



Utah's First 15-Minute City

Working Group Presentation

March 23-25, 2021

SOM

Skidmore, Owings & Merrill

1. Land Use Programming & Alternative Framework Concepts

Three Development Concepts



1 - Complete Community

A highly-walkable mixed-use district containing all land uses necessary to meet typical day-to-day needs, including housing, employment, institutional affiliations, shopping, F&B, entertainment, schools, child care, parks, recreation, and some government services.



2 - Regional Hub

Community-based programming focused on parks, trails, quality of life issues. Strengthen surrounding communities by providing complementary land uses such as moderate-density / moderate price-point housing, civic functions, and a walkable retail & entertainment district.



3 - Economic Catalyst

Maximize economic development with a strong institutional affiliation and a focus on new business growth. Include a strong regional retail or entertainment function. Support statewide economic initiatives. Provide complementary land uses to support an intensive development vision.

Target Metrics for Stage 2 Concepts

1 Complete Community

Focus: Create a complete, context-specific district.
Capture Area: +/- 1 mile from site center.
(+/-15 min walk)

Development Area: **55%**

Open Space: **25%**

Roads/Infrastructure/Mobility: 20%

GFA Target: **15 million sf**

Gross Density: **1.0 FAR**

Retail/F&B: 2% of GFA

Residential % of GFA: **60%**

Commercial % of GFA: **40%**

2 Regional Hub

Focus: Complement surrounding cities.
Capture Area: +/- 4 miles from site center.
(+/-15 min bike ride)

Development Area: **50%**

Open Space: **30%**

Roads/Infrastructure/Mobility: 20%

GFA: **15 million sf**

Gross Density: **1.0 FAR**

Retail/F&B: 5% of GFA

Residential % of GFA: **50%**

Commercial % of GFA: **50%**

3 Economic Catalyst

Focus: Support statewide economic initiatives
Capture Area: +/- 20 miles from site center.
(+/-15 min drive)

Development Area: **60%**

Open Space: **20%**

Roads/Infrastructure/Mobility: 20%

GFA Target: **15 million sf**

Gross Density: **1.0 FAR**

Retail/F&B: 3% of GFA

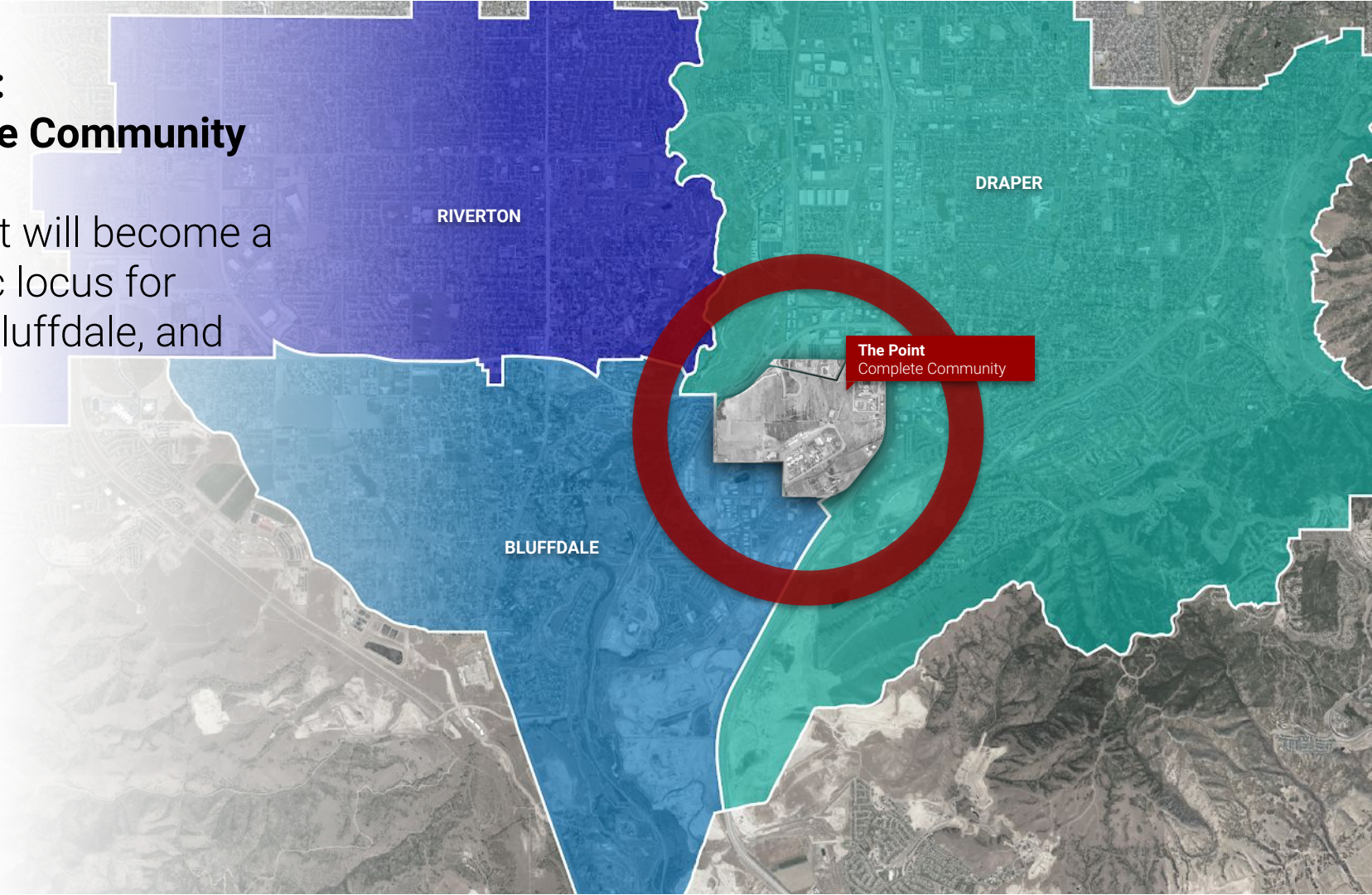
Residential % of GFA: **40%**

Commercial % of GFA: **60%**

Concept 1: Complete Community

Concept: Complete Community

The Point will become a new civic locus for Draper, Bluffdale, and Riverton.



Components Supporting Key Vision Elements

TRANSIT

Balanced mix of land uses reduces off-site traffic and encourage more walking. Transit further reduces car trips and assists with air quality.



COMPLETE COMMUNITY



ECONOMY

Economic development is strengthened by placing new housing in close proximity to innovation and technology jobs.



INNOVATION

Broad variation in land use provides the foundation for a new type of innovation environment.



SUSTAINABILITY

A diverse mix of land uses reduces car trips and an interconnected open space network promotes water conservation.



COMMUNITY

With 60% residential land use, community is enhanced through live-work environments and the creation of strong neighborhoods.



COLLABORATION

Building new neighborhoods and creating strong regional trail connections promotes collaboration between project partners.



COMPLETE COMMUNITY

Statistical Summary: Concept 1

	ACREAGE	
CURRENT LAND HOLDINGS	606.0	
CANALS	5.3	
ROAD FRONTAGE	4.5	
GROSS DEVELOPABLE LAND AREA	596.2	25,970,472 SF
ROADS, CIVIC & INFRASTRUCTURE	20.0%	121.2
PARKS & OPEN SPACE	25.0%	151.5
NET DEVELOPABLE LAND AREA	55.0%	333.3
		14,518,548 SF

NON-RESIDENTIAL USES	ACREAGE	SF	FAR	PARKING	TOTAL GFA	% NDLA	% GFA	NOTES
COMMERCIAL OFFICE	140.0	6,098,400	0.9	21,954	5,488,560	42.0%	37.1%	
INNOVATION OFFICE	0.0							
INSTITUTIONAL / ANCHOR TENANT	0.0							
RETAIL / FOOD & BEVERAGE	11.5	500,000	0.6	600	300,000	3.4%	2.0%	
CIVIC	0.0							
HOTEL	4.8	207,429	0.6	250	125,000	1.4%	0.8%	250 KEYS
MIXED USE	0.0							
	156.2			22,804	5,913,560	46.9%	40%	

RESIDENTIAL LAND USES	ACREAGE	UNITS/AC	UNITS	GFA/UNIT		TOTAL GFA	% NDLA	% GFA	NOTES
SINGLE-FAMILY DETACHED	20.8	12	250	1,600	500	400,000	6.3%	2.7%	FOR SALE
WORK FORCE ATTACHED / 3 STORY GARDEN APTS	0.0	0	500	1,600	500		0.0%		FOR SALE
ATTACHED / TOWN HOUSES	56	18	1100	1,600	1,100	1,760,000	16.8%	11.9%	FOR SALE
CONDOMINIUM	30.0	45.00	1450	1,600	725	2,320,000	9.0%	15.7%	FOR SALE
MULTIFAMILY APARTMENT	70.0	57.50	4,400	1,000	2,200	4,400,000	21.0%	29.7%	RENTAL
	176.8		7700		5,025	8,880,000	53.1%	60%	

TOTALS	333.1				27,829	14,793,560			
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RESIDENTIAL POPULATION **15,400**

NET FAR **1.0**

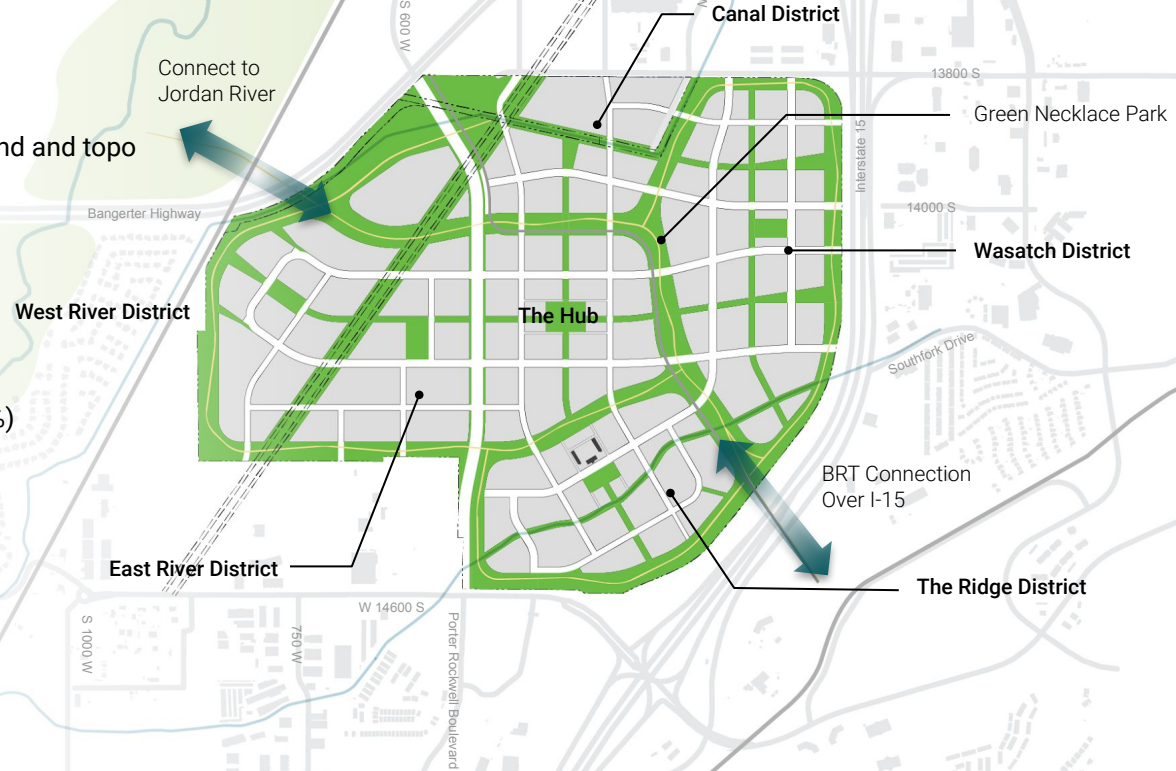
Urban Design Framework & Major Public Realm Elements

