sent information to add to Volume 2

ATTACHMENTS

N/A

CHAPTER 14

COST MODEL BACKUP

Uniformat Cost Model				
Project / Component: NM Bioscience Authority Innovate Site - 3 Stories				
Location: Innovate ABQ				
7/31/2026				
Basis Gross Building Area			39800	SF
Section	Sub	Description	\$ / SF	Totals
			Unit Cost	Amount
Construction Svstems and Assemblies				
Element A	Substructure		\$40.00	\$1,592,000
A10	Foundations		\$40.00	\$1,592,000
		A1010 Standard Foundations	\$28.00	\$1,114,400
		A1020 Special Other Foundations		\$0
		A1030 Slab on Grade	\$16.88	\$672,000
A20	Below Grade & Basement Construction		\$0.00	\$0
		A2010 Basement Excavation		\$0
		A2020 Basement Walls		\$0
Element B	Shells		\$119.60	\$5,025,280
B10	Superstructure		\$44.16	\$1,757,700
		B1010 Floor Construction	\$31.50	\$1,253,700
		B1020 Roof Construction	\$12.66	\$504,000
B20	Exterior Enclosures		\$70.10	\$2,789,980
		B2010 Exterior Walls	\$43.23	\$1,720,554
		B2020 Extenor Windows	\$24.38	\$970,324
		B2030 Exterior Doors	\$2.50	\$99,500
B30	Roofing		\$12.00	\$477,600
		B3010 Roof coverings	\$12.00	\$477,600
Element C	Interiors		\$111.00	\$4,417,800
C10	Interior Construction		\$70.00	\$2,786,000
		C1010 Partitions	\$36.00	\$1,432,800
		C1020 Interior Doors	\$14.00	\$557,200
		C1030 Fittings, Casework & Specialties	\$20.00	\$796,000
C20	Stairs		\$11.00	\$437,800
		C2010 Stair Construction	\$11.00	\$437,800
		C2020 Stair Finishes		
C30	Interior Finishes		\$30.00	\$1,194,000
		C3010 Special Wall Finishes	\$1.50	\$59,700
		C3020 Floor Finishes	\$12.00	\$477,600
		C3030 ceiling Finishes	\$16.50	\$656,700
Element D	Services		\$187.59	\$7,466,082
D10	Conveying		\$8.60	\$342,280
		D1010 Elevators, Lifts & Hoists	\$8.60	\$342,280
		D1020 Special Conveying Systems		\$0
D20	Plumbing		\$43.32	\$1,724,136
		D2010 Plumbing Fixtures	\$20.40	\$811,920
		D2020 Domestic Water Distribution	\$7.80	\$310,440

	D2030 Sanitary Waste	\$9.84	\$391,632
	D2040 Rain Water Drainage	\$2.88	\$114,624
	D2090 Other Plumbing Systems	\$2.40	\$95,520
D30	Heating Ventilation and Air Conditioning (HVAC)	\$76.00	\$3,024,800
	D3010 Energy Supply	\$0.00	\$0
	D3020 Heat Generating Systems	\$0.00	\$0
	D3030 Cooling Generating Systems	\$0.00	\$0
	D3040 HVAC Distribution	\$0.00	\$0
	D3050 Terminal and packaged Units	\$0.00	\$0
	D3060 HVAC Instrumentation and Controls	\$0.00	\$0
	D3070 Testing Adjusting and Balancing	\$0.00	\$0
	D3090 Other Special HVAC Systems and Equipment	\$0.00	\$0
D40	Fire protection	\$7.50	\$298,500
	D4010 Sprinklers	\$7.50	\$298,500
	D4020 Standpipes		\$0
	D4030 Fire Protection Specialties		\$0
	D4090 Other Fire Protection Systems		\$0
<i>Mechanical Systems subtotal</i>		<i>\$126.82</i>	<i>\$5,047,436</i>
D50	Electrical	\$53.00	\$2,109,400
	D5010 Electrical Service and Distribution	\$15.00	\$597,000
	D5020 Lighting and Branch Wiring	\$22.00	\$875,600
	D5030 Communications and Security	\$16.00	\$636,800
	D5090 Other Electrical Systems		\$0
Element E	Equipment and Furnishings	\$30.00	\$1,194,000
E10	Equipment	\$30.00	\$1,194,000
E20	Furnishings		\$0
Element F	Special Construction and Demolition		\$0
F10	Special Construction		\$0
F20	Selective Demolition	\$0.00	\$0
Element G	Building Sitework	\$19.06	\$758,588
G10	Site Preparation	\$2.49	\$99,102
G20	Site Improvement	\$9.60	\$382,080
G30	Site Civil 1 Mechanical Utilities	\$4.73	\$188,254
G40	Site Electrical Utilities	\$2.23	\$88,754
G90	Other Site Construction		\$0
TOTAL DIRECT COST		\$514.74	\$20,486,784
Element Z	General Conditions & Contingency		
Z10	General Requirements, Insurance, Bonds & Fees General Requirements		
	General Requirements	14%	\$2,868,150
	GC Overhead & Profit	5%	\$1,024,339
	Bonds & Insurance	2.50%	\$512,170
	Subtotal	\$110.67	\$4,404,659
TOTAL DIRECT COST + GENERAL CONDITIONS		\$625.41	\$24,891,443

Z20	Contingency / Design				
	Contingency / Design		20%	\$4,097,357	
	Escalation		22%	\$4,507,092	
	Subtotal		\$216.19	\$8,604,449	
TOTAL ESTIMATED CONSTRUCTION COST			\$841.61	\$33,495,892	
SOFT COSTS	Soft Cost (IT, AV, Security, Furniture, Equipment, Owner Contingency, NMGR,				
	Design Fee, and Engineering Fee)		25%	\$8,373,973	
TOTAL ESTIMATED SOFT COST			1052.00665	\$41,869,864.80	
Z30	Taxes	New Mexico Gross Receipts Tax		8%	\$3,192,577
TOTAL ESTIMATED CONSTRUCTION COST			\$1,132.22	\$45,062,441.99	

3 Story full build out @ 39,800SF

This is the minimum amount of space that would be required by the Bioscience Authority to start a facility that can be the next step for start-ups in New Mexico. Based on demand that we have seen during this study, this building would be fully occupied from the onset with excess demand still remaining. A future expansion or additional building would be necessary to provide the space to further the efforts of the state in the incubator space.

Uniformat Cost Model				
Project / Component: NM Bioscience Authority Innovate Site - 4 Stories				
Location: Innovate ABQ				
Date: 7/31/2026				
Basis Gross Building Area			52600 SF	
Section	Sub	Description	\$ / SF	Totals
		Unit Cost	-	Amount
Construction Svstems and Assemblies				
Element A	Substructure		\$40.00	\$2,104,000
A10	Foundations		\$40.00	\$2,104,000
		Al 010 Standard Foundations	\$28.00	\$1,472,800
		Al 020 Special Other Foundations		\$0
		A1030 Slab on Grade	\$12.00	\$631,200
A20	Below Grade & Basement Construction		\$0.00	\$0
		A2010 Basement Excavation		\$0
		A2020 Basement Walls		\$0
Element B	Shells		\$119.60	\$6,321,560
B10	Superstructure		\$41.08	\$2,160,900
		B1010 Floor Construction	\$31.50	\$1,656,900
		B1020 Roof Construction	\$9.58	\$504,000
B20	Exterior Enclosures		\$70.10	\$3,687,260
		B2010 Exterior Walls	\$43.23	\$2,273,898
		B2020 Extenor Windows	\$24.38	\$1,282,388
		B2030 Exterior Doors	\$2.50	\$131,500
B30	Roofing		\$9.00	\$473,400
		B3010 Roof coverings	\$9.00	\$473,400
Element C	Interiors		\$112.05	\$5,893,830
C10	Interior Construction		\$70.00	\$3,682,000
		C1010 Partitions	\$36.00	\$1,893,600
		C1020 Interior Doors	\$14.00	\$736,400
		C1030 Fittings, Casework & Specialties	\$20.00	\$1,052,000
C20	Stairs		\$12.05	\$633,830
		C2010 Stair Construction	\$12.05	\$633,830
		C2020 Stair Finishes		
C30	Interior Finishes		\$30.00	\$1,578,000
		C3010 Special Wall Finishes	\$1.50	\$78,900
		C3020 Floor Finishes	\$12.00	\$631,200
		C3030 ceiling Finishes	\$16.50	\$867,900
Element D	Services		\$187.59	\$9,867,234
D10	Conveying		\$7.77	\$408,702
		D1010 Elevators, Lifts & Hoists	\$7.77	\$408,702
		D1020 Special Conveying Systems		\$0
D20	Plumbing		\$43.32	\$2,278,632
		D2010 Plumbing Fixtures	\$20.40	\$1,073,040
		D2020 Domestic Water Distribution	\$7.80	\$410,280

