# 1ST AND CENTRAL RFP SITE TOUR // 08.20.2014 INNOVATE ABQ MASTER PLAN

## RESEARCH DISTRICTS REDEFINING INNOVATION

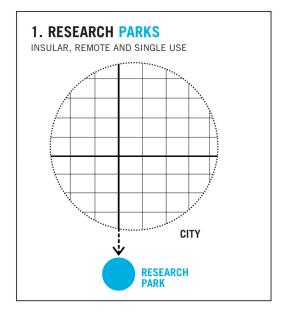
If you take the major research institutions and tech clusters that are being created, how do you take them and arrange them in a purposeful way with mixed use housing and amenities that attract talent but work for industry?

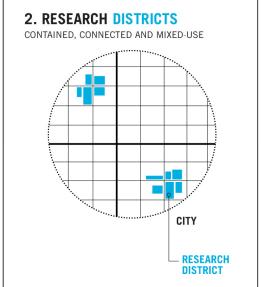
**BRUCE KATZ** /

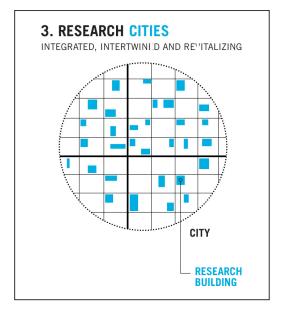
**Program**Wired Magazine, Feb. 2012

## **GOALS + OBJECTIVES /**

## The Evolution of Research + Innovation







## **GOALS + OBJECTIVES** / Creating a Research District



MIT University Park / Cambridge, MA