Key Elements:

- Distinct neighborhood clusters
- Portion rotated to align with wind and topo
- 25% Open Space Target

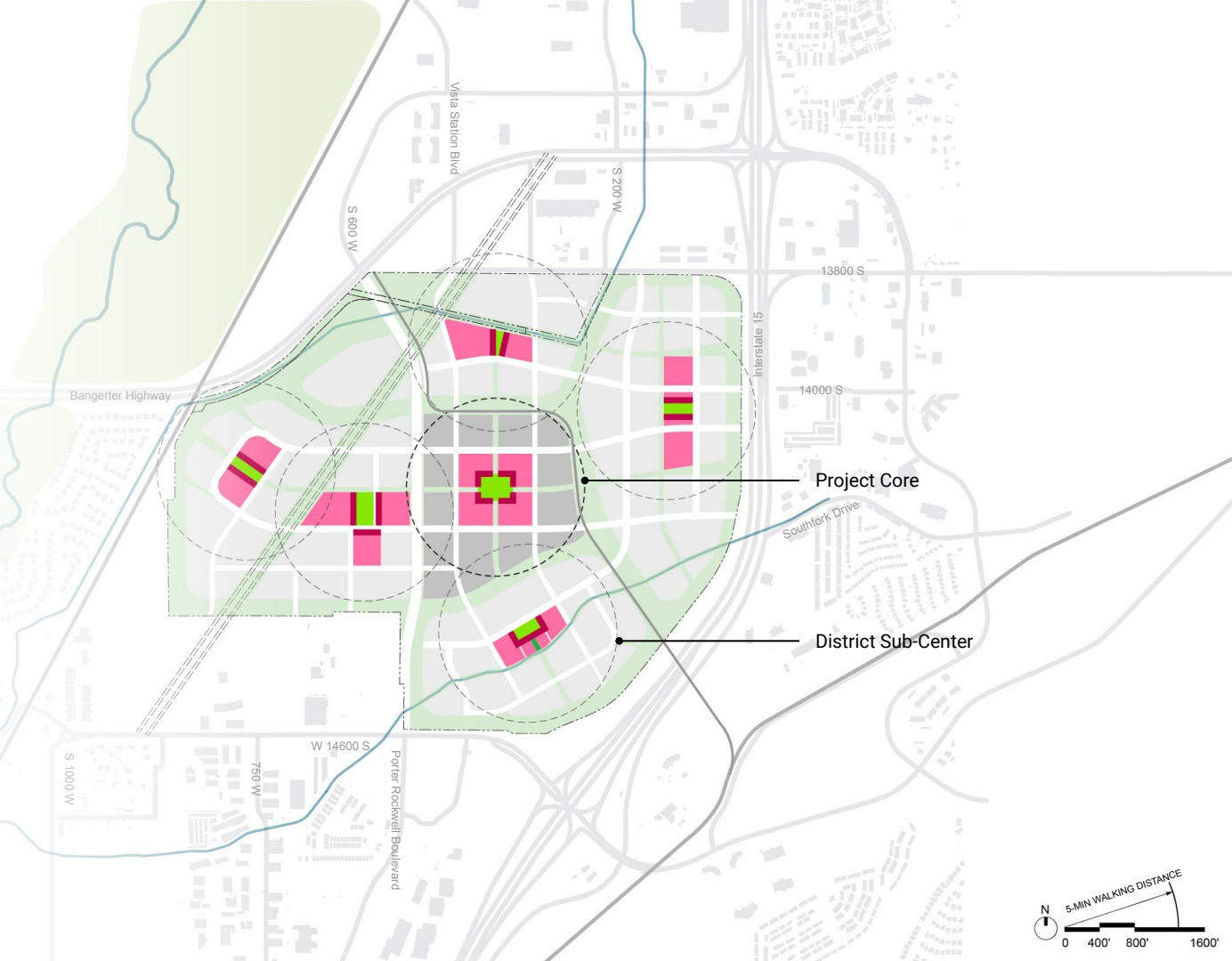
Total Land Area: 606 ac.

- Developable Area: 333 ac. (55%)
- Open Space: 151 ac. (25%)
- Roads: 121 ac. (20%)



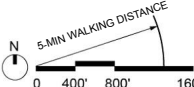
Cores & Centers

 4-Minute Walking Distance



Project Core

District Sub-Center



Signature Element: **Regional Retail Hub**

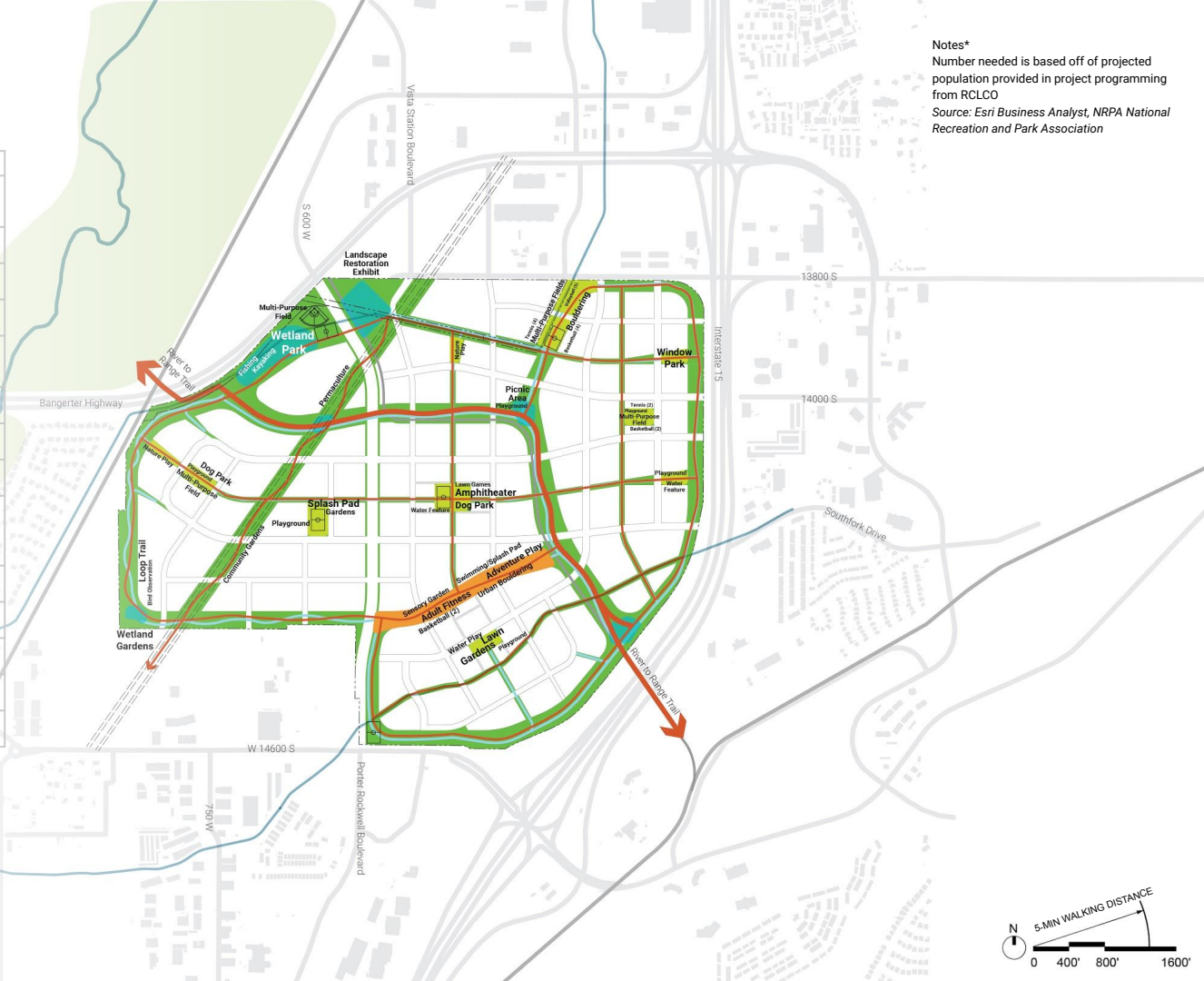


Open Space Program

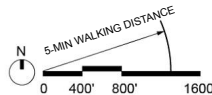
Projected Population: 15,400

PARK AND SPORTS FACILITY	OPTION 1	
	NUMBER OF NEEDED FACILITIES	NUMBER ACCOMMODATED
Playgrounds	8	8
Basketball courts	8	8
Tennis courts	8	8
Baseball/Softball Fields	2	2
Dog Park	1	2
Swimming pools (outdoor only)	2	2
Volleyball	5	5
Soccer/football field	4	4 (2 of fields are in multi-use lawns, and all 4 are junior regulation size)
Skate/ Bicycle parks	0	0
Multi-purpose field	3	4 (2 of fields are soccer/football fields)
Community Gardens	1	1
Recreation centers	0	0
Performance amphitheatres	1	1

- Passive Open Space/Buffer
- Active Programming/Park
- Linear Park
- Recreational Trail
- River to Range Trail



Notes*
 Number needed is based off of projected population provided in project programming from RCLCO
 Source: Esri Business Analyst, NRPA National Recreation and Park Association