	D2030 Sanitary Waste	\$9.84	\$517,584
	D2040 Rain Water Drainage	\$2.88	\$151,488
	D2090 Other Plumbing Systems	\$2.40	\$126,240
D30	Heating Ventilation and Air Conditioning (HVAC)	\$76.00	\$3,997,600
	D3010 Energy Supply	\$0.00	\$0
	D3020 Heat Generating Systems	\$0.00	\$0
	D3030 Cooling Generating Systems	\$0.00	\$0
	D3040 HVAC Distribution	\$0.00	\$0
	D3050 Terminal and packaged Units	\$0.00	\$0
	D3060 HVAC Instrumentation and Controls	\$0.00	\$0
	D3070 Testing Adjusting and Balancing	\$0.00	\$0
	D3090 Other Special HVAC Systems and Equipment	\$0.00	\$0
D40	Fire protection	\$7.50	\$394,500
	D4010 Sprinklers	\$7.50	\$394,500
	D4020 Standpipes		\$0
	D4030 Fire Protection Specialties		\$0
	D4090 Other Fire Protection Systems		\$0
	<i>Mechanical Systems subtotal</i>	<i>\$126.82</i>	<i>\$6,670,732</i>
D50	Electrical	\$53.00	\$2,787,800
	D5010 Electrical Service and Distribution	\$15.00	\$789,000
	D5020 Lighting and Branch Wiring	\$22.00	\$1,157,200
	D5030 Communications and Security	\$16.00	\$841,600
	D5090 Other Electrical Systems		\$0
Element E	Equipment and Furnishings	\$30.00	\$1,578,000
E10	Equipment	\$30.00	\$1,578,000
E20	Furnishings		\$0
Element F	Special Construction and Demolition		\$0
F10	Special Construction		\$0
F20	Selective Demolition	\$0.00	\$0
Element G	Building Sitework	\$19.06	\$1,002,556
G10	Site Preparation	\$2.49	\$130,974
G20	Site Improvement	\$9.60	\$504,960
G30	Site Civil 1 Mechanical Utilities	\$4.73	\$248,798
G40	Site Electrical Utilities	\$2.23	\$117,298
G90	Other Site Construction		\$0
TOTAL DIRECT COST		\$508.88	\$26,767,180
Element Z	General Conditions & Contingency		
Z10	General Requirements, Insurance, Bonds & Fees General Requirements		
	General Requirements	14%	\$3,747,405
	GC Overhead & Profit	5%	\$1,338,359
	Bonds & Insurance	2.50%	\$669,180
	Subtotal	\$109.41	\$5,754,944
TOTAL DIRECT COST + GENERAL CONDITIONS		\$618.29	\$32,522,124

Z20	Contingency / Design		
	Soft Cost (IT, AV, Security, Furniture, Equipment, Owner Contingency)	20%	\$5,353,436
	Contingency / Design	20%	\$5,353,436
	Escalation	22%	\$5,888,780
	Subtotal	\$315.51	\$16,595,651.60
TOTAL ESTIMATED COST		\$933.80	\$49,117,775
Z30	Taxes	New Mexico Gross Receipts Tax	
		7.63%	\$3,745,230
TOTAL ESTIMATED COST INCLUDING NMGR		\$1,005.00	\$52,863,005.67

4 Story full build out @ 52,600SF

Based on the development of the 3-Story building on this site with the duplication of the third floor to create a 4 story building. This building size and the number of labs that it can facilitate is much more in line with the demands for incubator space requirements of the BSA. This would allow for the use of the 4th floor from the onset of construction completion.

Uniformalt Cost Model				
Project / Component: NM Bioscience Authority Innovate Site - 4 Stories, 4th Floor Shell				
Location: Innovate ABQ		12800 Shell		
7/31/2026		39800 Full Build Out		
Basis Gross Building Area		52600 Total SF		
Section	Sub	Description	\$ / SF	Totals
			Unit Cost	Amount
Construction Svstems and Assemblies				
Element A	Substructure		\$40.00	\$2,104,000
A10	Foundations		\$40.00	\$2,104,000
		Al 010 Standard Foundations	\$28.00	\$1,472,800
		Al 020 Special Other Foundations		\$0
		A1030 Slab on Grade	\$12.00	\$631,200
A20	Below Grade & Basement Construction		\$0.00	\$0
		A2010 Basement Excavation		\$0
		A2020 Basement Walls		\$0
Element B	Shells		\$119.60	\$6,321,560
B10	Superstructure		\$41	\$2,160,900
		B1010 Floor Construction	\$31.50	\$1,656,900
		B1020 Roof Construction	\$9.58	\$504,000
B20	Exterior Enclosures		\$70.10	\$3,687,260
		B2010 Exterior Walls	\$43.23	\$2,273,898
		B2020 Extenor Windows	\$24.38	\$1,282,388
		B2030 Exterior Doors	\$2.50	\$131,500
B30	Roofing		\$9.00	\$473,400
		B3010 Roof coverings	\$9.00	\$473,400
Element C	Interiors		\$112.05	\$4,459,590
C10	Interior Construction		\$70.00	\$2,786,000
		C1010 Partitions	\$36.00	\$1,432,800
		C1020 Interior Doors	\$14.00	\$557,200
		C1030 Fittings, Casework & Specialties	\$20.00	\$796,000
C20	Stairs		\$12.05	\$479,590
		C2010 Stair Construction	\$12.05	\$479,590
		C2020 Stair Finishes		
C30	Interior Finishes		\$30.00	\$1,194,000
		C3010 Special Wall Finishes	\$1.50	\$59,700
		C3020 Floor Finishes	\$12.00	\$477,600
		C3030 ceiling Finishes	\$16.50	\$656,700
Element D	Services		\$187.59	\$8,827,874
D10	Conveying		\$7.77	\$408,702
		D1010 Elevators, Lifts & Hoists	\$7.77	\$408,702
		D1020 Special Conveying Systems		\$0
D20	Plumbing		\$43.32	\$1,917,672
		D2010 Plumbing Fixtures	\$20.40	\$811,920
		D2020 Domestic Water Distribution	\$7.80	\$310,440
		D2030 Sanitary Waste	\$9.84	\$517,584

	D2040	Rain Water Drainage	\$2.88	\$151,488
	D2090	Other Plumbing Systems	\$2.40	\$126,240
D30		Heating Ventilation and Air Conditioning (HVAC)	\$76.00	\$3,997,600
	D3010	Energy Supply	\$0.00	\$0
	D3020	Heat Generating Systems	\$0.00	\$0
	D3030	Cooling Generating Systems	\$0.00	\$0
	D3040	HVAC Distribution	\$0.00	\$0
	D3050	Terminal and packaged Units	\$0.00	\$0
	D3060	HVAC Instrumentation and Controls	\$0.00	\$0
	D3070	Testing Adjusting and Balancing	\$0.00	\$0
	D3090	Other Special HVAC Systems and Equipment	\$0.00	\$0
D40		Fire protection	\$7.50	\$394,500
	D4010	Sprinklers	\$7.50	\$394,500
	D4020	Standpipes		\$0
	D4030	Fire Protection Specialties		\$0
	D4090	Other Fire Protection Systems		\$0
<i>Mechanical Systems subtotal</i>			\$126.82	\$6,309,772
D50		Electrical	\$53.00	\$2,109,400
	D5010	Electrical Service and Distribution	\$15.00	\$789,000
	D5020	Lighting and Branch Wiring	\$22.00	\$875,600
	D5030	Communications and Security	\$16.00	\$636,800
	D5090	Other Electrical Systems		\$0
Element E		Equipment and Furnishings	\$30.00	\$1,194,000
E10		Equipment	\$30.00	\$1,194,000
E20		Furnishings		\$0
Element F		Special Construction and Demolition		\$0
F10		Special Construction		\$0
F20		Selective Demolition	\$0.00	\$0
Element G		Building Sitework	\$19.06	\$1,002,556
G10		Site Preparation	\$2.49	\$130,974
G20		Site Improvement	\$9.60	\$504,960
G30		Site Civil 1 Mechanical Utilities	\$4.73	\$248,798
G40		Site Electrical Utilities	\$2.23	\$117,298
G90		Other Site Construction		\$0
TOTAL DIRECT COST			\$454.55	\$23,909,580
Element Z		General Conditions & Contingency		
Z10		General Requirements, Insurance, Bonds & Fees General Requirements		
		General Requirements	14%	\$3,347,341
		GC Overhead & Profit	5%	\$1,195,479
		Bonds & Insurance	2.50%	\$597,740
		Subtotal	\$97.73	\$5,140,560
Subtotal - Direct Cost + General Conditions			\$552.28	\$29,050,140
Z20		Contingency / Design		
		Soft Cost (IT, AV, Security, Furniture, Equipment, Owner Contingency)	20%	\$4,781,916

	Contingency / Design	20%	\$4,781,916
	Escalation	22%	\$5,260,108
	Subtotal	\$281.82	\$14,823,940
TOTAL ESTIMATED COST		\$834.11	\$43,874,079
Z30	Taxes	New Mexico Gross Receipts Tax	
		7.63%	\$3,345,399
TOTAL ESTIMATED COST INCLUDING NMGRT		\$897.71	\$47,219,478

4 Story with 4th Floor Shell Space @ 52,600SF

Based on the development of the 3-Story building on this site with the duplication of the third floor to create a 4 story building. This building size is much more in line with the demand for incubator space but does not build out all of the spaces in the initial construction. The 4th floor would be built out in the future by either the BSA or Tenants. This cost model demonstrates the lowest cost per square foot model.