## **GOALS + OBJECTIVES** / Creating a Research District



QRDC Research District / Doha, Qatar

## PLANNING FRAMEWORK ENVISIONING INNOVATE ABQ

## PLANNING FRAMEWORK /

Objectives

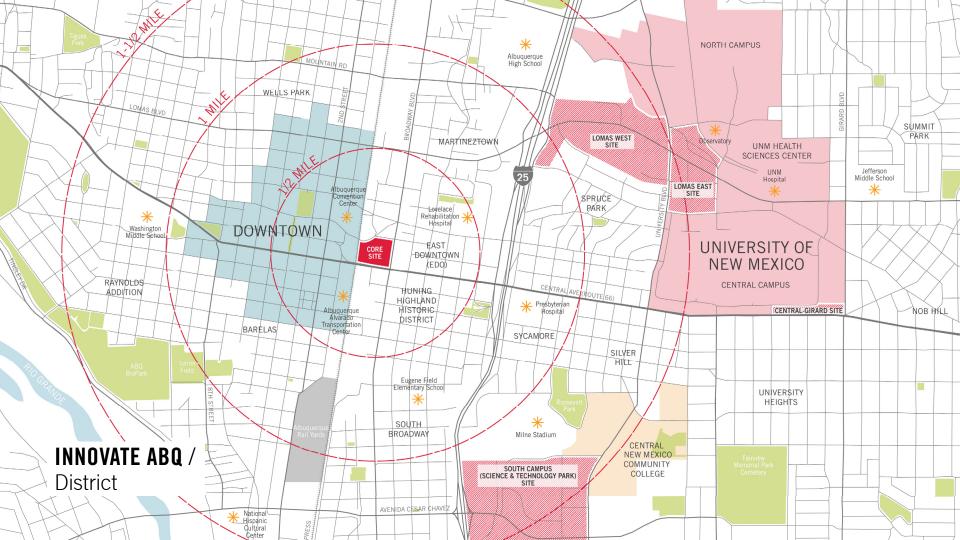


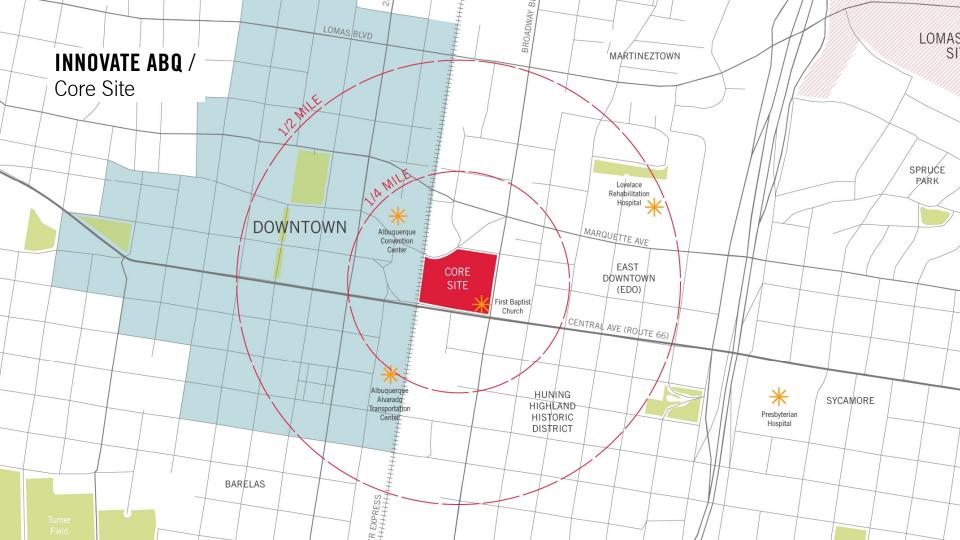
Leveraging both the assets of the city and the University, Innovate ABQ will be a catalyst for a new innovation economy in Albuquerque.

## PLANNING FRAMEWORK /

## Site Assessment

	PEOPLE	ASSETS	VIBE	SUITABILITY	PROXIMITY	SYNERGY	SPACE	IDENTITY	OWNERSHIP	TOTAL
SITE 1. South campus	3	2	0	5	3	2	2	3	5	25
SITE 2. Lomas West	1	0	0	5	3	2	1	1	4	17
SITE 3. Lomas east	3	3	1	5	3	2	3	2	4	26
SITE 4. Central- Girard	5	5	3	2	4	5	3	5	5	37
SITE 5. CENTRAL- BROADWAY	5	5	5	4	4	5	5	5	1	39
SITE 6. Mesa del sol	2	2	2	4	0	3	2	2	5	22