Signature Element: **Emerald Necklace Park Network**

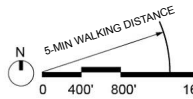
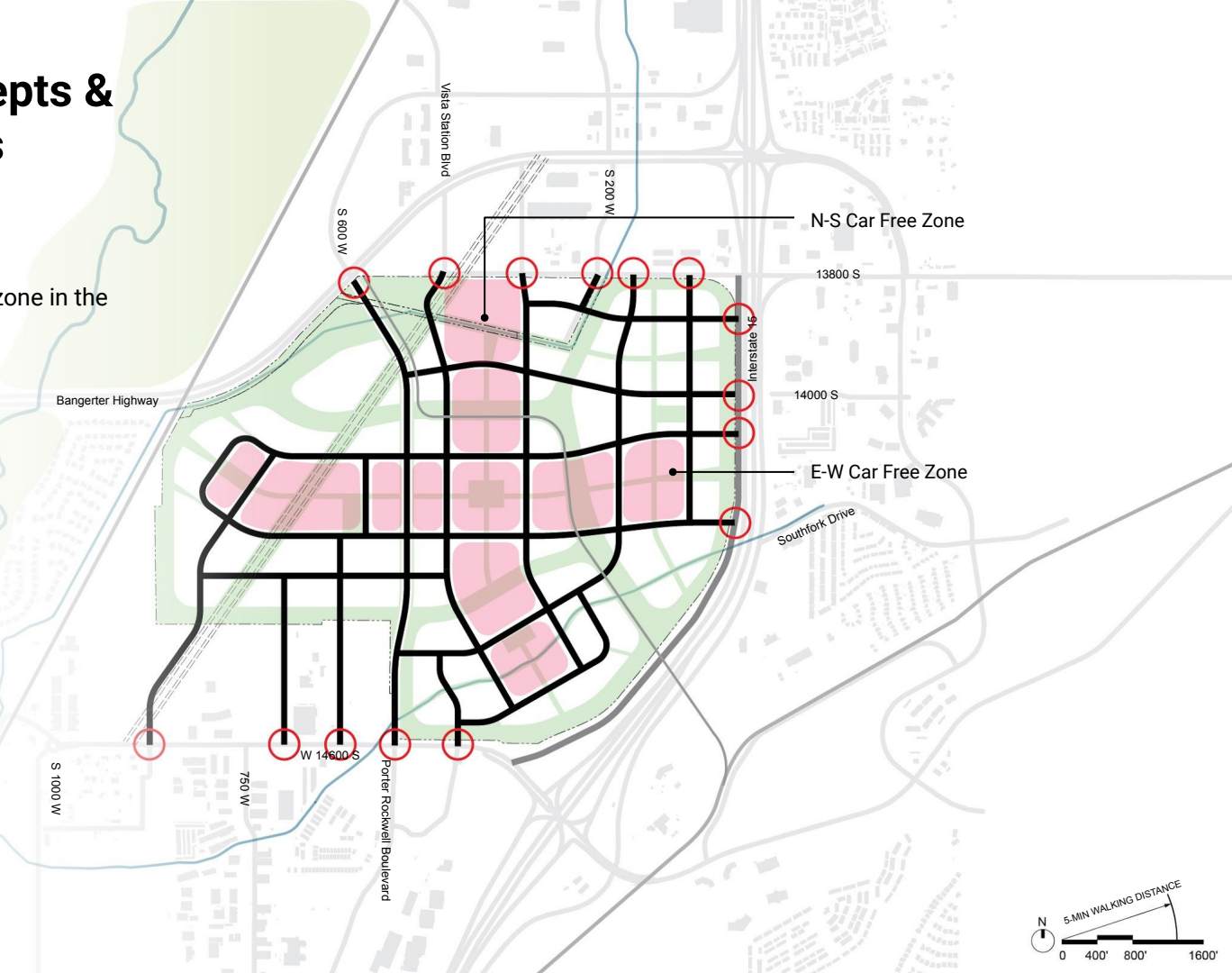


Transportation Concepts & Access Opportunities

Key Elements:

- Created limited/reduced vehicle zone in the project center




-  Car Free Zone
-  Road Network
-  Access Opportunities

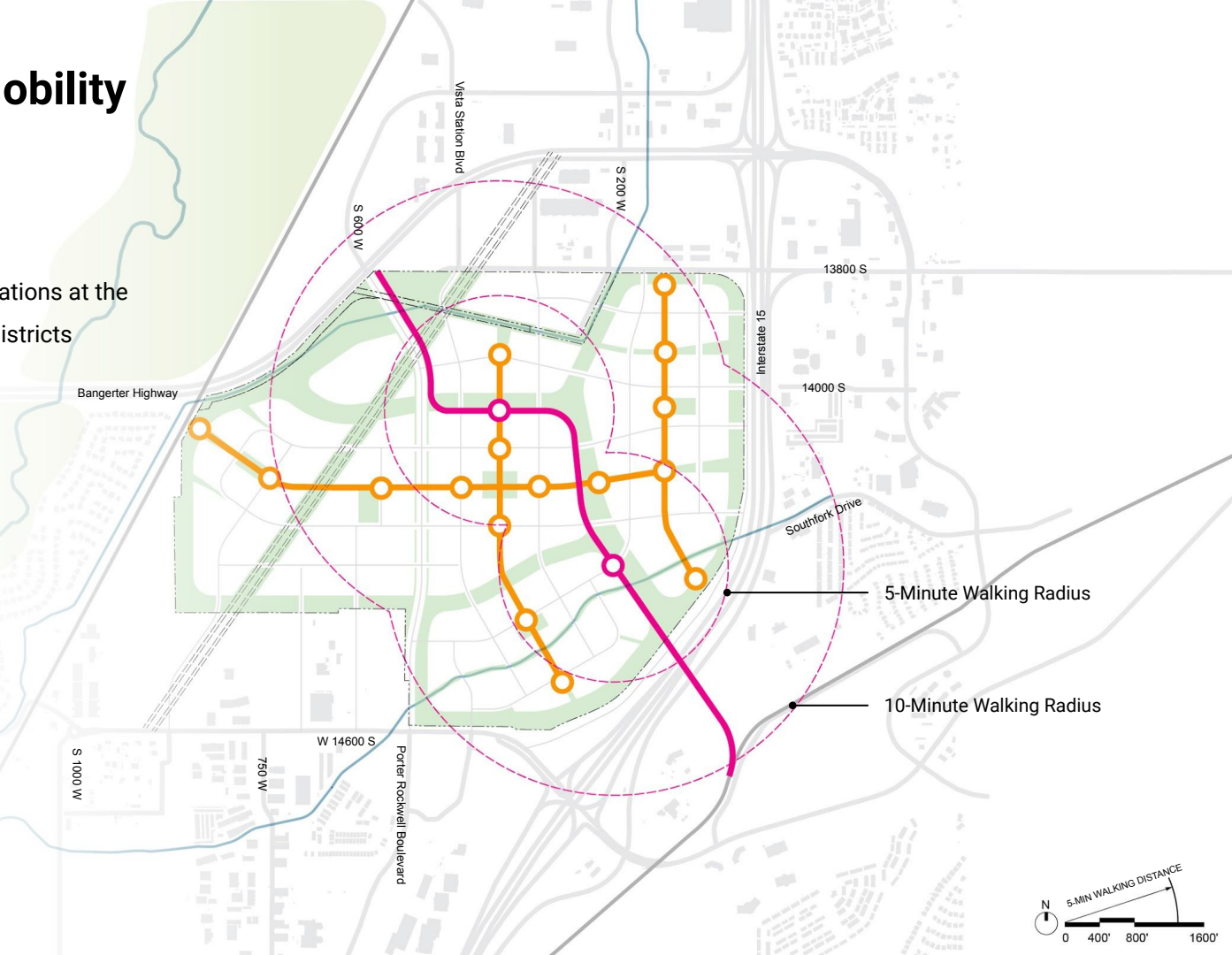


Transit and Micro-Mobility

Key Elements:

- Provide BRT stations at key locations at the project center and near office districts

-  BRT Line
-  BRT Station
-  Neighborhood Electric Vehicle (NEV) Route
-  NEV Stops

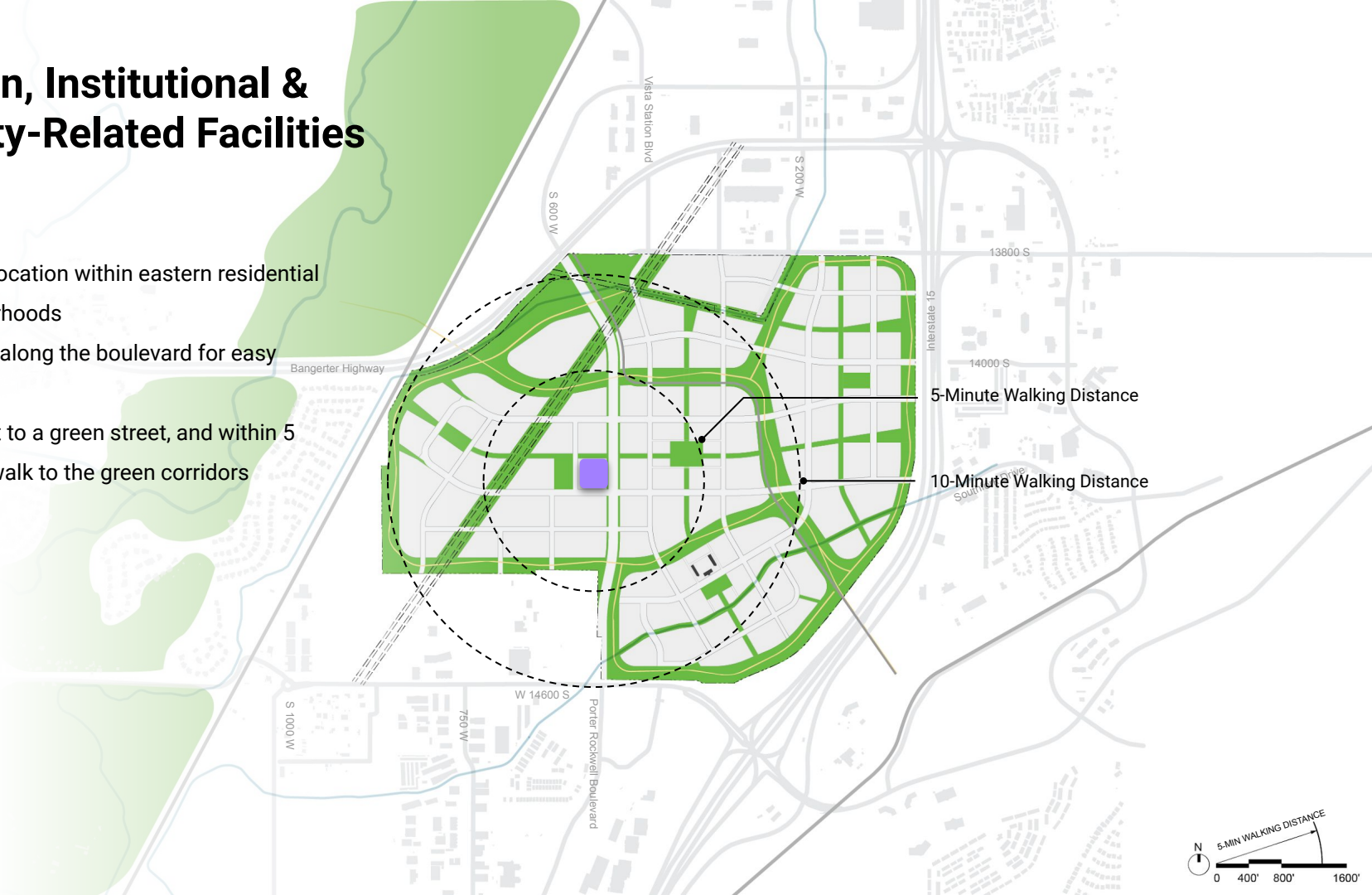


Education, Institutional & University-Related Facilities

Key Elements:

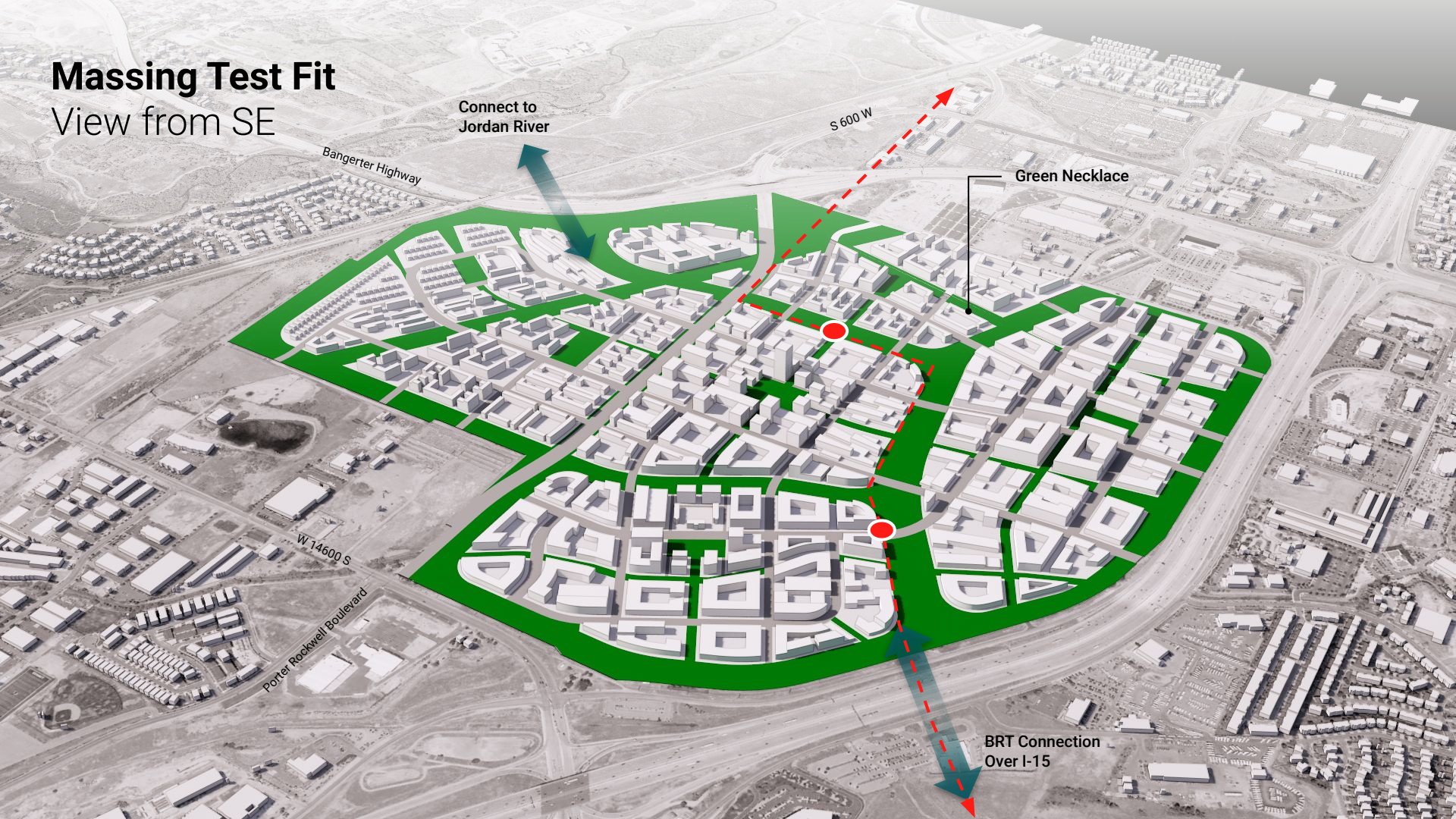
- Central location within eastern residential neighborhoods
- Located along the boulevard for easy access
- Adjacent to a green street, and within 5 minute walk to the green corridors

 School



Massing Test Fit

View from SE



Connect to
Jordan River

S 600 W

Green Necklace

W 14600 S

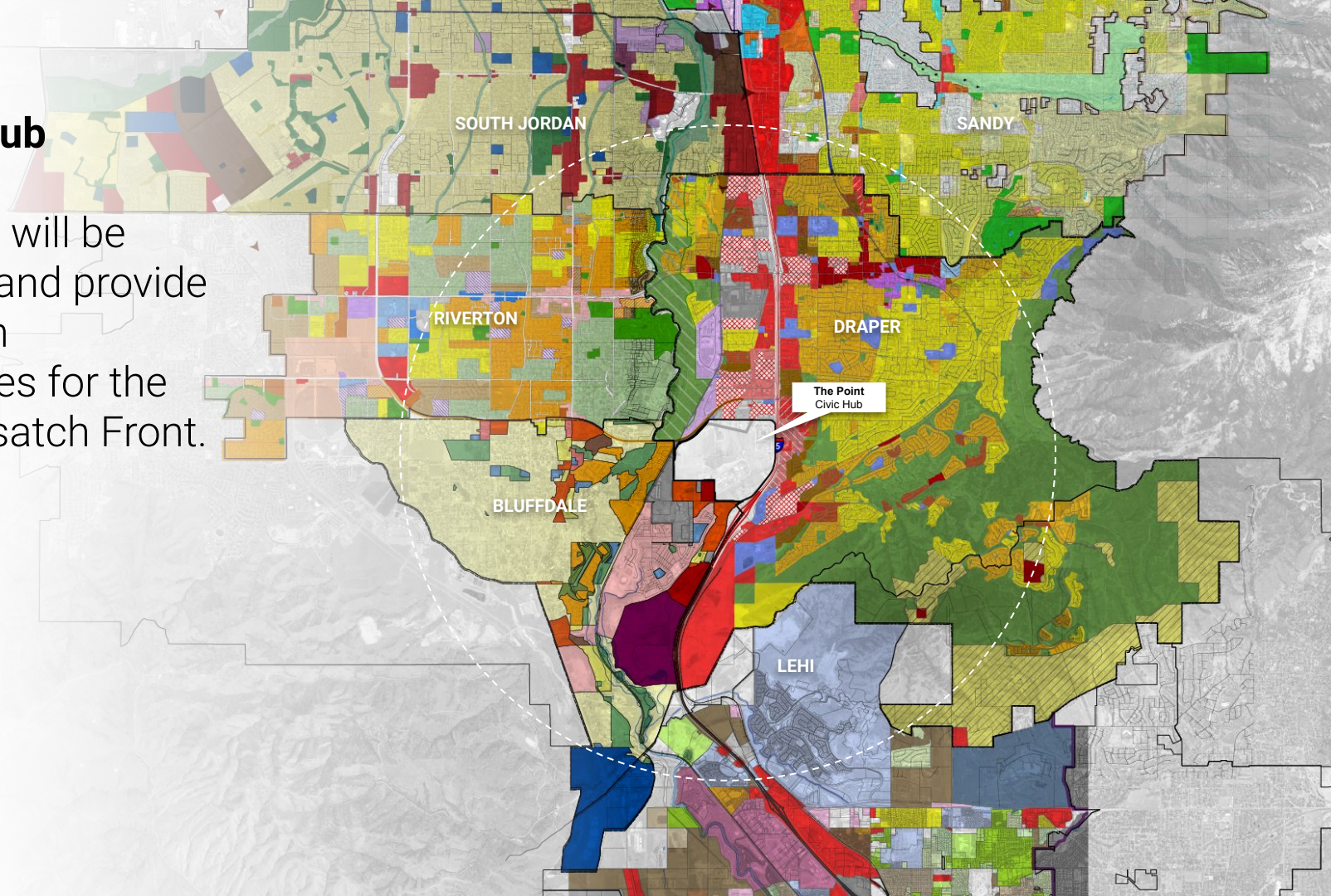
Porter Rockwell Boulevard

BRT Connection
Over I-15

Concept 2: Regional Hub

Concept: Regional Hub

The project will be mixed-use and provide new growth opportunities for the central Wasatch Front.



Components Supporting Key Vision Elements

TRANSIT
Transit provides alternate means of travel for regional visitors and new employees. Small blocks and walkable streets promote walkability

COMMUNITY
Key civic amenities such as entertainment venues and community play fields promotes new types of community affiliations.

ECONOMY
Economic development is enhanced through the creation of strong civic attractors that complement tech and innovation growth.

INNOVATION
50% of development is committed to commercial activity led by the tech and innovation sector.

SUSTAINABILITY
30% open space allows for a major commitment to ecology and wellness.

COLLABORATION
Providing needed civic amenities enhances collaboration between neighboring communities.



REGIONAL HUB

Concept 2: Statistical Summary

	ACREAGE	
CURRENT LAND HOLDINGS	606.0	
CANALS	5.3	
ROAD FRONTAGE	4.5	
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GROSS DEVELOPABLE LAND AREA	596.2	25,970,472 SF
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ROADS, CIVIC & INFRASTRUCTURE	17.2%	104.0
PARKS & OPEN SPACE	28.5%	173.0
NET DEVELOPABLE LAND AREA	54.3%	329.0
		14,331,240 SF

NON-RESIDENTIAL LAND USES	ACREAGE	SF	FAR	PARKING	TOTAL GFA	% NDLA	% GFA	NOTES
COMMERICAL OFFICE	161.7	7,043,560	1.1	30,992	7,747,916	49.1%	51.1%	
INNOVATION OFFICE	0.0							
INSTITUTIONAL / ANCHOR TENANT	0.0	0		0	0	0.0%		
RETAIL / FOOD & BEVERAGE	25.7	1,117,560	0.7	1,565	782,292	7.8%	5.2%	
CIVIC	0.0							
HOTEL	12.4	541,389	0.6	650	324,833	3.8%	2.1%	600 KEYS
MIXED USE	0.0	0		0	0	0.0%		
	199.8			33,206	8,855,041	60.7%	58%	

RESIDENTIAL LAND USES	ACREAGE	UNITS/AC	UNITS	GFA/UNIT		TOTAL GFA	% NDLA	% GFA	NOTES
SINGLE-FAMILY DETACHED	0.0	12.00	0	1,600	0	0	0.0%		FOR SALE
WORK FORCE ATTACHED / 3 STORY GARDEN APTS	15.3	35.00	500	1,000	500	500,000	4.6%	3.3%	RENTAL
ATTACHED / TOWN HOUSES	23.2	18.00	400	1,600	400	640,000	7.1%	4.2%	FOR SALE
CONDOMINIUM	13.2	45.00	550	1,600	275	880,000	4.0%	5.8%	FOR SALE
MULTIFAMILY APARTMENT	75.8	57.50	4,300	1,000	2,150	4,300,000	23.0%	28.3%	RENTAL
	127.5		5750		3,325	6,320,000	38.8%	42%	

TOTALS	327.3			36,531	15,175,041				
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RESIDENTIAL POPULATION **11,500**