Uniformat Cost Model				
Project / Component: NM Bioscience Authority Lomas Site - 3 Stories				
Location: Lomas and University				
Date: 7/31/2026				
Basis Gross Building Area			65100 Total SF	
Section	Sub	Description	\$ / SF	Totals
			Unit Cost	Amount
Construction Svstems and Assemblies				
Element A	Substructure		\$40.00	\$2,604,000
A10	Foundations		\$40.00	\$2,604,000
		Al 010 Standard Foundations	\$28.00	\$1,822,800
		Al 020 Special Other Foundations		\$0
		A1030 Slab on Grade	\$12.00	\$781,200
A20	Below Grade & Basement Construction		\$0.00	\$0
		A2010 Basement Excavation		\$0
		A2020 Basement Walls		\$0
Element B	Shells		\$121.78	\$7,732,578
B10	Superstructure		\$40	\$2,604,000
		B1010 Floor Construction	\$28.00	\$1,822,800
		B1020 Roof Construction	\$12.00	\$781,200
B20	Exterior Enclosures		\$69.78	\$4,542,678
		B2010 Exterior Walls	\$43.23	\$2,814,273
		B2020 Extenor Windows	\$24.38	\$1,587,138
		B2030 Exterior Doors	\$2.50	\$162,750
B30	Roofing		\$9.00	\$585,900
		B3010 Roof coverings	\$9.00	\$585,900
Element C	Interiors		\$107.00	\$6,965,700
C10	Interior Construction		\$70.00	\$4,557,000
		C1010 Partitions	\$36.00	\$2,343,600
		C1020 Interior Doors	\$14.00	\$911,400
		C1030 Fittings, Casework & Specialties	\$20.00	\$1,302,000
C20	Stairs		\$7.00	\$455,700
		C2010 Stair Construction	\$7.00	\$455,700
		C2020 Stair Finishes		
C30	Interior Finishes		\$30.00	\$1,953,000
		C3010 Special Wall Finishes	\$1.50	\$97,650
		C3020 Floor Finishes	\$12.00	\$781,200
		C3030 ceiling Finishes	\$16.50	\$1,074,150
Element D	Services		\$187.59	\$12,065,634
D10	Conveying		\$5.52	\$359,352
		D1010 Elevators, Lifts & Hoists	\$5.52	\$359,352
		D1020 Special Conveying Systems		\$0
D20	Plumbing		\$43.32	\$2,820,132
		D2010 Plumbing Fixtures	\$20.40	\$1,328,040
		D2020 Domestic Water Distribution	\$7.80	\$507,780

	D2030 Sanitary Waste	\$9.84	\$640,584
	D2040 Rain Water Drainage	\$2.88	\$187,488
	D2090 Other Plumbing Systems	\$2.40	\$156,240
D30	Heating Ventilation and Air Conditioning (HVAC)	\$76.00	\$4,947,600
	D3010 Energy Supply	\$0.00	\$0
	D3020 Heat Generating Systems	\$0.00	\$0
	D3030 Cooling Generating Systems	\$0.00	\$0
	D3040 HVAC Distribution	\$0.00	\$0
	D3050 Terminal and packaged Units	\$0.00	\$0
	D3060 HVAC Instrumentation and Controls	\$0.00	\$0
	D3070 Testing Adjusting and Balancing	\$0.00	\$0
	D3090 Other Special HVAC Systems and Equipment	\$0.00	\$0
D40	Fire protection	\$7.50	\$488,250
	D4010 Sprinklers	\$7.50	\$488,250
	D4020 Standpipes		\$0
	D4030 Fire Protection Specialties		\$0
	D4090 Other Fire Protection Systems		\$0
<i>Mechanical Systems subtotal</i>		\$126.82	\$8,255,982
D50	Electrical	\$53.00	\$3,450,300
	D5010 Electrical Service and Distribution	\$15.00	\$976,500
	D5020 Lighting and Branch Wiring	\$22.00	\$1,432,200
	D5030 Communications and Security	\$16.00	\$1,041,600
	D5090 Other Electrical Systems		\$0
Element E	Equipment and Furnishings	\$30.00	\$1,953,000
E10	Equipment	\$30.00	\$1,953,000
E20	Furnishings		\$0
Element F	Special Construction and Demolition		\$0
F10	Special Construction		\$0
F20	Selective Demolition	\$0.00	\$0
Element G	Building Sitework	\$14.39	\$937,000
G10	Site Preparation	\$2.14	\$139,400
G20	Site Improvement	\$8.26	\$537,600
G30	Site Civil 1 Mechanical Utilities	\$2.07	\$135,000
G40	Site Electrical Utilities	\$1.92	\$125,000
G90	Other Site Construction		\$0
TOTAL DIRECT COST		\$495.51	\$32,257,912
Element Z	General Conditions & Contingency		
Z10	General Requirements, Insurance, Bonds & Fees General Requirements		
	General Requirements	14%	\$4,516,108
	GC Overhead & Profit	5%	\$1,612,896
	Bonds & Insurance	2.50%	\$806,448
	Subtotal	\$106.54	\$6,935,451
Subtotal - Direct Cost + General Conditions		\$602.05	\$39,193,363

Z20	Contingency / Design		
	Soft Cost (IT, AV, Security, Furniture, Equipment, Owner Contingency)	20%	\$6,451,582
	Contingency / Design	20%	\$6,451,582
	Escalation	22%	\$7,096,741
	Subtotal	\$307.22	\$19,999,905
TOTAL ESTIMATED COST		\$909.27	\$59,193,269
Z30	Taxes	New Mexico Gross Receipts Tax	
		7.63%	\$4,513,487
TOTAL ESTIMATED COST INCLUDING NMGR		\$978.60	\$63,706,755

3 Story full build out @ 65,100SF

This amount of space that would be required by the Bioscience Authority to start a facility that can be the next step for start-ups in New Mexico. Based on demand that we have seen during this study, this building would be fully occupied from the onset and alleviate a large amount of the demand for the size of labs being provided by this Facility.

Uniformat Cost Model				
Project / Component: NM Bioscience Authority Lomas Site - 3 Stories, Shell Space				
Location: Lomas and University			16500 Shell	
Date: 7/31/2026			48600 Full Build Out	
Basis Gross Building Area			65100 Total SF	
Section	Sub	Description	\$ / SF	Totals
			Unit Cost	Amount
Construction Svstems and Assemblies				
Element A	Substructure		\$40.00	\$2,604,000
A10	Foundations		\$40.00	\$2,604,000
		Al 010 Standard Foundations	\$28.00	\$1,822,800
		Al 020 Special Other Foundations		\$0
		A1030 Slab on Grade	\$12.00	\$781,200
A20	Below Grade & Basement Construction		\$0.00	\$0
		A2010 Basement Excavation		\$0
		A2020 Basement Walls		\$0
Element B	Shells		\$108.96	\$7,093,410
B10	Superstructure		\$30	\$1,944,000
		B1010 Floor Construction	\$28.00	\$1,360,800
		B1020 Roof Construction	\$12.00	\$583,200
B20	Exterior Enclosures		\$70.10	\$4,563,510
		B2010 Exterior Walls	\$43.23	\$2,814,273
		B2020 Extenor Windows	\$24.38	\$1,587,138
		B2030 Exterior Doors	\$2.50	\$121,500
B30	Roofing		\$9.00	\$585,900
		B3010 Roof coverings	\$9.00	\$585,900
Element C	Interiors		\$107.00	\$5,200,200
C10	Interior Construction		\$70.00	\$3,402,000
		C1010 Partitions	\$36.00	\$1,749,600
		C1020 Interior Doors	\$14.00	\$680,400
		C1030 Fittings, Casework & Specialties	\$20.00	\$972,000
C20	Stairs		\$7.00	\$340,200
		C2010 Stair Construction	\$7.00	\$340,200
		C2020 Stair Finishes		
C30	Interior Finishes		\$30.00	\$1,458,000
		C3010 Special Wall Finishes	\$1.50	\$72,900
		C3020 Floor Finishes	\$12.00	\$583,200
		C3030 ceiling Finishes	\$16.50	\$801,900
Element D	Services		\$187.59	\$9,472,122
D10	Conveying		\$7.40	\$359,640
		D1010 Elevators, Lifts & Hoists	\$7.40	\$359,640
		D1020 Special Conveying Systems		\$0
D20	Plumbing		\$43.32	\$2,354,832
		D2010 Plumbing Fixtures	\$20.40	\$991,440
		D2020 Domestic Water Distribution	\$7.80	\$379,080

	D2030 Sanitary Waste	\$9.84	\$640,584
	D2040 Rain Water Drainage	\$2.88	\$187,488
	D2090 Other Plumbing Systems	\$2.40	\$156,240
D30	Heating Ventilation and Air Conditioning (HVAC)	\$76.00	\$3,693,600
	D3010 Energy Supply	\$0.00	\$0
	D3020 Heat Generating Systems	\$0.00	\$0
	D3030 Cooling Generating Systems	\$0.00	\$0
	D3040 HVAC Distribution	\$0.00	\$0
	D3050 Terminal and packaged Units	\$0.00	\$0
	D3060 HVAC Instrumentation and Controls	\$0.00	\$0
	D3070 Testing Adjusting and Balancing	\$0.00	\$0
	D3090 Other Special HVAC Systems and Equipment	\$0.00	\$0
D40	Fire protection	\$7.50	\$488,250
	D4010 Sprinklers	\$7.50	\$488,250
	D4020 Standpipes		\$0
	D4030 Fire Protection Specialties		\$0
	D4090 Other Fire Protection Systems		\$0
	<i>Mechanical Systems subtotal</i>	<i>\$126.82</i>	<i>\$6,536,682</i>
D50	Electrical	\$53.00	\$2,575,800
	D5010 Electrical Service and Distribution	\$15.00	\$976,500
	D5020 Lighting and Branch Wiring	\$22.00	\$1,069,200
	D5030 Communications and Security	\$16.00	\$777,600
	D5090 Other Electrical Systems		\$0
Element E	Equipment and Furnishings	\$30.00	\$1,458,000
E10	Equipment	\$30.00	\$1,458,000
E20	Furnishings		\$0
Element F	Special Construction and Demolition		\$0
F10	Special Construction		\$0
F20	Selective Demolition	\$0.00	\$0
Element G	Building Sitework	\$14.39	\$937,000
G10	Site Preparation	\$2.14	\$139,400
G20	Site Improvement	\$8.26	\$537,600
G30	Site Civil 1 Mechanical Utilities	\$2.07	\$135,000
G40	Site Electrical Utilities	\$1.92	\$125,000
G90	Other Site Construction		\$0
TOTAL DIRECT COST		\$411.13	\$26,764,732
Element Z	General Conditions & Contingency		
Z10	General Requirements, Insurance, Bonds & Fees General Requirements		
	General Requirements	14%	\$3,747,062
	GC Overhead & Profit	5%	\$1,338,237
	Bonds & Insurance	2.50%	\$669,118
	Subtotal	\$88.39	\$5,754,417
Subtotal - Direct Cost + General Conditions		\$499.53	\$32,519,149

Z20	Contingency / Design		
	Soft Cost (IT, AV, Security, Furniture, Equipment, Owner Contingency)	20%	\$5,352,946
	Contingency / Design	20%	\$5,352,946
	Escalation	22%	\$5,888,241
	Subtotal	\$254.90	\$16,594,134
TOTAL ESTIMATED COST		\$754.43	\$49,113,283
Z30	Taxes	New Mexico Gross Receipts Tax	
		7.63%	\$3,744,888
TOTAL ESTIMATED COST INCLUDING NMGR		\$811.95	\$52,858,171

3 Story full with Shell @ 65,100SF

This amount of space that would be above the required space needed by the Bioscience Authority to start a facility that can be the next step for start-ups in New Mexico. Based on demand that we have seen during this study, this building would be fully occupied from the onset and alleviate a large amount of the demand for the size of labs being provided by this Facility. This building would also be able to accommodate the future influx in incubator needs through the future completion of the shell space. The cost per square foot on this building is the second lowest evaluated.