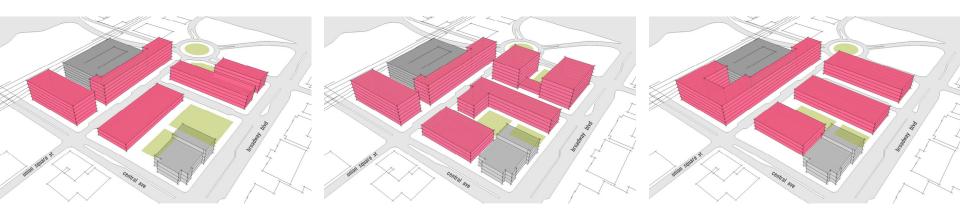






## PLANNING FRAMEWORK /

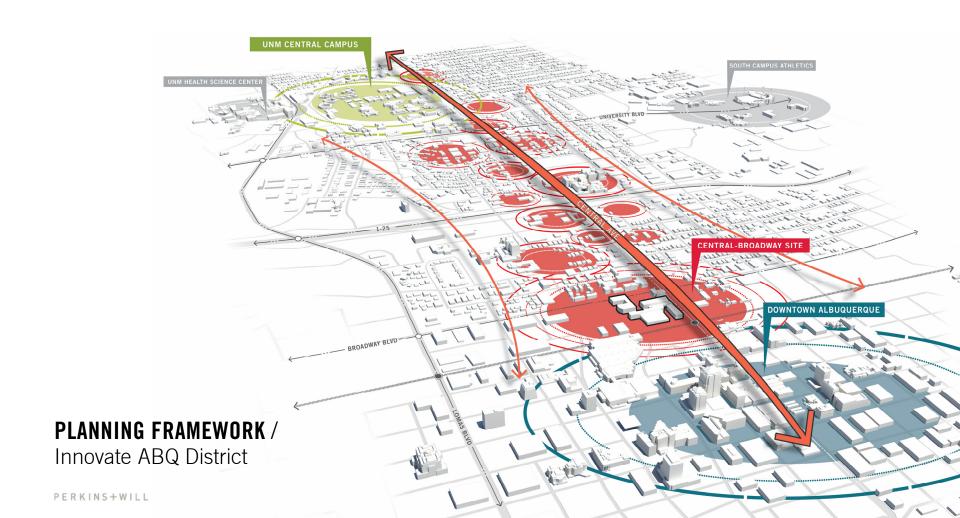
## Site Development Testing



SITE 5: CENTRAL - BROADWAY

Option b
SITE 5: CENTRAL - BROADWAY
08.02.2013

option c SITE 5: CENTRAL - BROADWAY 08.02.2013



# MASTER PLAN DESIGNING A RESEARCH DISTRICT

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.

CHARLES DARWIN /

## MASTER PLAN / Principles / Livability

- It should be as easy as possible to live a rich and interactive life without relying on an automobile for the majority of one's daily routine.
- We should have a highly functional system of moving people and goods
- Development should be focused on the quality of the process, not just the speed at which these events unfold.
- Enhances retention of graduates and provides an environment for the creative class.

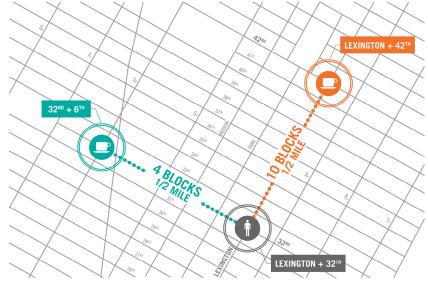
Livability is a strategy for creating a place where people want to live, and where they thrive as a result of living in this place.



## MASTER PLAN / Principles / Accessibility

- Designing to accommodate as many people as possible as they all move through the city.
- Includes elements ranging from building access to transportation choices.
- Encourages systems that stimulate activity, and creates satisfaction with environment.

Simply put, accessibility is providing people with great options for getting around.

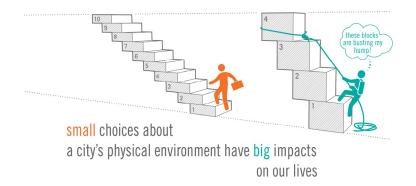


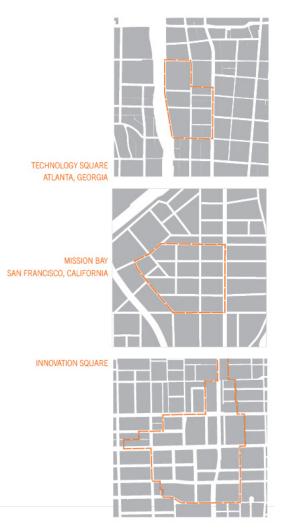


## MASTER PLAN /

## Principles / Walkability

- Critical to the success of a community and to the health of its citizens.
- Consists of a highly connected system of streets that supports healthy lifestyles and reduces dependency on automobiles.
- Creates conditions that promote the exchange of ideas and success of the community.





## **MASTER PLAN** /

## Principles / Adaptability

- Requires the existence of a framework into which components can be inserted, changed, modified and replaced with minimal impact.
- The framework should be permanent.
- Streets are the single most important element.
- Appropriately sized blocks to accommodate a variety of uses and easy of development.

The goal is to provide a lasting flexible system that will accommodate change long into the future with maximum efficiency.



## MASTER PLAN / Principles / Sustainability

- We must align our actions with our goals.
- We should create a comprehensive strategy for creating better communities.
- We must constantly experiment and test.
- Courses can be modified to address alternative strategies, tactics, and components.