NET FAR **1.1**

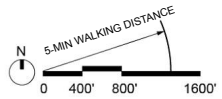
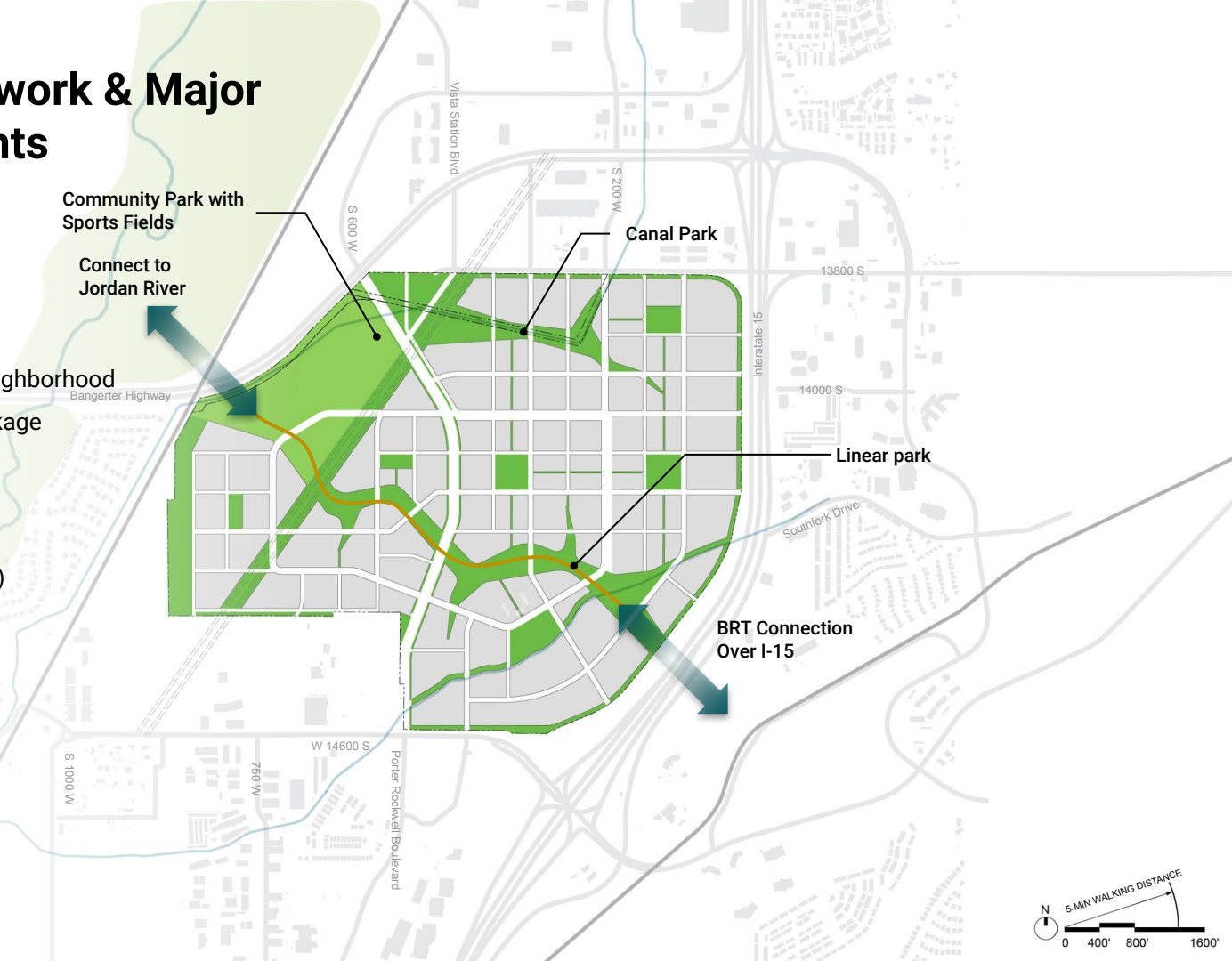
Urban Design Framework & Major Public Realm Elements

Key Elements:

- River to Range Linear Park
- 450' street grid / 400' block
- Neighborhood Parks in each neighborhood with pedestrian/bicycle only linkage
- 30% Open Space Target

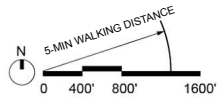
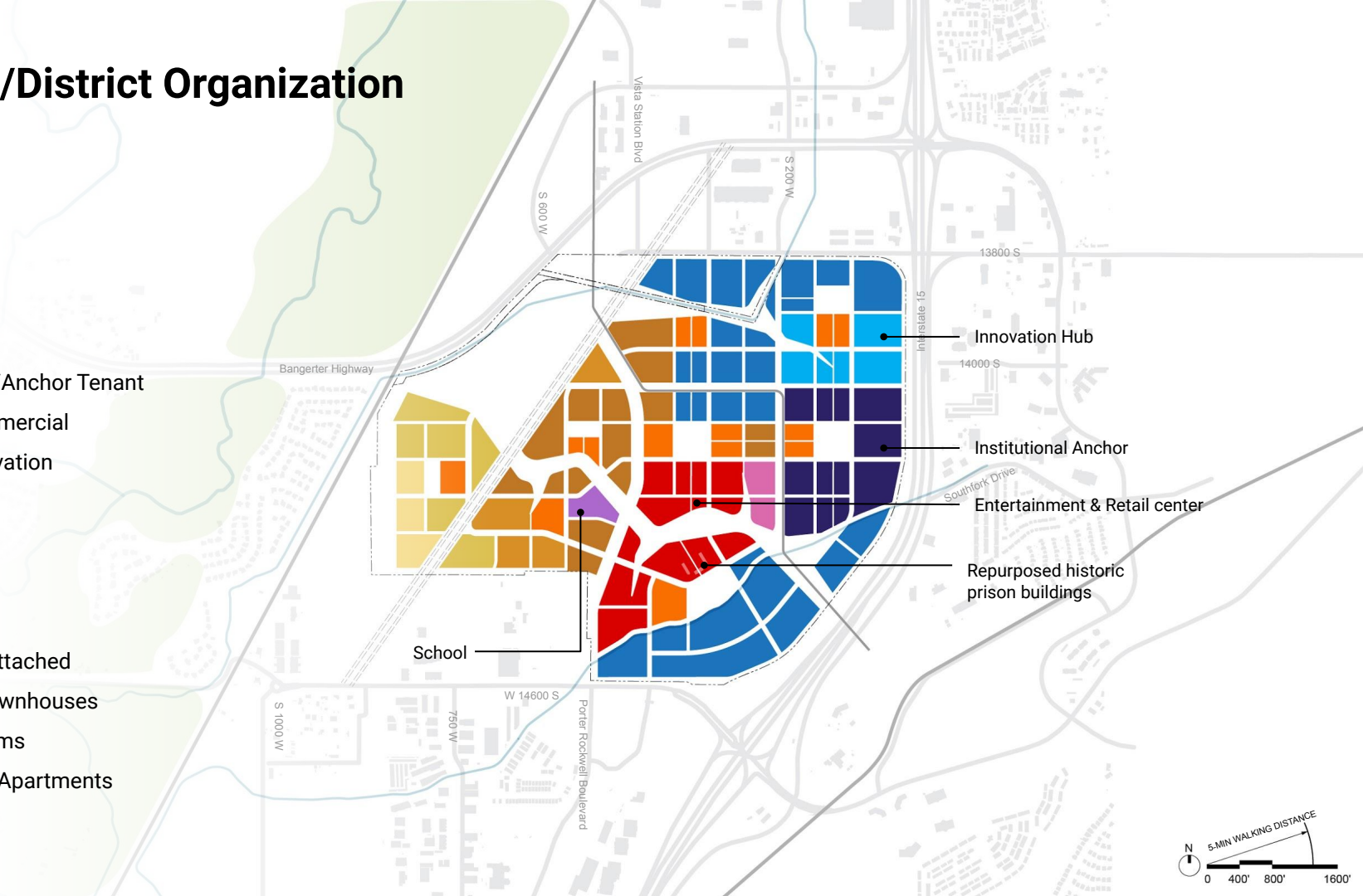
Total Land Area: 606 ac.

- Developable Area: 329 ac. (54%)
- Open Space: 124 ac. (21%)
- Sports Park: 49 ac. (8%)
- Roads: 104 ac. (17%)




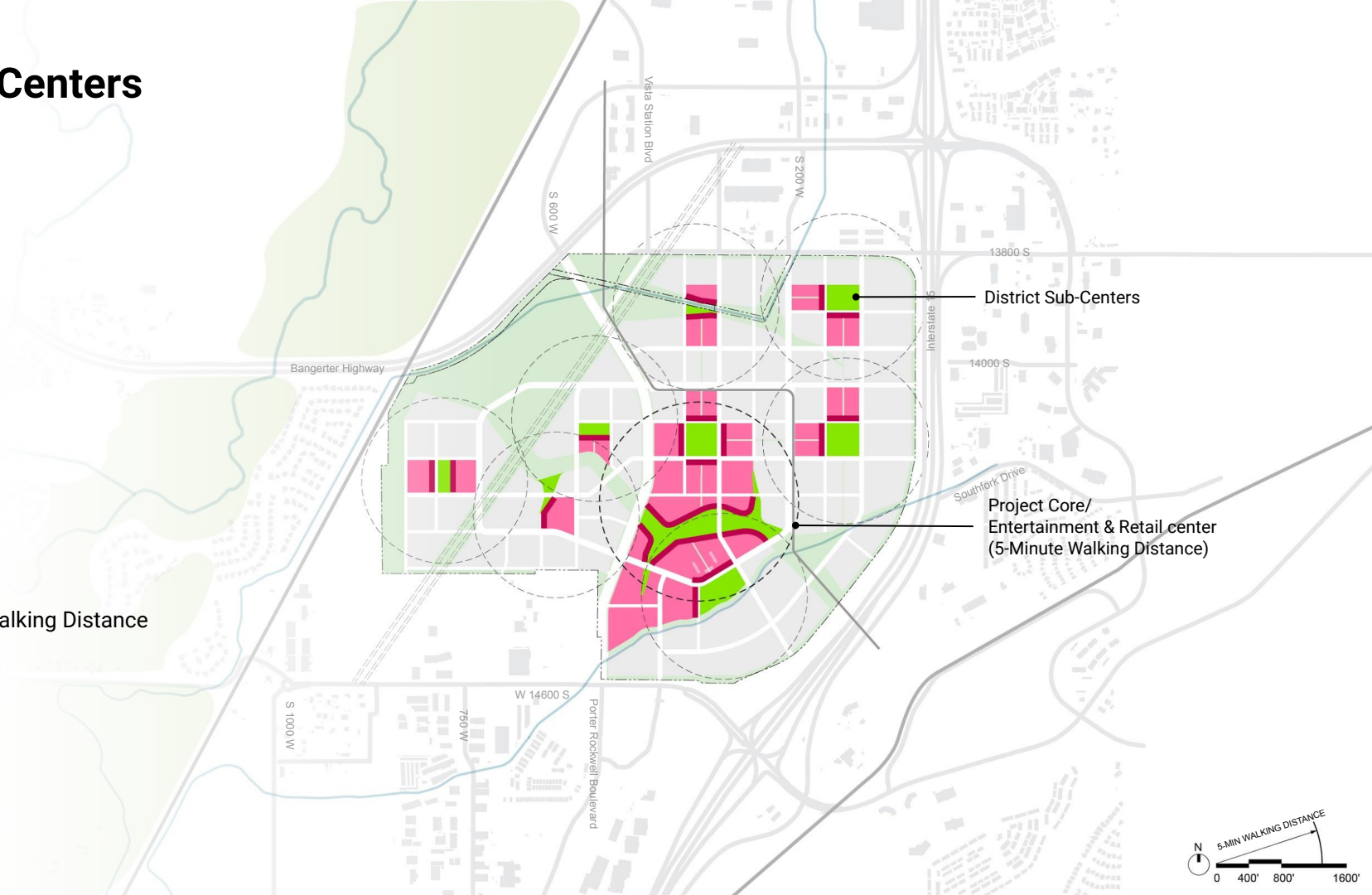
Land Use/District Organization

- Institutional/Anchor Tenant
- Office - Commercial
- Office - Innovation
- Retail
- Hotel
- Civic/School
- Mixed Use
- Workforce Attached
- Attached/Townhouses
- Condominiums
- Multi-family Apartments



Cores & Centers

 4-Minute Walking Distance



District Sub-Centers

Project Core/
Entertainment & Retail center
(5-Minute Walking Distance)