Cost Model of 3 Story @	40,000SF
Building Management Expenditure	\$100,000
Operation Cost @ \$12/SF	\$480,000
Total Operational Cost	\$580,000
NMBSA Tenant Rent @ \$20/SF	\$350,000
Tenant Rent @ \$75/SF	\$400,000
Total Revenue	\$750,000
Difference	\$170,000

Cost Model of 4 Story @	52,000SF
Building Management Expenditure	\$150,000
Operation Cost @ \$12/SF	\$624,000
Total Operational Cost	\$774,000
NMBSA Tenant Rent @ \$20/SF	\$393,750
Tenant Rent @ \$75/SF	\$400,000
Total Revenue	\$793,750
Difference	\$19,750

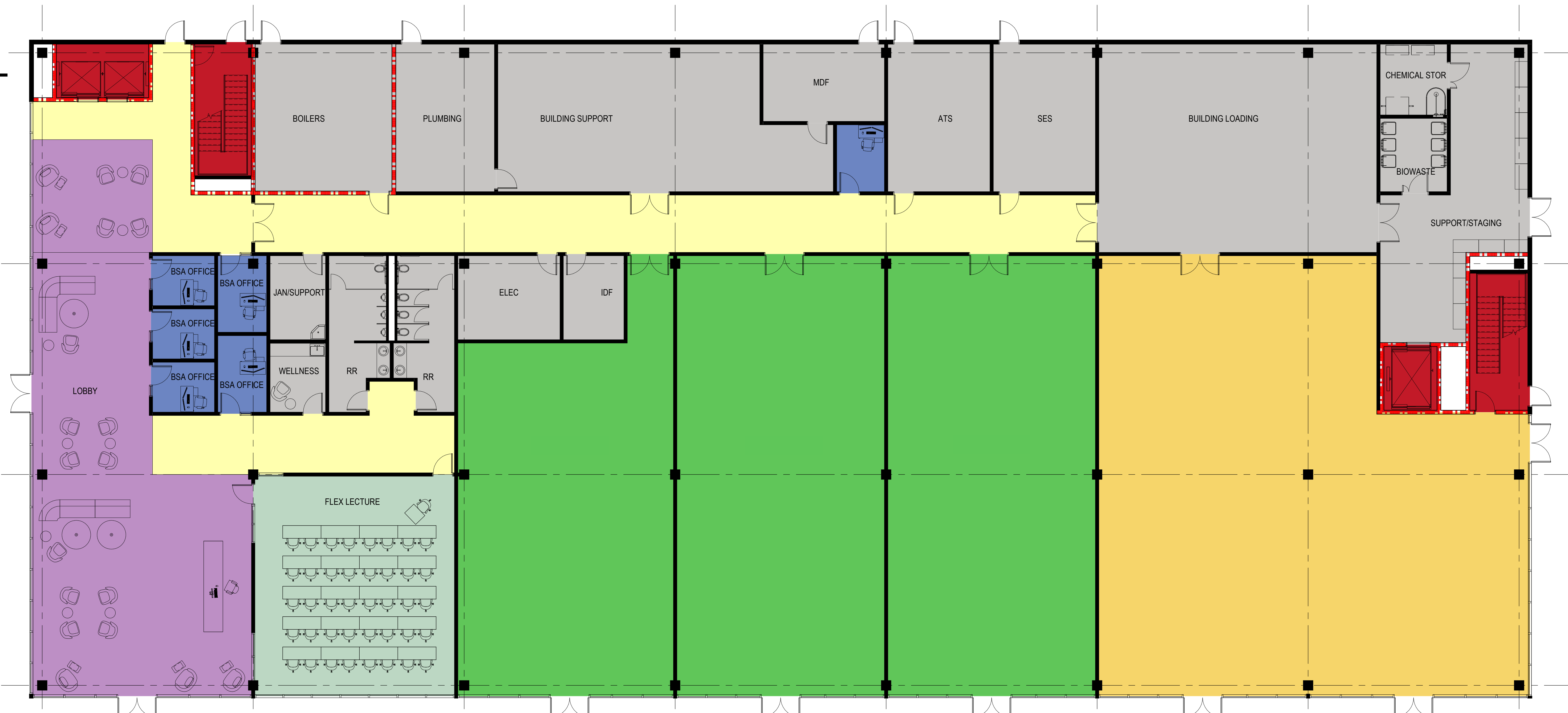
Cost Model of 3 Story @	67,000SF
Building Management Expenditure	\$200,000
Operation Cost @ \$12/SF	\$804,000
Total Operational Cost	\$1,004,000
NMBSA Tenant Rent @ \$20/SF	\$450,000
Tenant Rent @ \$75/SF	\$720,000
Total Revenue	\$1,170,000
Difference	\$166,000

CHAPTER 15

CONCEPT DIAGRAMS AND GRAPHICS



GROUND LEVEL



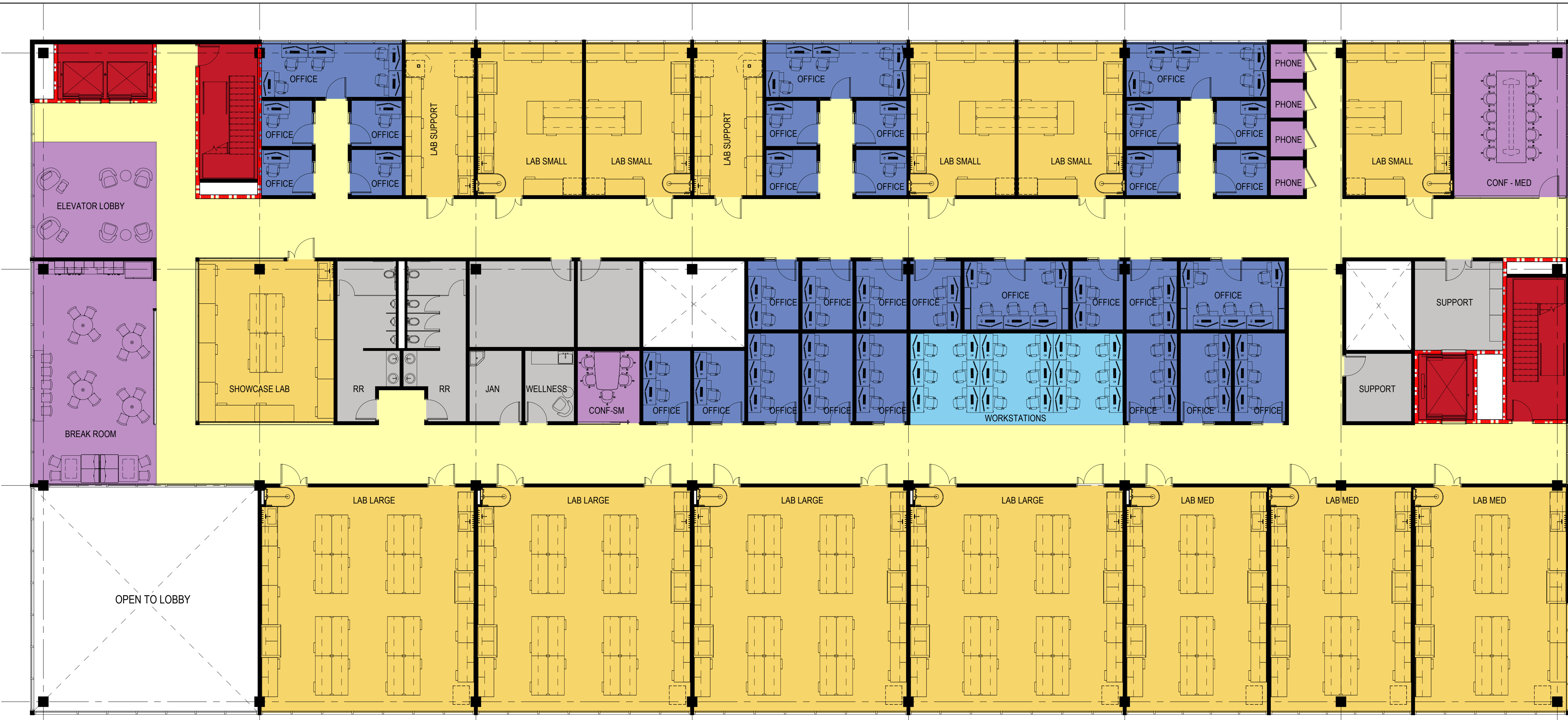
40,000GSF LABS & OFFICES

BIOSCIENCES AUTHORITY INCUBATOR

LEVEL 3



LEVEL 2



40,000GSF LABS & OFFICES

BIOSCIENCES AUTHORITY INCUBATOR

1/8" = 1'-0"

SMITHGROUP

LEVEL 1



25,000GSF LABS & OFFICES

BIOSCIENCES AUTHORITY INCUBATOR

1/8" = 1'-0"

SMITHGROUP

LEVEL 2



LEVEL 3



25,000GSF LABS & OFFICES

BIOSCIENCES AUTHORITY INCUBATOR

 1/8" = 1'-0"

SMITHGROUP





CHAPTER 16

ECONOMIC IMPACT DATA

Making
the
impossible

possible.