In highly complex processes simplicity and elegance are key to success.











# DESIGN GUIDELINES ACCOMMODATING FLEXIBILITY IN DEVELOPMENT

## **DESIGN GUIDELINES /**

## **Development Guidelines**

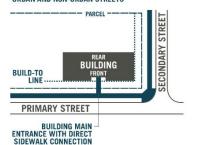
## **5.3.2. BUILDING PLACEMENT**

All buildings are required to have a main entrance connecting to a Public Right-of-Way.

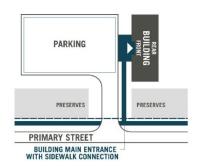
Buildings located on an Urban Street (See "4.2.1.1. Non-Urban Street, Type A" on page 70) are required to be built at the Build-to-Line. The Build-to-Line is located at the Property Line or at the Utility Easement edge, in cases where a Utility Easement is present.

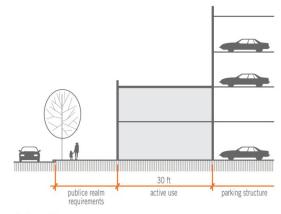
Sidewalk connections to the public sidewalk shall be provided from all main building entrances that face Urban Streets.

## FIGURE 5.3C. BUILDING PLACEMENT DIAGRAM URBAN AND NON-URBAN STREETS

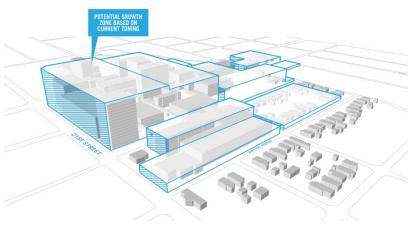


## FIGURE 5.3D. BUILDING PLACEMENT DIAGRAM FOR NON-URBAN STREETS ONLY

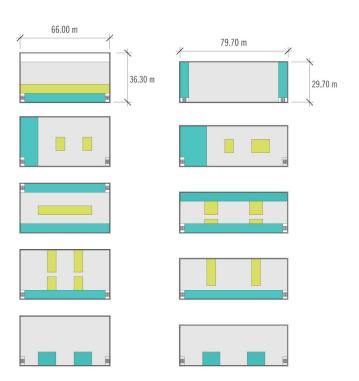




structured parking



## **DESIGN GUIDELINES** / Development Guidelines / Research Buildings



		VENTILATION	DRIVEN LABS	HEAT GAIN [	DRIVEN LABS
Ye M	s aybe	"Supply Driven Min OA cfm > Fumehood cfm"	"Exhaust Driven Fumehood Exhaust > Min OA cfm"	"Non-Recirculating Air Zero Contamination - Samples Engineering"	"Recirculating Air Bio-Informatics, Computer Driven"
_	Energy Use Intensity MJ/m²-yr(kBTU/ft²-yr)	2000-3500 (180-	2000-3500 (180-	2000-3500 (180-	2000-3500 (180-
		320)	320)	320)	320)
	Carbon Emission Intensity Kg/m²-yr (lbs/ft²-yr)	225-375 (50 -75)	225-375 (50 -75)	225-375 (50 -75)	225-375 (50 -75)
RKS	Outside Air Changes per Hour (for a 10' ceiling)	4-6 occupied, 2-4 unoccupied	> 6 occupied; depends on hood density	<4 occupied	0.5 (per ASHRAE 6: office std)
MA	Lighting Power Density - W/m² (w/ft²)	10.8 (1.0) - 11.8	10.8 (1.0) - 11.8	10.8 (1.0) - 11.8	8.6 (0.8) - 10.8
E		(1.1)	(1.1)	(1.1)	(1.0)
BENCHMARKS	Equipment Power Density - W/m² (w/ft²)	10.8 (1.0) - 43 (4.0)	10.8 (1.0) - 43 (4.0)	53.8 (5.0) - 161.4 (15.0)	53.8 (5.0) - 129.1 (12.0)
	Cooling Power Density - m²/Ton (ft²/Ton)	15 - 30 (150-300)	16 - 30 (150-300)	17 - 30 (150-300)	18 - 30 (150-300)
	Fan Power Efficiency- kW/L-s (kW/cfm)	0.14 - 0.32 (0.3	0.14 - 0.32 (0.3	0.14 - 0.32 (0.3	0.14 - 0.32 (0.3
		- 0.6)	- 0.6)	- 0.6)	- 0.6)
	Total System Static Pressure - kPa (inches of Water)	1.25 (5)	1.25 (5)	1.25 (5)	1.25 (5)
	Contaminant sensors to allow for lower air change rates	•	•	0	
	Use high performance, Low Flow Hoods	•	•	•	
	Underfloor Air Distribution			0	•
	Use Relief Air From Offices as Make Up Air	•	•	0	
	Zone For Heat Gain	•	•	•	•
	Chilled Beams	0	0	•	•
	Radiant Ceilings	0	0	•	•
	Natural Ventilation				•
	Daylighting	•	•	•	•
	Night Temperature Setback	0	0	0	•