Signature Element: **Entertainment & Retail Center**






Signature Element: **Regional Trail**



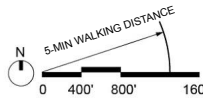
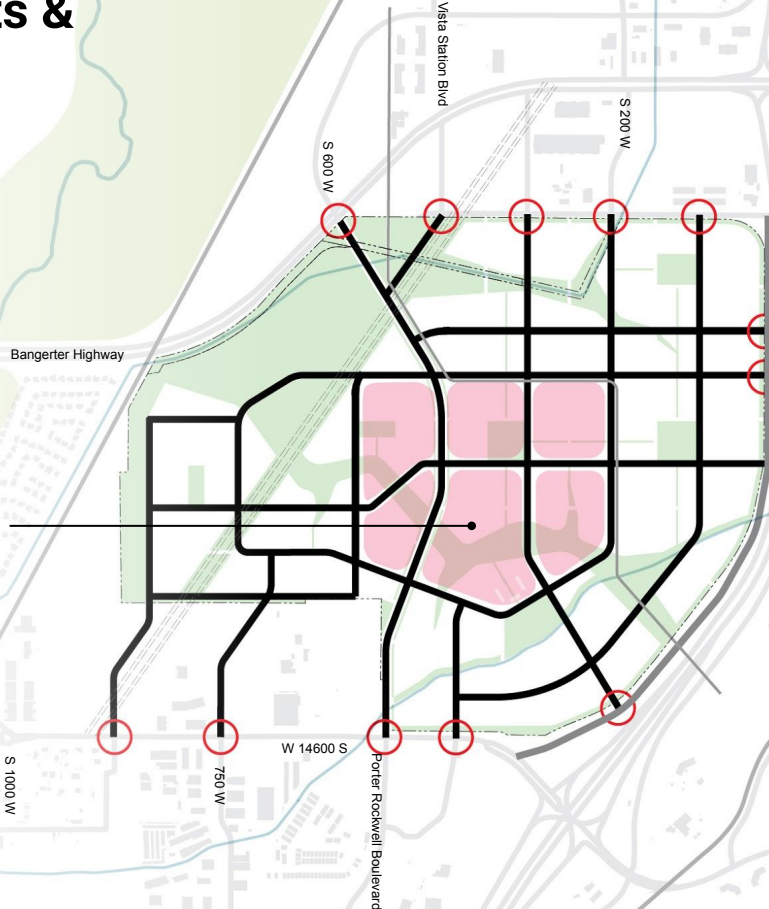
Signature Element: **Urban Parks & Green Links**






Transportation Concepts & Access Opportunities

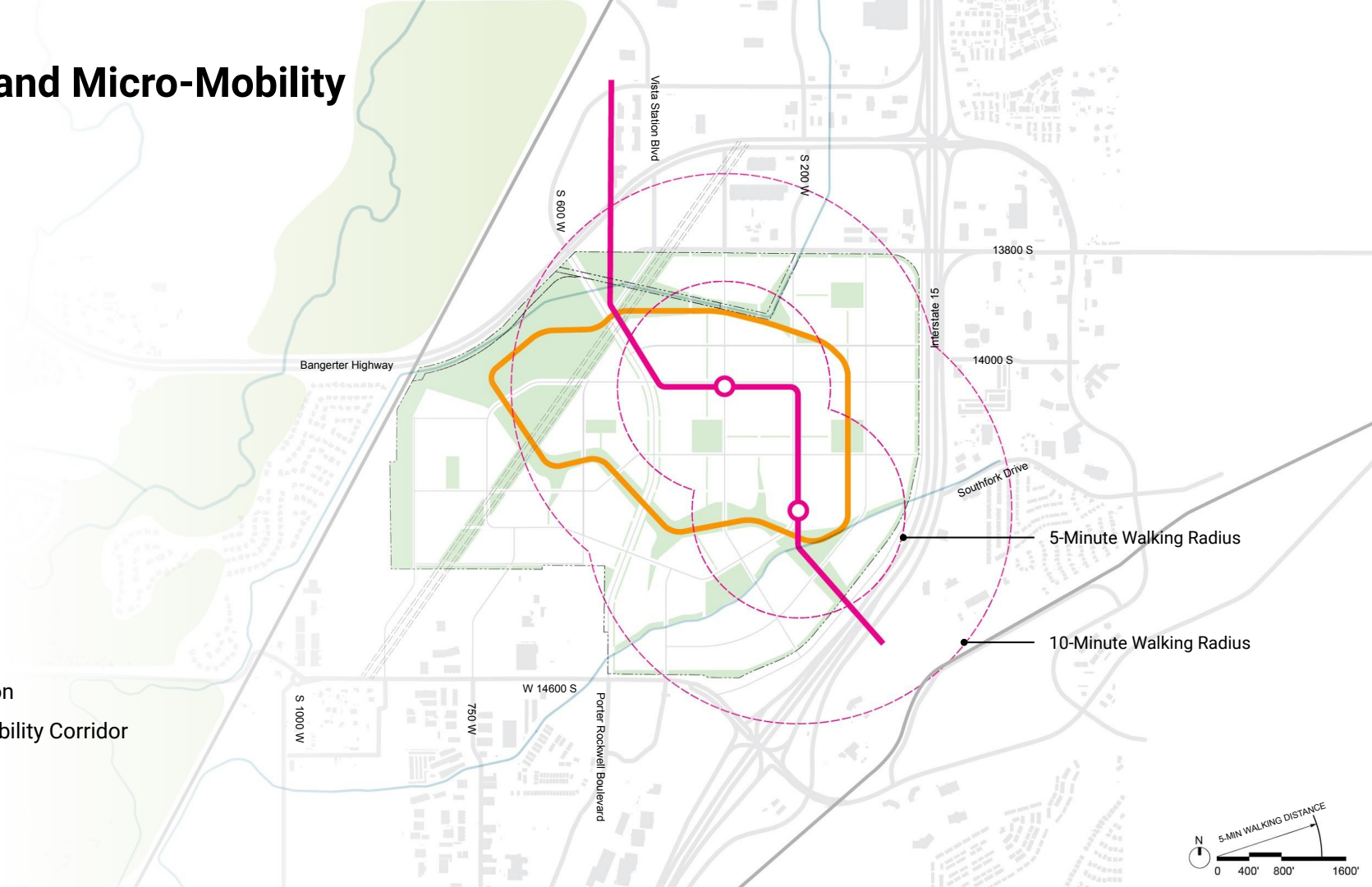
-  Car Free Zone
-  Road Network
-  Access Opportunities

Car Free Entertainment & Retail Center



Transit and Micro-Mobility

-  BRT Line
-  BRT Station
-  Active Mobility Corridor

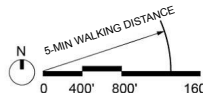


Education, Institutional & University-Related Facilities

Key Elements:

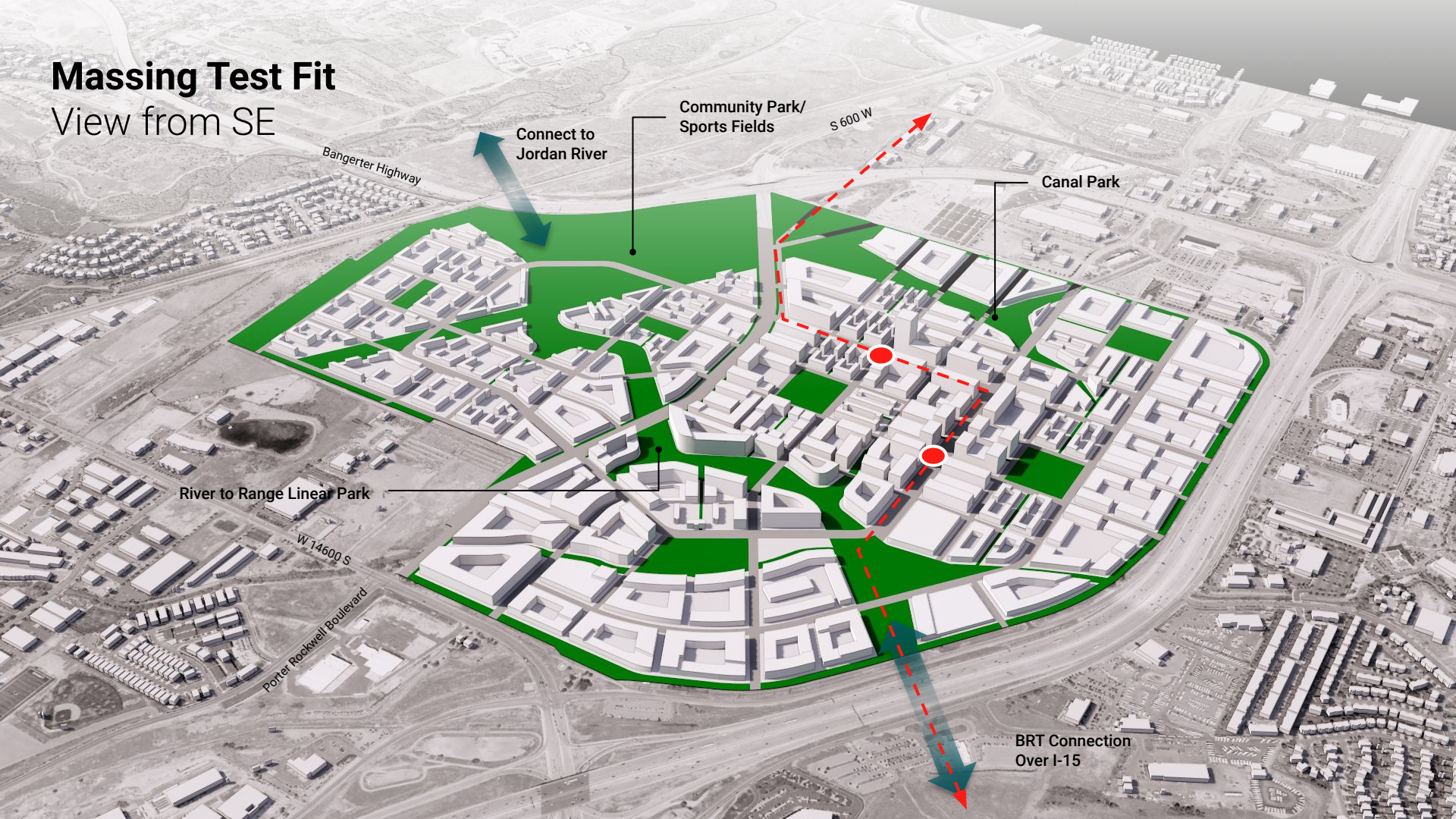
- School adjacent to River to Range Linear Park
- Located along the boulevard and within residential neighborhood for easy access
- Institution located west along I-15 for high visibility