The U.S. Bioscience Industry:

A Powerful Engine for State Economies



Where
breakthroughs
begin





TABLE OF CONTENTS

Introduction	1
2026 State and Regional Policy Guide for Growth	3
U.S. Bioscience Industry Economic Impacts 2023-2024	6
Commercial Applications for Bioscience Job Creation and Product Development	7
Supportive 2025 State Tax Incentives for Industry Development	9
Recent State Tax Credits and Grants to Support Bioscience Growth	11
Biomanufacturing State Incentives for Continued Growth	14
U.S. Bioscience Workforce Development Initiatives	16
Glossary of Bioscience Terms	18
Economic Development Guide Conclusion	20

INTRODUCTION

The U.S. bioscience industry remains a cornerstone of national strength – driving innovation, creating high-value jobs, and powering growth across every region of the country. Spanning fields from pharmaceuticals and medical devices to agricultural biotechnology and research and testing, this dynamic sector not only delivers life-saving innovations but also fuels long-term economic vitality and industrial diversification.

That vitality is realized at the state and regional level, where the biotech industry has become a strategic focus for economic development. Through targeted policy measures – such as research and development tax credits, biomanufacturing investment incentives, and workforce-training programs – states are laying the foundation for sustained growth and global competitiveness.

The opportunity ahead is substantial. According to Investopedia, the bioscience product market is projected to grow from \$1.7 trillion in 2025 to over \$5 trillion by 2034, an annual growth rate of 12.5%. This growth trajectory is prompting state and local economic development leaders to act decisively – adopting policies that attract investment, strengthen supply chains, and expand high-wage employment.

To support these efforts, this eighth biennial national report highlights the dynamic ecosystem of strategic policy, programs, and partnerships that continue to translate cutting-edge science into testing, commercialization and manufacturing for markets around the world.

Even during the economic downturn of 2020–2022, the bioscience industry actually grew and its advancements continued into 2023, providing ample awareness to state and local stakeholders that bioscience companies are an important component of gathering people, developing ideas, and bringing prosperity to states, cities, and municipalities with the industry in their community.

In its 7th edition, this report reviews the latest state and regional economic development measures that support the bioscience industry, or life science industry. The analysis is developed by the Biotechnology Innovation Organization (BIO), in partnership with the Council of State Bioscience Associations (CSBA), to highlight noteworthy public policy strategies and programs to assist policy leaders and their industry partners in identifying new measures that enhance the future prospects of the bioscience industry in their states and regions.

Utilizing an analysis of current state public policy efforts to support the the bioscience industry, the authors have identified three consensus strategies that states have created to retain the industry and grow the size and diversity of all of its sectors across the states:

Fueling Growth Through Strategic Incentives

States increasingly recognize the powerful return on investment that comes from fostering a thriving bioscience ecosystem. Central to that success is the implementation of targeted financial incentives – especially research and development tax credits, investment incentives for facilities and equipment, and job-creation programs.

These measures reduce the financial barriers for startups and growth-stage firms navigating the long, capital-intensive research cycle. In doing so, they help attract new companies, expand existing ones, and strengthen a state's broader economic base.

Cultivating a Skilled Workforce

The success of the bioscience industry ultimately depends on the people behind it. Recognizing this, many states have implemented comprehensive workforce development programs tailored to the sector's specialized needs. These initiatives – often partnerships among government, higher education, and private industry – create a continuous talent pipeline, from K-12 STEM education and community-college certificates to advanced degrees and professional training.

By aligning educational curricula with industry demands, states ensure graduates are equipped with the technical and analytical skills required for biomanufacturing, laboratory research, and clinical development. This proactive approach not only meets the immediate needs of bioscience companies, but also opens sustainable career pathways for residents.

Venture Capital: Venture capital investment in biopharma saw a rebound in 2024, reaching \$26 billion, up from \$23.3 billion in 2023.

The Power of Collaboration: Public-Private Partnerships

The complex and capital-intensive nature of bioscience innovation makes collaboration essential. The most successful state and regional ecosystems are built on strong public-private partnerships that unite universities, research institutions, government agencies, and private companies around shared objectives. These supportive alliances can

take many forms:

- **University-Industry Collaborations:** Universities are often the epicenters of foundational research. Partnerships with private companies help to translate that research into commercially viable products and therapies. These collaborations include joint research projects, technology licensing agreements, and the creation of incubators and accelerators that give startups access to space, resources, and mentorship to help them grow.
- **Government-Industry Partnerships:** State and federal agencies, such as the National Institutes of Health (NIH), routinely partner with bioscience companies to advance research in critical areas of public health. These collaborations provide funding, regulatory guidance, and access to valuable research resources.
- **Inter-Company Alliances:** Partnerships between established pharmaceutical companies and emerging biotech firms are also common and vital. By combining scale with agility, these partnerships foster the exchange of expertise and resources, reduce risk, and accelerate the development of new therapies and technologies.

Through these interconnected strategies – targeted incentives, workforce development, and robust collaboration – states are cultivating an environment where the bioscience ecosystem thrives and provides substantial economic and societal benefits. In doing so, they are not only strengthening local economies, but also reinforcing America's leadership in bioscience innovation for decades to come.

2026 State and Regional POLICY GUIDE FOR GROWTH

To foster a thriving bioscience industry in 2026 and beyond, state and regional policymakers continue to refine their efforts to support industry growth,

and have come to realize that the one-size-fits-all approach is not as effective as a strategy that creates a supportive ecosystem that understands the phase of development from initial discovery stages to full-scale commercialization.

Phase 1: Discovery & Seed Stage

This is the birth of a bioscience company, often starting within a university lab or as a small spin-out. The primary focus is on foundational research, validating a scientific concept, and securing intellectual property.

• Company Profile:

- **Focus:** Proof-of-concept research, patent filing.
- **Team:** 1-5 people (researchers, founders).
- **Funding:** Primarily from non-dilutive sources like government grants (NIH, NSF) and small seed investments.
- **Key Challenge:** High scientific risk and lack of access to capital and expensive, specialized lab equipment ("wet labs").

• Matching Policies:

- **Grant Matching Programs:** State funds that match federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants, effectively doubling a company's initial funding.

- **University Tech Transfer Support:** Robust funding for university Technology Transfer Offices (TTOs) to streamline patenting, licensing, and spin-out creation.
- **Subsidized Incubators:** State-supported incubators and accelerators that provide affordable, shared wet lab space, mentorship, and critical business development training.
- **Proof-of-Concept Funds:** Small, state-managed seed funds that provide the initial high-risk capital needed to bridge the gap from research grant to private investment.

Public Company Revenue:
In 2024, the revenue for public bioscience companies in the U.S. grew 6.8% year-over-year to \$205 billion.

Phase 2: Early Stage & Venture Capital

Once a concept is proven, the company enters an early stage where it must conduct preclinical studies, develop prototypes, and navigate regulatory pathways. This phase requires significant private investment to build the team and generate critical data.

• Company Profile:

- **Focus:** Preclinical/early clinical trials, product development, building a management team.
- **Team:** 5-25 employees.
- **Funding:** Angel investors, Series A/B venture capital.
- **Key Challenge:** Attracting sufficient venture capital, a process often called crossing the "Valley of Death" where many promising technologies fail due to lack of funding.

• Matching Policies:

- **State Venture Capital Programs:** A "fund-of-funds" model where the state invests in private VC funds with the requirement that they invest a portion of that capital into local bioscience companies. This attracts professional investment management to the region.
- **Angel Investor Tax Credits:** Provides a state tax credit to individuals who invest in qualified local startups, incentivizing local high-net-worth individuals to become angel investors.

- **R&D Tax Credits:** A refundable state tax credit for research and development expenditures, which provides crucial non-dilutive cash flow to pre-revenue companies.

• Workforce Development Grants:

Funding for community colleges and universities to create certificate programs for in-demand roles like lab technicians and clinical research associates.

Phase 3: Growth & Expansion Stage

In this phase, the company has a viable product candidate and is focused on scaling its operations. This includes late-stage clinical trials, building out manufacturing capabilities, and preparing for commercial launch.

• Company Profile:

- **Focus:** Scaling manufacturing, commercialization, market entry.
- **Team:** 25-100+ employees.
- **Funding:** Later-stage venture capital (Series C+), strategic partnerships, early revenue.
- **Key Challenge:** Securing large-scale manufacturing space, navigating complex supply chains, and hiring a skilled workforce at scale.

• Matching Policies:

- **Economic Development Incentives:** Performance-based grants and tax abatements for building new headquarters, research facilities, or biomanufacturing plants.
- **Infrastructure Investment:** Public investment in developing specialized "bio-parks" with the necessary zoning, utilities (high-capacity power, water), and transportation links.





Massive U.S. Economic Footprint:
In the U.S. alone, the bioscience industry's total economic impact (as measured by overall output) exceeded **\$3.2 trillion in 2023**, supporting a large number of direct and indirect jobs.

- **Supply Chain Initiatives:** Programs that map local supply chain assets and connect growth-stage companies with regional suppliers for reagents, components, and contract manufacturing services.
- **Training and Recruitment Programs:** State-level marketing campaigns and incentives aimed at attracting experienced senior-level talent from established biotech hubs.

Phase 4: Maturity & Commercialization

Mature companies are established players with products on the market. Their focus shifts to expanding market share, M&A activity, and fostering the next generation of innovation to ensure long-term growth.

- **Company Profile:**

- **Focus:** Market expansion, profitability, pipeline renewal.
- **Team:** Large, established workforce.
- **Funding:** Public markets (IPO), corporate profits, debt financing.
- **Key Challenge:** Retaining top-tier executive talent and fostering a culture of continued innovation.

- **Matching Policies:**

- Site and Infrastructure Grant Funds
- Renewable Energy Tax Credits and Utility Rebates
- Manufacturing Equipment Sales and Use Tax Discounts, Exemptions and Refunds

U.S. Bioscience Industry **ECONOMIC IMPACTS** **2023-2024**

The U.S. bioscience industry has maintained its long-term growth trend and continues to generate high-quality, high-wage jobs that drive significant and growing economic impacts for the nation.