ES	Condensate Heat Recovery	•	•	•	•
STRATEG	Energy Recovery & Enthalpy Wheels	•	•	•	•
3AT	Supply Air Temperature Reset	•	•	•	•
ST	Solar Orientation and Shading	•	•	•	•
	Thermal Storage to Reduce Cooling Peak Loads	•	•	•	•
	Cogeneration/ Tri Generation	•	•	•	•
	Solar Energy (Thermal and Electric)	•	•	•	•
	Carbon Cap and Trade Between Tenants	•	•	•	•
	Bay Water Heat Rejection	•	•	•	•
	Waste Water Heat recovery	•	•	•	0
	Purchasing Plans for High Efficiency Equipment	•	•	•	•
	Effluent Modeling	•	•	•	•
	Measurement & Verification to Inform Benchmarks	•	•	•	•
	Submetering for M&V	•	•	•	•

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## **DESIGN GUIDELINES /**

## Development Guidelines / Parcel Data





## **BLOCK A01**

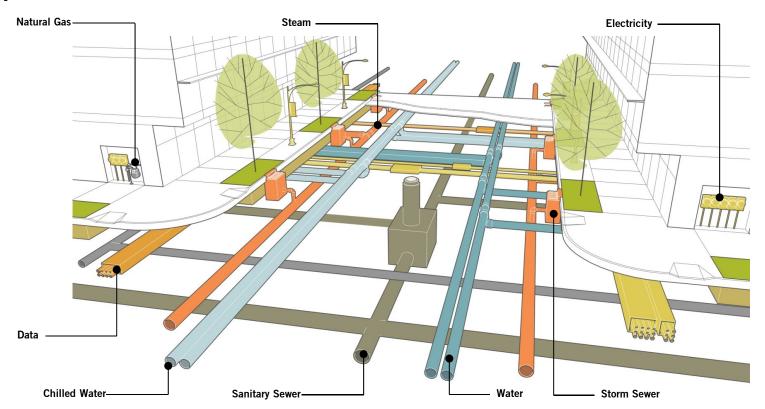
TOTAL BLOCK AREA	+/- 80,574 SF [1.85 ACRES]
ZONING CATEGORY	UMU-2
MAX. BLDG HEIGHT	6 STORIES (8 STORIES WITH SPECIAL USE PERMIT)
TRANSITIONAL HEIGHT LIMIT	4 STORIES (50' FROM BUILD-TO LINE)
NOTES: 1. Block areas are based on the survey by CHW for the	ne Gainesville Regional Utilities, dated 4.30.2012. Appendix B Block Data does not guarantee the accuracy of the information.
<ol> <li>Appendix B Block Data is an overview of the sites.</li> <li>Block areas and build himes are diagrammatic are</li> <li>Block area is defined as the developable area withing</li> </ol>	zoning regulations. Refer to the City of Gainesville's ÚMU-2 zoning code for a complete description of the block's zoning requirements nd will need to be field verified to ensure proper location.
3. Block areas and build-to lines are diagrammatic ar	zoning regulations. Refer to the City of Gainesville's ÚMU-2 zoning code for a complete description of the block's zoning requirements at will need to be field verified to ensure proper location.
Block areas and build-to lines are diagrammatic ar     Block area is defined as the developable area withi  STREET TYPES	zoning mgaladions. Refer to the City of Galmessile's UNU-2 zoning code for a complete description of the block's zoning requirements of all need to be first verified to ensure proper location.  In the build-to lines.
Block areas and build-to lines are diagrammatic art     Block area is defined as the developable area within  STREET TYPES  SW 2ND AVE	zoning mgaladions. Refer to the City of Galmensile's UNU-2 zoning code for a compilete description of the block's zoning mgaliementh of an illned to be fireful for ensure proper location.  PRINCIPAL
Block areas and build-to lines are diagrammatic art.     Block area is defined as the developable area with  STREET TYPES  SW 2ND AVE  NEW STREET	zoning mysulations. Refer to the City of Gameratins UNU-2 zoning code for a complete description of the block's zoning mysulements and most to be felled writted to ensure proper tocation.  PRINCIPAL  GREEN STREET