- Institution / Anchor Tenant
- School



Massing Test Fit

View from SE



Connect to Jordan River

Community Park/
Sports Fields

S 600 W

Canal Park

River to Range Linear Park

W 14600 S

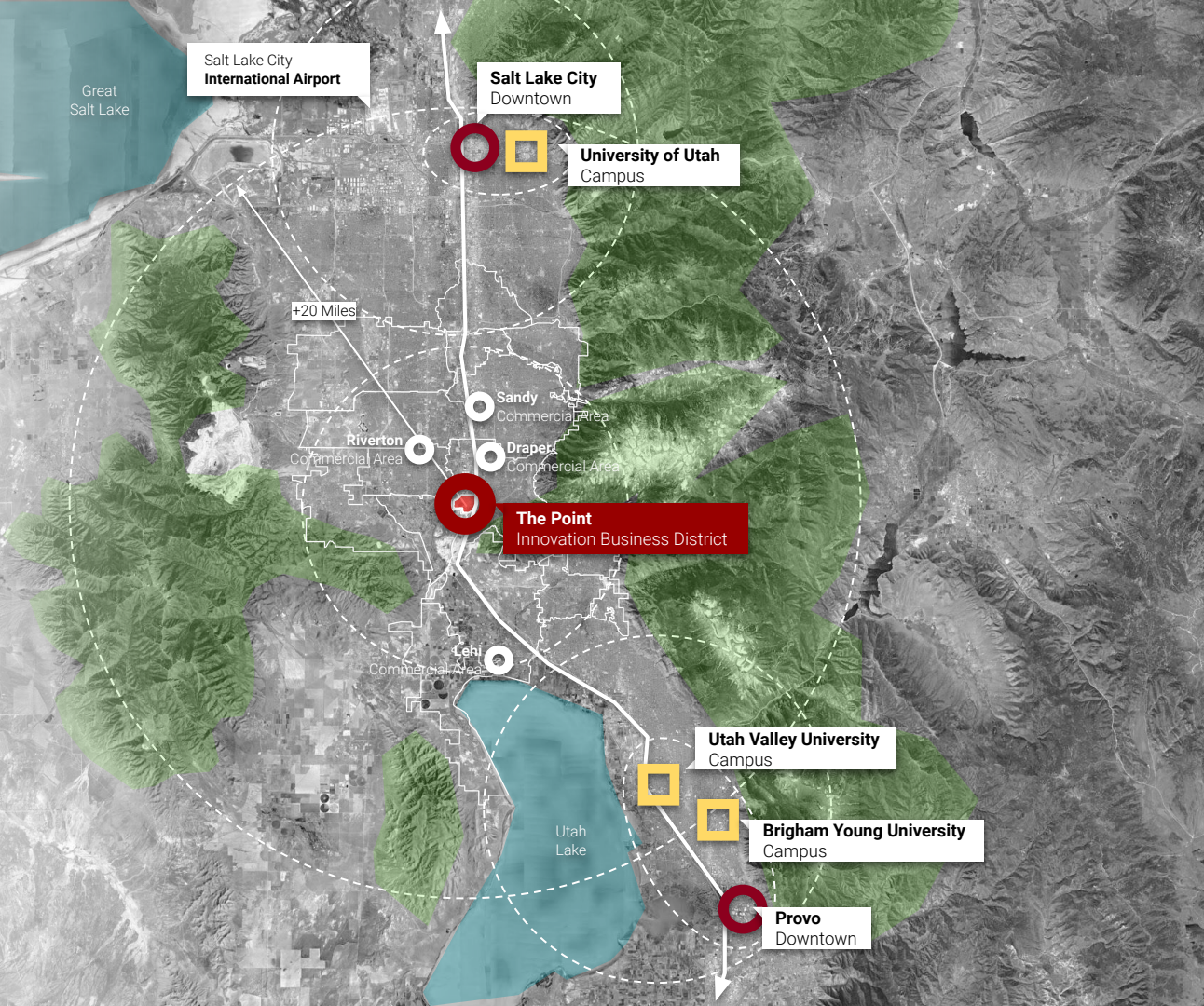
Porter Rockwell Boulevard

BRT Connection
Over I-15

Concept 3: Economic Catalyst

Concept: Economic Catalyst

Create an economic catalyst for the Wasatch Front and the State of Utah.



Components Supporting Key Vision Elements

TRANSIT

Transit provides key commuting linkage all along the Wasatch Front and brings tech workers to site.



COMMUNITY

Community is enhanced by a deep commitment to economic development complemented by supportive residential development.



ECONOMY

Commit to 60% of site as commercial development with commensurate new job creation.



INNOVATION

Introduction of institutional partners and focus on more substantive innovation economies.

ECONOMIC CATALYST



SUSTAINABILITY

Emphasis on energy conservation and building sustainability.



COLLABORATION

Strong economic and innovation commitment with institutional partners fosters strong collaborative ties.

ECONOMIC CATALYST

Statistical Summary: Concept 3

	ACREAGE	
CURRENT LAND HOLDINGS	606.0	
CANALS	5.3	
ROAD FRONTAGE	4.5	
<hr/>		
GROSS DEVELOPABLE LAND AREA	596.2	25,970,472 SF
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ROADS, CIVIC & INFRASTRUCTURE	20.0%	121.2
PARKS & OPEN SPACE	20.0%	121.2
NET DEVELOPABLE LAND AREA	60.0%	363.6
		15,838,416 SF

NON-RESIDENTIAL LAND USES	ACREAGE	SF	FAR	PARKING	TOTAL GFA	% NDLA	% GFA	NOTES
COMMERCIAL OFFICE	175.0	7,625,000	0.8	24,400	6,100,000	48.1%	41.2%	
INNOVATION OFFICE	0.0							
INSTITUTIONAL / ANCHOR TENANT	50.0	2,178,000	0.8	1,742	1,742,400	13.8%	11.8%	
RETAIL / FOOD & BEVERAGE	18.3	796,667	0.6	956	478,000	5.0%	3.2%	
CIVIC	0.0							
HOTEL	13.3	580,800	0.6	700	350,000	3.7%	2.4%	700 KEYS
MIXED USE	0.0	0		0	0	0.0%		
	256.7			27,798	8,670,400	70.6%	59%	

RESIDENTIAL LAND USES	ACREAGE	UNITS/AC	UNITS	GFA/UNIT		TOTAL GFA	% NDLA	% GFA	NOTES
SINGLE-FAMILY DETACHED	0.0	12.00	0	1,600	0	0	0.0%		FOR SALE
WORK FORCE ATTACHED / 3 STORY GARDEN APTS	0.0	35.00	0	1,600	0	0	0.0%		FOR SALE
ATTACHED / TOWN HOUSES	8.3	18.00	150	1,600	150	240,000	2.3%	1.6%	FOR SALE
CONDOMINIUM	12.2	45.00	550	1,600	275	880,000	3.4%	5.9%	FOR SALE
MULTIFAMILY APARTMENT	87.0	57.50	5,000	1,000	2,500	5,000,000	23.9%	33.8%	RENTAL
	107.5		5700		2,925	6,120,000	29.6%	41%	

TOTALS	364.2				30,723	14,790,400			
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RESIDENTIAL POPULATION **11,400**

NET FAR **0.9**

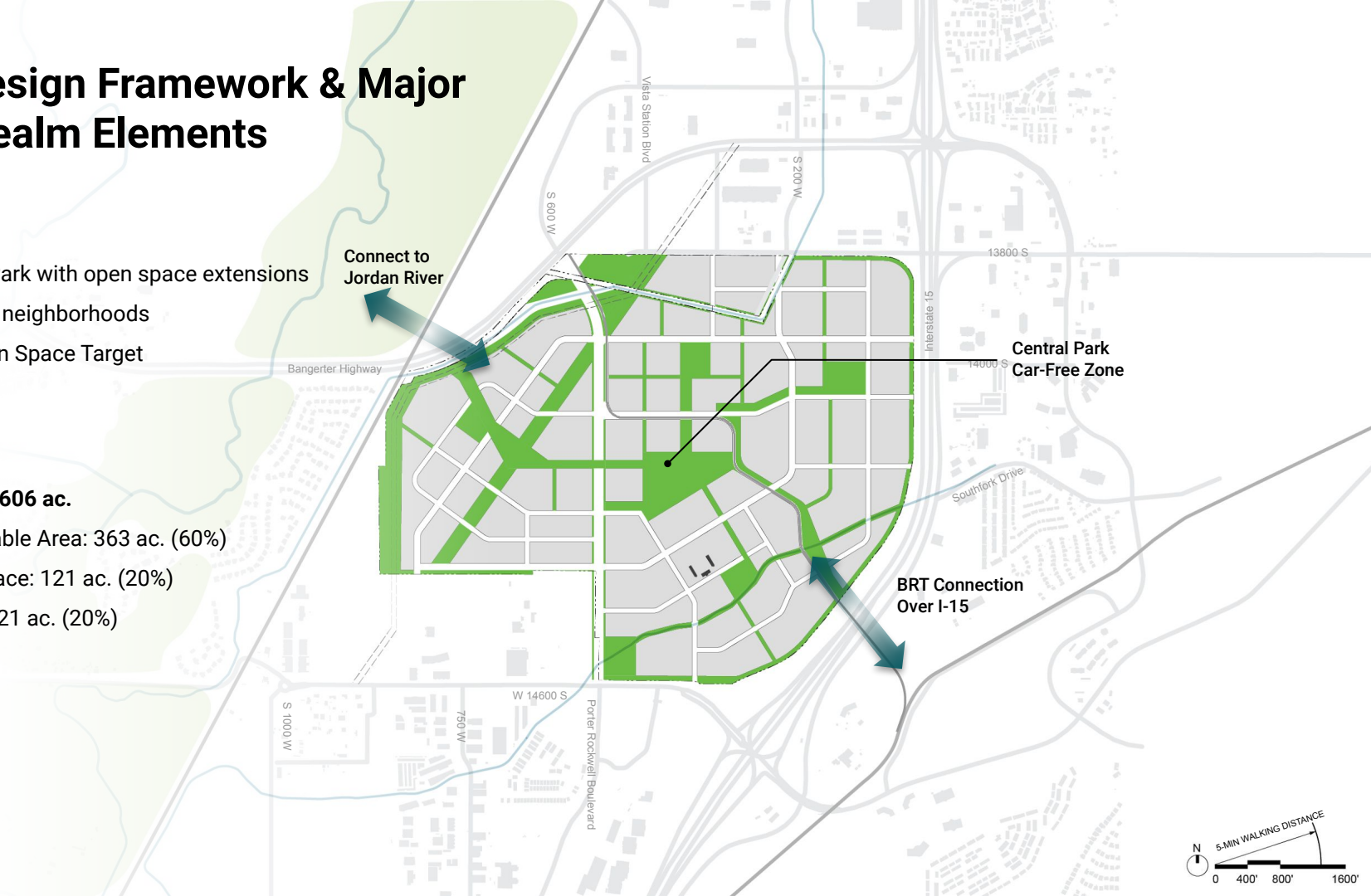
Urban Design Framework & Major Public Realm Elements

Key Elements:

- Central Park with open space extensions out to all neighborhoods
- 20% Open Space Target