Highlights from the latest TEconomy national industry analyses include:

In 2023-2024, bioscience companies employed 2.3 million Americans across nearly 150,000 individual business establishments with a footprint in every U.S. state.

The industry has maintained its long-term growth trend with employment increasing by nearly 15 percent since 2019, well outpacing the nation's overall private sector job growth during this period that includes the global pandemic and subsequent economic recovery.

- The bioscience industry continues to employ a highly-skilled and STEM-intensive workforce that is reflected in its high-wage jobs. In 2023 the average U.S. bioscience worker earned more than \$132,000 per year, which is \$60,000 or 83 percent more than the nation's private sector average.
- The industry's skilled workforce continues to drive innovation and create value which is reflected through the sector's economic impacts.
- The total economic impact of the bioscience industry on the U.S. economy, as measured by overall output, totaled more than \$3.2 trillion in 2023.
- The industry generated and supported \$1.68 trillion in value added in 2023, accounting for 6.8 percent of U.S. private sector GDP.
- The industry's nearly 2.3 million employees and their associated economic output support nearly 8.0 million additional jobs throughout the economy through indirect and induced effects.
- Bioscience industry impacts are growing, compared with those measured in 2021, the industry's total economic impacts have increased by \$350 million, or 12 percent over the 2-year period.
- In addition, the bioscience industry generated in 2023-2024:
 - Direct Impact 2.3M Jobs
 - Labor Income \$881.9 Billion
 - Indirect Bioscience Industry Employment 10.3M Jobs
 - Total 2024 Economic Output \$3.2 Trillion
- Additional Tax Revenue Impacts:
 - State and Local Tax Revenue: \$50.3 Billion
 - Federal Tax Revenue: \$216 Billion

**Source: TEconomy Partners data and analysis using IMPLAN Input-Output Models*

Commercial Applications for Bioscience

JOB CREATION AND PRODUCT DEVELOPMENT

The bioscience industry not only generates significant economic value, it provides a variety of job opportunities

across a number of commercial applications that illustrate the many ways a person can successfully participate in this growing technology sector.

1. Medical Care: Bioscience tools and techniques open new research avenues for discovering how healthy bodies work and what goes wrong when problems arise. In human health care, biotechnology products include quicker and more accurate diagnostics tests and therapies with fewer side effects because they are based on the body's self-healing capabilities.

- **Medicines** – Bioscience medicines assist the body in fighting infections or carrying out specific functions and uses other living organisms – plant and animal cells, viruses and yeasts – to assist in the large-scale production of medicines for human use. Some new medicines approved by the FDA include treatments for anemia, cystic fibrosis, growth efficiency, hemophilia, leukemia, hepatitis, transplant rejection and many forms of cancer.

- **Vaccines** – A vaccine consists of the antigen, not the actual microbe. By isolating antigens and producing them in the laboratory, it is possible to make new vaccines that cannot transmit the virus itself.

- **Diagnostics** – Biotechnology has revolutionized the medical diagnostics field by providing accurate and relatively inexpensive tests for a wide spectrum of diseases (e.g., blood screening test for cholesterol, HIV, etc.) as well as for consumer products, such as home pregnancy tests.

- **Gene Therapy** – Gene therapy uses the genes themselves as drugs to treat hereditary genetic disorders.

2. Agricultural Production: Humanity has always relied on living things for food, shelter, clothing, and fuel. Our demand for these resources will increase as the world's population grows. In 1900, the global population was approximately 1.6 billion. This number has surged to over 6 billion today, and the United Nations expects the global population will reach 10 billion by 2030. Agricultural biotechnology can help humanity meet ever-increasing need by increasing yields, decreasing water and fertilizer usage, and provide for pest control methods that are more compatible with the environment.

- **Crop Plant Production** – Farmers and breeders have relied for centuries on crossbreeding and other genetic modification techniques to improve the yield and quality of crops. The tools of biotechnology allow plant breeders to select single genes that product desired traits and move them from one plant to another, thus opening a world of traits to benefit food production.

- **Environmental Benefits of Crop Production** – New biotechnology diagnostics tools detect plant diseases earlier and more accurately, decreasing the amount of chemicals needed to control the disease.

- **Plant-Made Pharmaceuticals** – With biotechnology scientists now use transgenic plants as manufacturing plants for pharmaceutical compounds, making plant-produced antibodies 25 to 100 times less expensive than cell fermentation methods.
- **Livestock Production** – Improvements in biotechnology research has fostered enhanced abilities to detect, treat and prevent diseases from better feed derived from transgenic crops designed to meet the dietary needs of different farm animals.

3. Industrial and Environmental Applications:

The bioscience industry employs the techniques of modern molecular biology to reduce the environmental impact of manufacturing and can best be characterized by the reduction or elimination of waste and low consumption of energy. Industrial and environmental biotechnology also works to make manufacturing processes more efficient for industries such as textiles, paper and pulp, and specialty chemicals.

- **Industrial Manufacturing Processes** – Biotechnology offers many options for minimizing the environmental impact of manufacturing processes by decreasing energy use and replacing harsh chemicals with biodegradable molecules produced by living plants and organisms.
- **Green Plastics** – Replacement of petroleum-derived polymers with biological polymers derived from grain or agricultural biomass is another environmentally-friendly aspect of biotechnology applications.

- **Environmental Monitoring and Remediation** – The techniques of biotechnology science are providing novel methods for diagnosing environmental problems and assessing normal environmental remediation. The remarkable ability of microbes to break down chemicals is proving useful not only in pollution remediation but also in pollutant detection.

4. Other Applications:

- **DNA Fingerprinting** – In its simplest form, DNA fingerprinting is the process of cross-matching two strands of DNA to establish paternity. Comparing the different-sized DNA fragments of two samples provides very strong evidence about whether or not the two samples come from a single source or individual.
- **Space** – Biotechnology has aided NASA to solve some of the toughest problems holding back space exploration, such as putting heavy objects into outer space, controlling spacecraft and explorer modules from the Earth, and developing energy-efficient ways to feed astronauts and keep them safe and healthy while they are far from home.
- **Domestic Animal Health** – The Center for Veterinary Biologics at the USDA has licensed more than 90 veterinary biotech products, including therapeutics for horses, a vaccine for feline leukemia, and gene-based drugs and vaccines to treat arthritis, infectious diseases and cancer in companion animals.

U.S. companies accounted for 40% of the global biotechnology market revenue in 2024.

Supportive 2025 **STATE TAX INCENTIVES FOR INDUSTRY DEVELOPMENT**

The data below summarizes four updated 2025 economic-development measures across states that support bioscience companies from early stage through testing and biomanufacturing. And through these types of strategic legislative actions, each of those measures enhance opportunities to capture and enhance a bioscience industry ecosystem that generates high-skill jobs and quality of life where the industry is located.

State	SBIR Matching Grant	Angel Investor Tax Credit	Manufacturing Sales and Use Tax Exemption	R&D Tax Credit
Alabama	■		■	
Alaska	■	■		■
Arizona		■	■	■
Arkansas	■		■	■
California			■	■
Colorado		■	■	■
Connecticut		■	■	■
Delaware	■			■
Florida	■		■	■
Georgia		■		■
Hawaii	■	■	■	■
Idaho			■	■
Illinois	■	■	■	■
Indiana	■	■	■	■
Iowa	■	■	■	■
Kansas		■	■	■
Kentucky	■	■	■	■
Louisiana	■	■	■	■
Maine		■	■	■
Maryland	■	■	■	■
Massachusetts	■	■	■	■
Michigan	■		■	■
Minnesota	■	■	■	■

State	SBIR Matching Grant	Angel Investor Tax Credit	Manufacturing Sales and Use Tax Exemption	R&D Tax Credit
Mississippi			■	■
Missouri			■	■
Montana	■			
Nebraska	■	■	■	■
Nevada				
New Hampshire				■
New Jersey	■	■	■	■
New Mexico	■	■	■	■
New York	■	■	■	■
North Carolina	■		■	
North Dakota		■	■	■
Ohio			■	■
Oklahoma		■	■	
Oregon			■	■
Pennsylvania			■	■
Puerto Rico	■		■	■
Rhode Island	■	■	■	■
South Carolina	■	■	■	■
South Dakota				
Tennessee	■			
Texas				■
Utah	■	■	■	■
Vermont	■		■	■
Virginia	■	■	■	■
Washington	■		■	
West Virginia	■		■	
Wisconsin	■	■	■	■
Wyoming	■		■	

■ Yes



RECENT STATE TAX CREDITS AND GRANTS

to Support Bioscience Growth

States and regions use economic development tax incentives to attract and retain bioscience companies, foster innovation clusters, and create high-paying jobs.

Here's a breakdown of common types of incentives and examples from various states from 2023-2025 efforts in company creation, expansion, and attraction legislation and other supportive economic development measures. Due to the extensive length of time inherent to the drug development process, small biotechnology companies, for example, often have difficulty obtaining early-stage financing for their research and development. Given smaller biotech companies are often not yet profitable, they are unable to immediately use their tax assets to offset income.

1. Research and Development (R&D) Tax Credits:

- **Widespread Adoption:** As of 2025, 39 states offer their own R&D tax credit programs, often complementing the federal R&D tax credit. These credits generally provide a discount on state income taxes based on qualified research expenses.
- **Refundable Credits:** Some states offer refundable R&D credits, meaning companies can receive a cash refund even if they don't have a tax liability. This is particularly beneficial for early-stage companies and startups that may not yet be profitable.
- **Enhanced Credits:** States may offer enhanced R&D credits for specific activities or collaborations.

R&D as a Multiplier: Public investment in R&D has a significant ripple effect. One estimate suggests that every \$1 of publicly funded basic research stimulates an additional \$8.38 in bioscience industry R&D investment within eight years.