PROJECTED USE(S)	
S+T RESEARCH LABORATORY	+/- 285,296 SF
S+T BUSINESS SPACE	+/- 140,040 SF
RESIDENTIAL + HOSPITALITY	
COMMERCIAL RETAIL	+/- 25,690 SF
INSTITUTIONAL	
TOTAL	+/- 451,026 SF



## **DESIGN GUIDELINES /**

## **Utility Guidelines**



The goal is to make appropriate development as easy as possible to accomplish; removing roadblocks to doing the right thing.

## PROCESS OUR APPROACH

## PROCESS / Mapping & Analysis



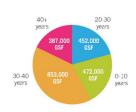
## **EXISTING FACILITIES**

Building infrastructure can become obsolete very quickly as medical technologies evolve and needs change. Flexibility in the most basic building elements, such as column grid size, load capacity and floor-to-floor heights, can increase building lifetime. A healthcare building that is over 40 years old is typically considered for replacement, while buildings that are 20-40 years old are recommended for major renovation.

Today, more than a quarter of St John's facilities are over forty years old, by 2020, more than half of the campus will have passed the benchmark for end of building life expectancy.\*

Among the aging structures is the 16-story J.A. Chapman Tower (1976), which hosts the core medical functions. The tower is flanked by two of the oldest buildings on campus—the Kravis Building (1987) and the Heyman Building (1987). The former, in particular, holds great potential for a future hospital building due to its proximity to the J.A. Chapman Tower. Another potential site for a new hospital is the site of the 1967 Holliman Medical Building across 19th Street.

Today, over a quarter of St John's facilities are over forty years of age; by 2020, more than half of the campus will have passed the benchmark for end of building life expectancy.\*



















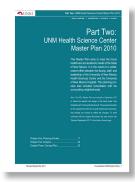
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<sup>\*</sup>By square foot, not including parking structures

## **PROCESS** / Understanding Planning Context



**UNM MASTER PLAN UPDATE** 



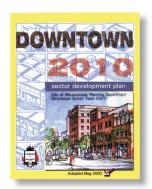
UNM HEALTH SCIENCE CENTER MASTER PLAN



CENTRAL AVE CORRIDOR BRT FEASIBILITY ASSESSMENT



LOMAS CORRIDOR ULI REPORT



DOWNTOWN 2010 SECTOR DEVELOPMENT PLAN



EAST DOWNTOWN (EDO)
REGULATORY PLAN

PERKINS+WILL

## PROCESS / Measuring & Benchmarking



**THE DIAGNOSIS:** The health district is currently well positioned to evolve as a major medical center in the southeast. To live up to its potential as a destination, however, it will need to be better connected to rest of the nation.

### AIR ACCESS

Current air travel through Baton Rouge Metropolitan Airport (BTR) provides access to key points in the Southeast, but strategic development of service to other airline markets and building connections to nearby regional travel resources could expand the Health District's reach even further.

### DIRECT AIR CONNECTIONS TO BTR (BTR) serves just under one mil-

lion passengers per year with direct



### CONNECTIONS TO BTR + MSY

24

With strategic transit connections to Louis Armstrong New Orleans International (MSY), the Health District could benefit from a much more expansive network of non-stop flights and attract from the nearly 10 million passengers per years passing through that airport.



### THE STATS

BATON ROUGE AIRPORT

## 25 FLIGHTS PER DAY

in and out of Baton Rouge per day to Houston, Dallas, Atlanta and Charlotte.

### NEW ORLEANS AIRPORT

200 FLIGHTS PER DAY to all major US hub airports and many non-hubs, just over one hour's drive from the Health District.

### BTR AIRPORT CAPACITY

32% of GATE SPACE is currently unused, pointing to root for growth without major airport expansion projects.

### HIGHWAY ACCESS

The Health District is in a location of strategic importance for regional access near the interchange of Interstates 10 and 12. This places it within reach of a much larger portion of the Southeast, with over 6 million people in metropolitan areas within a six hour drive distance in addition to the 20 million within a onehour flight.



### THE STATS

### SOUTHEAST MAJOR MARKETS

## 20.3 MILLION

people live in metro markets within one-hour flight of Baton Rouge.

### SUBMARKETS

6.3 MILLION

additional people live within a halfday's drive of the Health District.

### RAIL ACCESS

The Health District will benefit from its proximity to New Orleans, Louisiana's largest metropolitan area. The proposed passenger rail service linking New Orleans with Bation Rouge would potentially feature midway stops at the Health District and Kenner, from which shuttle service could connect to the New Orleans airon.



## THE STATS

## SOUTHEAST LOUISIANA

## 10 TRAINS PER DAY

proposed to and from New Orleans, including a stop at Kenner/MSY airp

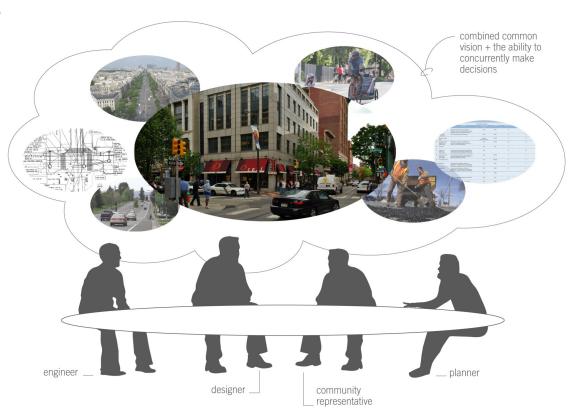
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## PROCESS /

## Collaborating With Stakeholders

- Board of Regents
- University of New Mexico (UNM)
- UNM Health Sciences Center
- City of Albuquerque
- Bernalillo County
- Mid-Region Council of Governments (MRCOG)
- Architecture 2030
- Arts & Cultural District (ACD)
- Sandia National Laboratories (SNL)
- Innovate ABQ Task Force
- Central New Mexico Community College (CNM)
- East Downtown (EDo)
- Martineztown
- Laguna Pueblo
- Greater Albuquerque Chamber of Commerce (GACC)



## PROCESS /

Prepare The Plan





Project Summary + General Description



Vision + Goals + Framework

DEVELOPMENT REGULATIONS



Detailed Development Criteria

DEVELOPMENT GUIDELINES



Design Direction + Planning Methodology

Sustainability Transportation Water+Drainage Research Buildings

DATABASE



Operating Platform

## NEXT STEPS THE WAY FORWARD

## **NEXT STEPS** /

## Phase 1