• Examples of States with Notable R&D Credits:

- **Arizona** offers a credit for increased research activities, with a refundable portion for small businesses and additional credits for research conducted through state universities and research organizations.



- **California** offers a research tax credit and a sales tax exemption for equipment used in manufacturing and R&D in life sciences.
- **Connecticut** has increased its biotechnology R&D tax credit from 65% to 90% for companies making less than \$70 million a year in sales.
- **Massachusetts** increased its R&D credit cap as part of a new \$500 million life sciences bill.
- **Michigan** provides an extra \$200,000 bonus for firms collaborating with in-state universities.
- **Puerto Rico's** research and development investment credit includes a 50% credit granted for eligible investment in R&D activities, including operational expenditures, clinical trials, or intellectual property.
- **Utah** offers an R&D tax credit for businesses investing in qualified research activities within the state. The credit includes 5% of qualified research expenses (QREs) that exceed a base amount, 5% of certain payments made to qualified organizations for basic research, and 7.5% of QREs for the current tax year.
- **Virginia** revamped its R&D credit in 2024 to provide refundable credits up to \$45,000 per year for smaller firms.

2. Job Creation and Investment Credits/ Grants: Many states offer initial or enhanced incentives based on the creation of new jobs.

- **Alabama:** Provides a cash refund of up to 4% of the previous year's gross payroll for new jobs for up to 10 years.
- **Georgia & South Carolina:** Both states offer similar job credit programs over a five-year period, with credits ranging from \$1,250 to \$4,000 per net new job annually.
- **North Carolina:** The Job Development Investment Grant effort provides a cash refund of up to 80% of personal income taxes generated by new jobs for up to 12 years.
- **Virginia:** Offers a jobs credit of \$1,000 per net new job and an annual job creation grant for companies in Enterprise Zones.
- **Investment Tax Credits:** These credits are based on capital investments made by companies.
 - **South Carolina:** Offers an investment tax credit of up to 2.5% of manufacturing and productive equipment property.
 - **Wisconsin's** Business Development Tax Credit (BTC) Program offers refundable tax credits to companies making qualified capital expenditures without job creation requirements, if they do not decrease their Wisconsin head count.

- The **New Jersey** Innovation Evergreen Fund Program facilitates private sector engagement to raise and invest capital in qualified New Jersey-based companies and promote strategic collaboration in the state's innovation economy. Qualified Businesses may access up to \$10,000,000 of program investment capital for equity investments with New Jersey university spin-offs or businesses that utilize intellectual property developed at a New Jersey university that is core to its business model.
- **Sales and Use Tax Exemptions:** Many states provide full or partial sales tax exemptions for purchasing equipment or other tangible personal property used in manufacturing or R&D operations.
 - **Washington State's** general manufacturing and R&D incentive tax benefit program includes purchases of qualifying machinery & equipment used directly for manufacturing, R&D or testing operations in rural/high-unemployment areas.
 - **Maine** exempts sales of machinery and equipment used by the purchaser from sales tax, with equipment used directly and exclusively in research & development also qualifies for that sales tax exemption.
- **3. Angel Investor Credits:** Several states aim to encourage investment in technology startups, including biotech, by offering angel investor credits.
 - The **Kansas** Angel Investor Tax Credit program allows investors to earn up to 50% tax credit on qualified investments in Kansas startups.
 - **Louisiana's** Angel Investor Tax Credit provides a 25% tax credit on investments by accredited investors into state-certified "Louisiana Entrepreneurial Businesses" (LEBs), with an enhanced credit if the business is located in a qualified Opportunity Zone or in a parish (county) with population under 50,000.
 - **Maryland** has the Biotechnology Investment Incentive Tax Credit that provides investors with income tax credits (up to 50% or more depending on location/enhancements) for investments in Qualified Maryland Biotechnology Companies (QMBCs).
 - **New Mexico** offers an angel investor credit up to \$62,500 for investments in companies engaging in qualified research or manufacturing.

States across the nation have a diverse inventory of supportive economic development incentives to attract and retain the bioscience industry in their communities.

39 states and Puerto Rico have R&D Tax Credits

32 states and Puerto Rico have SBIR/STTR Matching Grants

26 states have Angel Funding Tax Credits

20 states have Early-Stage Venture Fund Tax Credits

40 states and Puerto Rico have Manufacturing Sales and Tax Exemptions

BIOMANUFACTURING STATE INCENTIVES for Continued Growth

Biomanufacturing in the U.S. is seeing rising investment and significant job growth, driven by breakthroughs in biotechnology research and production methods, and growing public demand for advanced therapies—factors that are vital to the bioscience economy and public health.

With this enhanced focus, there is a full spectrum of state and regional economic development measures now in place to support location siting of a manufacturing facility, including offering tax incentives, streamlining permitting processes and investing in workforce development programs to ensure a skilled labor pool.

Georgia offers a manufacturing investment tax credit that gives industrial companies including biotechnology operating in Georgia a limited opportunity to apply for an advantageous manufacturing investment tax credit to offset their payroll withholding tax liabilities within the state. To qualify for the Georgia investment tax credit, an industrial or telecommunications company must have operated in Georgia for the prior three years and made qualified investments in the state.

The **Kentucky** Reinvestment Act grants an income tax credit to companies that invest at least \$2.5 million in machinery and equipment. The credit may offset up to 100% of the company's income tax for up to 10 years. Companies must retain at least 85% of their employees at the time of approval.

Louisiana provides an Ad Valorem tax credit to manufacturers, distributors and retailers equal to 100% of the property tax paid on inventory. For most taxpayers, the credit is refundable for businesses that have less than \$500,000 in annual property taxes. The credit is not refundable for taxpayers receiving the industrial tax exemption. Excess credits may be carried forward five years. The carryforward period is

extended to ten years for a credit against the personal income tax. Credit is also available for property taxes paid on natural gas used in a natural gas storage facility.

Mississippi grants a tax credit against their corporate income tax to manufacturers, distributors, wholesalers and retailers equal to 100% of the property taxes paid on inventory. The credit also applies to property taxes paid on rental equipment. Excess credits may be carried forward five years.

New York State offers a tax credit against their corporate franchise tax and personal income tax, equal to 20% of the property taxes paid for real property owned by qualified manufacturers in New York and principally used for manufacturing. The credit may also be available to lessees. Qualified manufacturers must have at least 50% of manufacturing receipts and either all or at least \$1 million of manufacturing property in New York. Excess credits are not refundable and cannot be carried forward.

South Carolina grants an investment tax credit of up to 2.5% of the manufacturing and productive equipment property. The tax credit can be used to offset 100% of the company's income tax liability.

Tennessee offers an investment tax credit of 1% to 10% of industrial machinery. Expensed repair costs may also qualify for the tax credit. The tax credit may be used to offset 50% of the company's franchise and excise tax. Similar to the Tennessee jobs tax credit, the investment tax credit may be carried forward 25 years as a result of the single sales apportionment factor phase in.

West Virginia provides a tax credit against their corporate income and franchise tax credit on manufacturers, equal to 100% of the property taxes paid on inventory. Excess credits are not refundable and cannot be carried forward.

In addition, there are other needed building blocks for successful planning, construction, and operation of complex biomanufacturing facilities:

- Vital transport, communications, utilities, road access, air freight handling, water, broadband facilities are needed in all phases of site ramp-up and production.
- Availability of an existing talent pool of skilled bioprocessing technician workforce and relevant training organization like community college are imperative for continued growth of the site.

- Planning environment and business support assistance (Integrated, professional services to assist operations).
- Effective sector networks (Industry-led networks related to biomanufacturing issues).
- The presence of key suppliers of equipment and other manufacturing components.
- Proximity of biomanufacturing clients (Number of potential local/regional clients), and existing biomanufacturing cluster sites.



U.S. Bioscience Workforce DEVELOPMENT INITIATIVES

The positive impact that a robust life science industry has in the United States at large is also seen at the state and local level. As individual states seek to attract industry presence within their borders, the need for a skilled workforce across all portions and levels of the sector cannot be understated.

In collaboration with the private sector, non-profit organizations, and academia many state and local governments have implemented workforce development programs to meet the needs of the life science industry.

These workforce development programs cover all levels of education, starting with K-12 STEM programs that seek to make students aware of the opportunities available in the industry, to certificate programs for biomanufacturing and postgraduate studies.

In **Georgia**, the Georgia Biotech Teacher Training Initiative (BTTI) is delivered via a public-private partnership between Georgia Life Sciences and the Georgia Department of Education. Now in its seventh year, this training offers hands-on professional development for middle and high school teachers and leverages the biotechnology concepts found in traditional science education.

In 2025 in the state of **Ohio**, JobsOhio and the Ohio Life Sciences Association announced a training initiative to develop the state's biomanufacturing workforce. With plans to invest \$30 million over five years, JobsOhio will work with industry companies to build a new state of the art training center, while Ohio Life Sciences will oversee operations and collaborate with Ohio higher education institutions to deliver curricula, creating a hub-and-spoke program of community colleges and technical schools spanning the entire state.

"The bioscience industry sits at the unique and exciting intersection of key characteristics for societal and economic progress-generating high levels of innovation that improve lives and consistently offering a growing and varied mix of high-wage employment opportunities that drive the nation's economy."

TEconomy Partners 2024

Source: www.bio.org/jobs



In **Maryland**, the Employment Advancement Right Now (EARN) program is a state-funded, industry-led workforce grant program which issues grants to organizations that provide training and workforce development to individuals looking to develop skills in technical fields, such as bio-manufacturing.

In **Missouri**, 2025 marks the third year of an annual General Assembly appropriation of \$2.3 million state from the Missouri Department of Higher Education and Workforce Development. These funds are used to create and implement the Science to Jobs (S2J) program, which builds educational bridges with K-12 students and teachers and connects students with industry career opportunities.

North Carolina has implemented several life science specific workforce development programs. The Biomanufacturing Research Institute and Technology Enterprise (BRITE) has programs for training in Drug Discovery, Biomanufacturing, Pharmaceutical Sciences, and Clinical Research Sciences. BRITE was originally funded by the Golden Leaf Foundation, but now receives funding from the state-sponsored North Carolina Biotechnology Center.

In 2025, **Puerto Rico's** Department of Economic Development and Commerce established the \$17,000,000 Reshoring Workforce Development Fund. This fund will be used to establish fast track learning programs for advanced manufacturing and enabling technologies at vocational and higher education institutions. This program will have badges that consists of 10-16 hours of exposure to different fields followed by an apprenticeship program.

The **Wisconsin** Biohealth Tech Hub received designation from the U.S. Economic Development Administration, which included funding for a specific workforce project led by Madison College and Milwaukee Area Technical College. The state has also provided additional matching funds to support the project which will establish apprenticeships and create talent pipelines that align with employer demands.

Rapid Growth Projection: The bioscience market is projected to experience significant expansion, with forecasts predicting it will reach approximately \$5.04 to \$5.85 trillion by 2034, growing at a Compound Annual Growth Rate (CAGR) of approximately 13-14%.

GLOSSARY OF BIOSCIENCE TERMS

As the bioscience ecosystem has advanced over the decades, there is a need to better define key components of company creation and expansion and description of the foundational building blocks for individuals or groups interested in various phases and tools needed to successfully navigate the growing economic development community of interest in the bioscience industry. Here are some useful examples of terms that reflect the expanding nature of those collaborative efforts.

Angel Investor: An investor who provides financial backing for small startups or entrepreneurs. Angel investors typically invest their own funds, as opposed to venture capitalists who manage pooled money in a professionally managed fund. The capital provided by an angel investor can be a one-time injection of seed money or ongoing support.

Biomanufacturing: A type of manufacturing that utilizes biological systems to produce commercially important biomaterials and biomolecules for use in medicines, food, and beverage processing, and industrial applications.

Bioscience Research: The basic, applied, or translational research that leads to the development of therapeutics, diagnostics, or devices to improve human health or agriculture.

Business Incubation: A business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services.

Business Retention: The activity that an economic or workforce development agency undertakes in order to reduce the loss of private sector businesses.

Comprehensive Economic Development Strategy (CEDs): A strategy-driven plan for regional economic development. A CEDs is the result of a “regionally-owned” planning process designed to guide the economic prosperity and resiliency of an area or region. It provides a coordinating mechanism for individuals, organizations, local governments, and private industry to engage in a meaningful conversation and debate about the economic direction of their region.

Cluster / Industry Cluster / Innovation Cluster: Networks of thematically related companies and institutions in close, geographic proximity that — through competition and collaboration — have the potential to produce more efficient economic output as a group than they could individually.

Discretionary Incentives: A discretionary incentive is a tax benefit, grant, or financial incentive awarded at a government agency’s discretion, typically requiring prior approval and a review process.

Drug Development Costs: The total cost of developing a new drug, including studies conducted after regulatory approval. According to a 2020 analysis by the Tufts Center for the Study of Drug Development, the average cost is \$2.7 billion and up to ten years of research and testing.



Economic Development: A process that influences the growth and restructuring of an economy to enhance the economic well-being of a community. Economic development encompasses job creation, increases in community wealth and the improvement of quality of life.

FDA Review: The regulatory process by which the U.S. Food and Drug Administration reviews a sponsor company's data from clinical studies to determine if the new product is safe and effective for its intended use.

Human Capital: A measure of the economic value of an employee's skill set, including education, experience, abilities, and productivity.

Incentives: Benefits or rewards offered to motivate action. Incentives are often as part of an economic development strategy, including tax abatements and credits, low interest loans, infrastructure improvements, job training and land grants.

Net Operating Losses: Net operating loss is the result when a company's allowable deductions exceed its taxable income within a tax period. The NOL can generally be used to offset a company's tax payments in other tax periods through an IRS tax provision called a loss carryforward.

Initial Public Offering (IPO): The first sale of stock by a company to the public.

Public-Private Partnership: A venture which is funded and operated through a partnership between a government entity and one or more private sector companies, usually to finance, build or manage a project for the public good.

Seed Capital: The funding required to get a new business started. The capital is almost always supplied by an entrepreneur and his/her family, friends and relatives, and it is used to help attract other investments.

Small Business Innovation Research Grants (SBIR): Federal and state grant agreements entered into with companies focused on the performance of experimental, developmental or research work leading to potential creation of goods and services.

Statutory Incentives: A statutory tax incentive is a tax benefit automatically available to eligible organizations or individuals under established laws and regulations without requiring discretionary approval or negotiation.

Tax Credit: The amount of money that can be offset against a tax liability. Tax credits are often used as an incentive to attract new companies and retain existing companies in the state.

Tax Exemption: The amount of money that can be subtracted from the assessed market rate. Tax exemptions are often granted to individuals, institutions and types of property.

Economic Development Guide

CONCLUSION

State and regional partnerships across the nation continue to drive the growth and resilience of America's bioscience industry – advancing innovation across health, agriculture, and environmental research and manufacturing. Whether the need is for capital, workforce training, modern facilities, technology transfer, or supportive business climate legislation, the bioscience industry continues to work shoulder to shoulder across public and private sectors to translate discovery into solutions that improve lives in the United States and around the world.

As research, development, and manufacturing evolve, so too do the challenges. Sustaining this progress will require renewed commitment to funding early-stage innovation, strengthening access to venture capital, and expanding the workforce pipeline. Above all, it will demand more collaboration between industry, academia, and government partners to keep America's bioscience innovation vibrant in the face of rising global competition. The future of this sector – and of the science it brings to market -- will depend on continued public-private partnership and a shared determination to confront emerging global needs with creativity and resolve.

Biotechnology holds immense potential to transform numerous key sectors of our economy and will create good paying jobs at all skill levels in health care agriculture, defense, industrial manufacturing, and more.

Source: www.biotech.senate.gov/final-report 2025

The information presented in this report is intended to help guide that continued effort. The examples here illustrate what becomes possible when states and regions align around a common goal: turning research into results and science into hope. As in the past, enduring progress will require steadfast support for science and a long-term commitment by local and state stakeholders to look focus on a shared vision of robust economies, resilient industries, and healthier citizens for generations to come.

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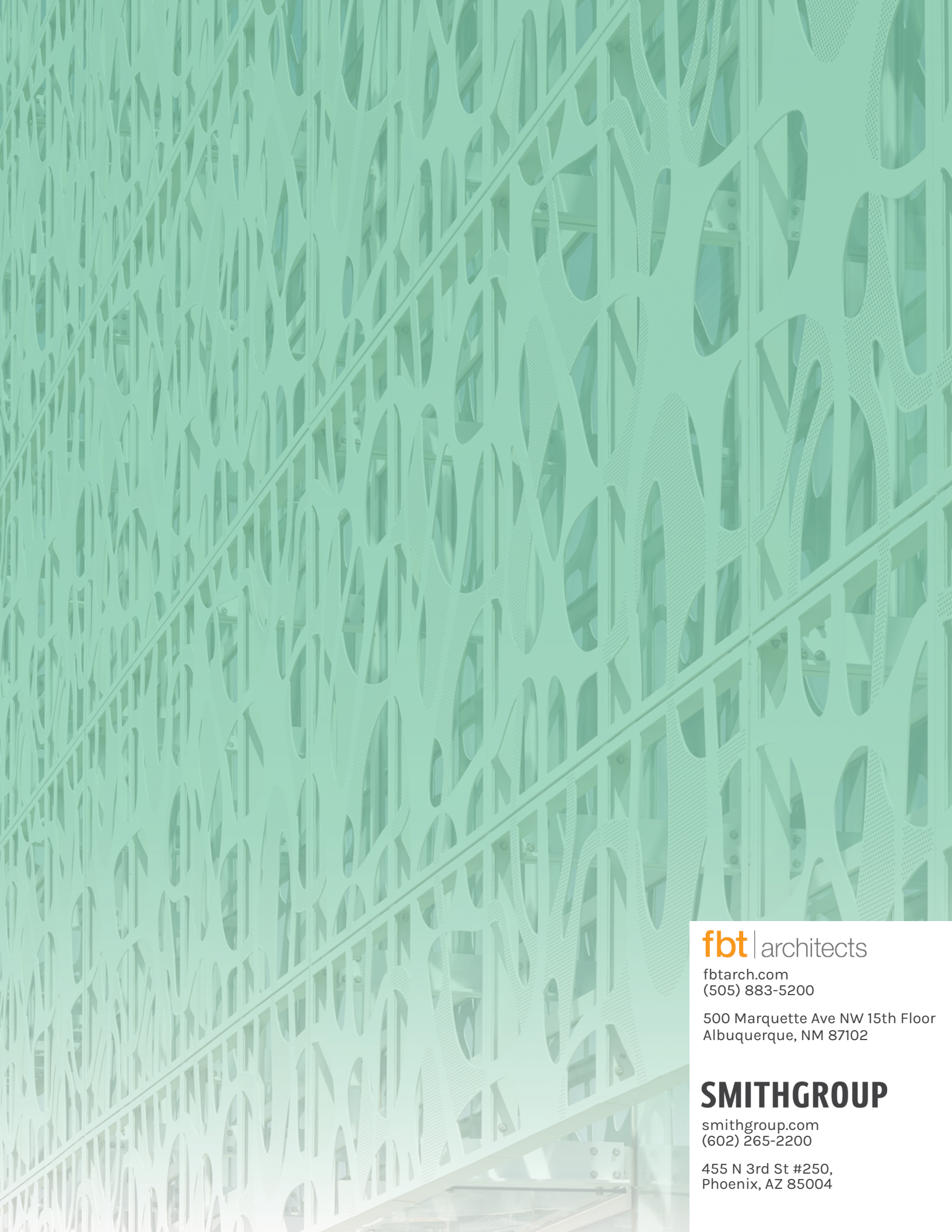
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