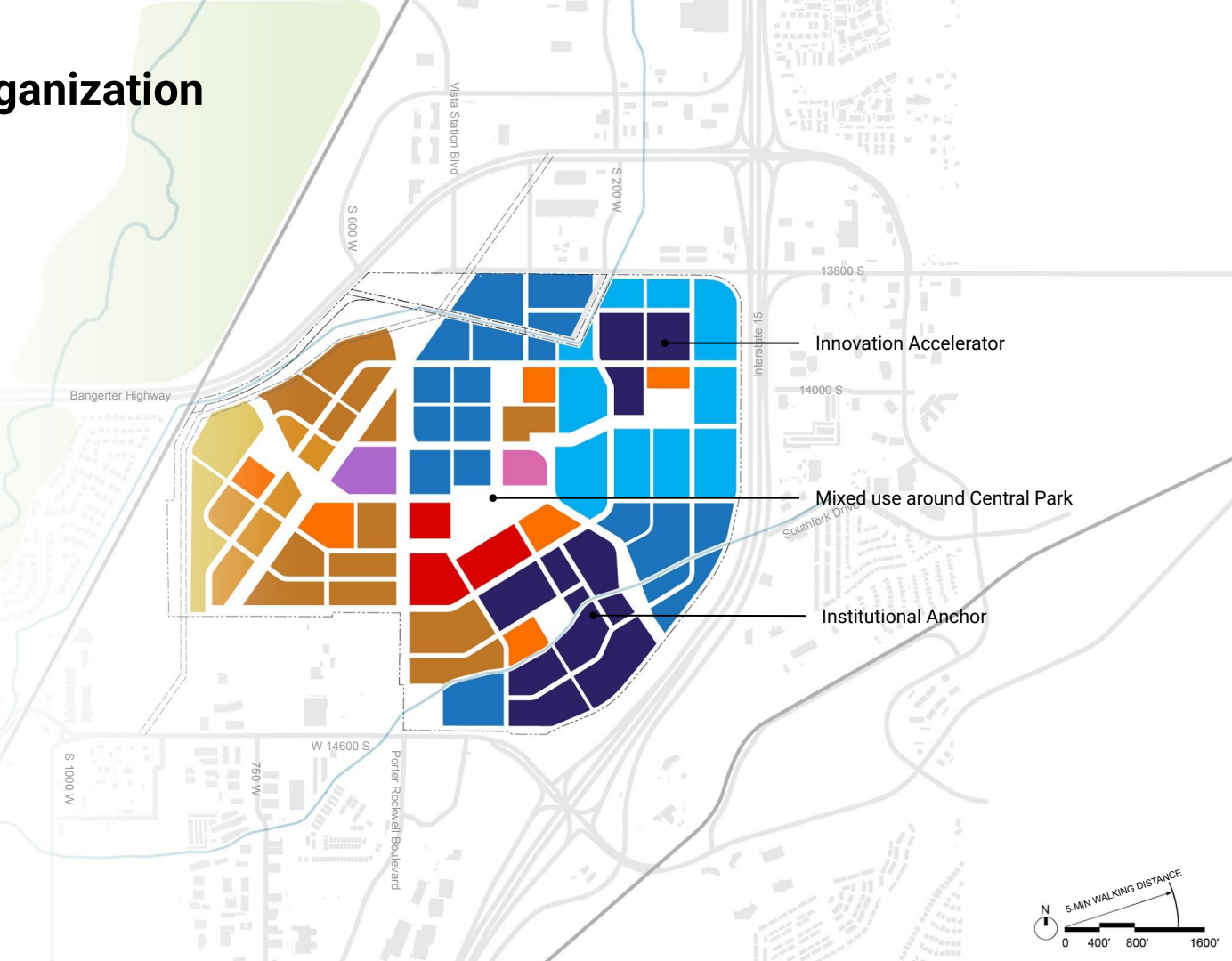
Total Land Area: 606 ac.

- Developable Area: 363 ac. (60%)
- Open Space: 121 ac. (20%)
- Roads: 121 ac. (20%)



Land Use/District Organization

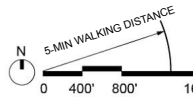
- Institutional/Anchor Tenant
- Office - Commercial
- Office - Innovation
- Retail Core
- Hotel
- Civic/School
- Mixed Use
- Workforce Attached
- Attached/Townhouses
- Condominiums
- Multi-family Apartments



Innovation Accelerator

Mixed use around Central Park

Institutional Anchor

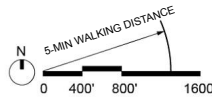
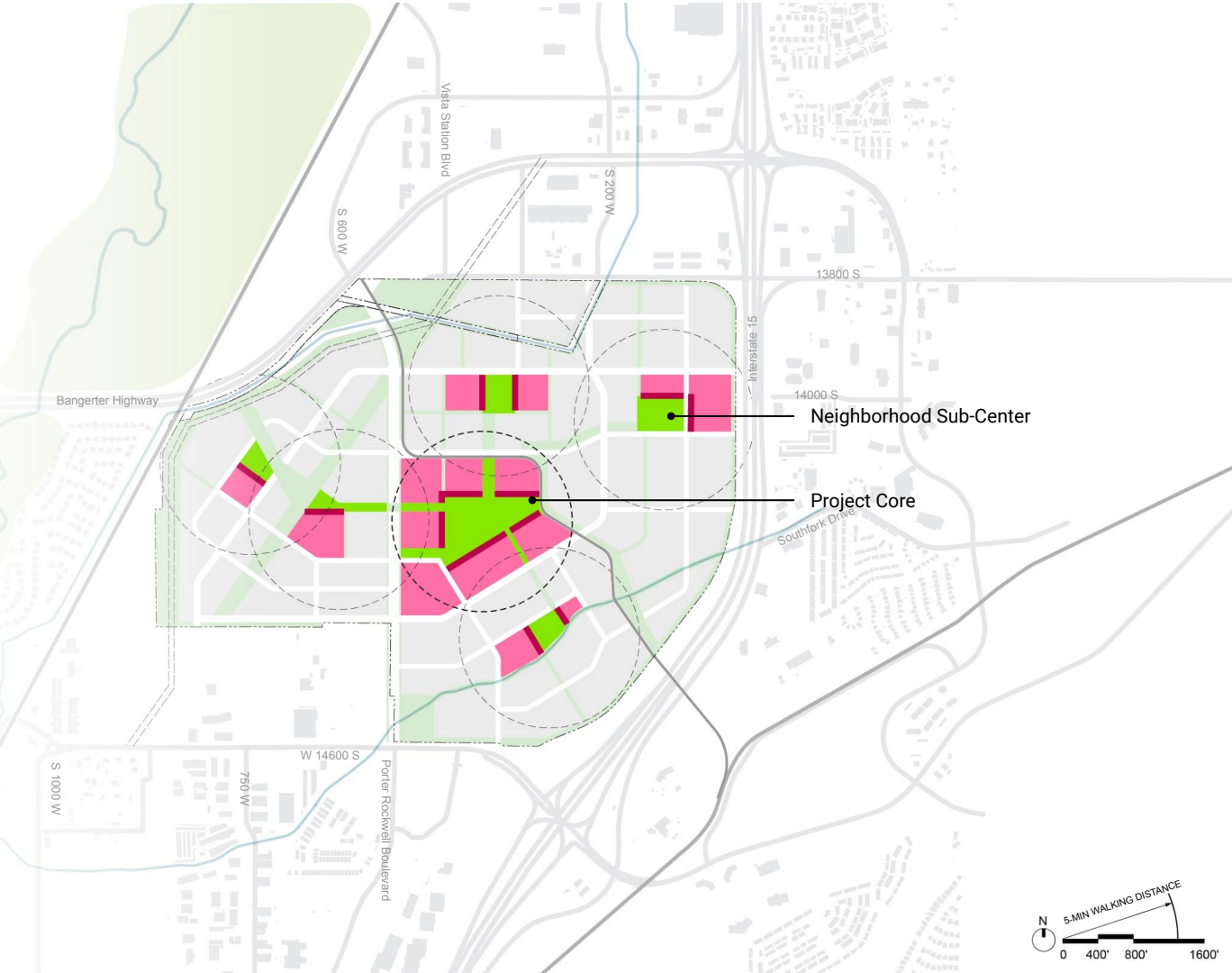


Signature Element: **Institutional Partners**



Cores & Centers

 4-Minute Walking Distance



Signature Element: **“The Hive”**
School, Incubator, Social Hub + Lecture Hall



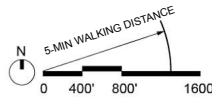
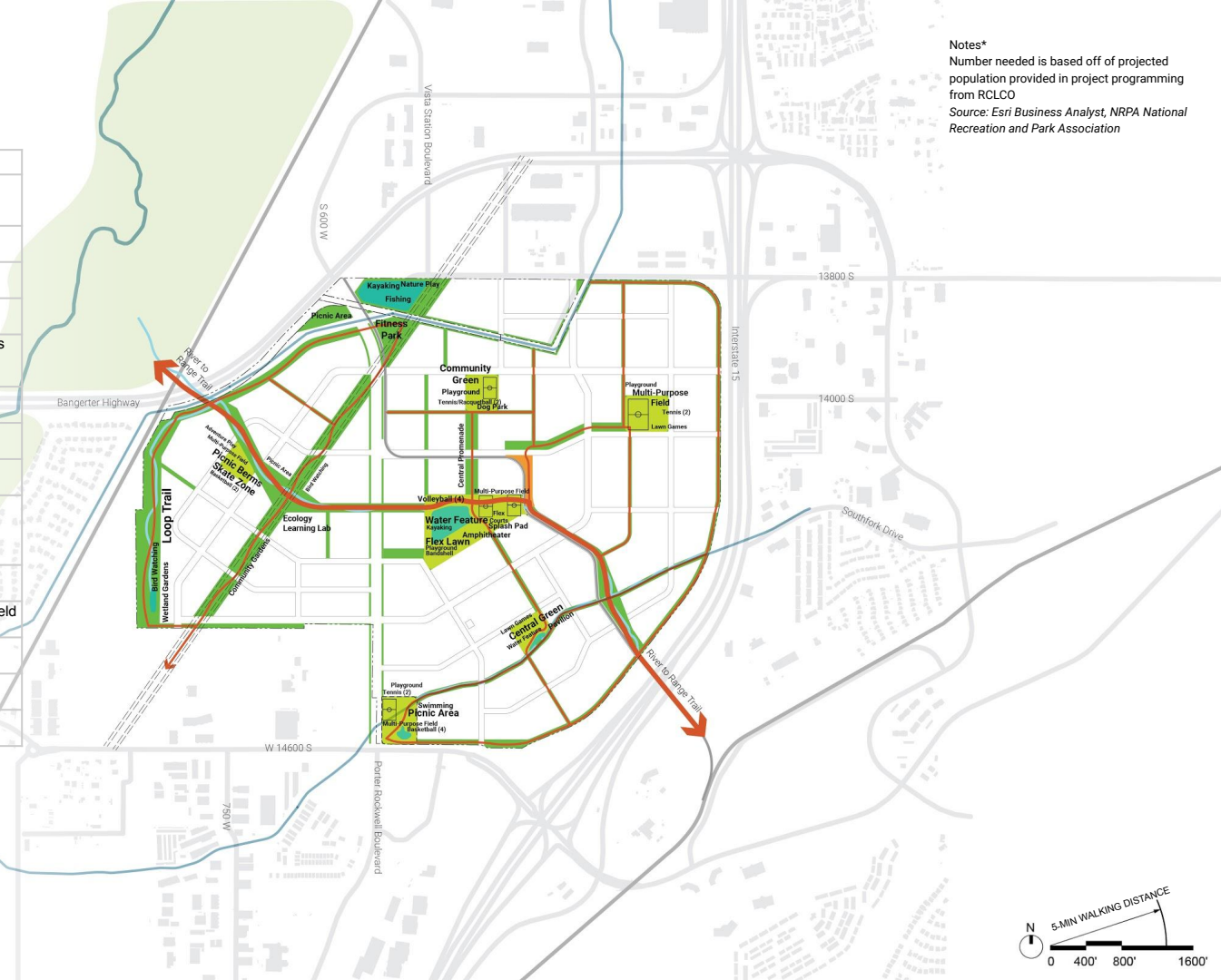
Open Space Program

Projected Population: 11,400

Notes*
 Number needed is based off of projected population provided in project programming from RCLCO
 Source: Esri Business Analyst, NRPA National Recreation and Park Association

PARK AND SPORTS FACILITY	OPTION 3	
	NUMBER OF NEEDED FACILITIES	NUMBER ACCOMMODATED
Playgrounds	6	6
Basketball courts	6	6
Tennis courts	6	6
Baseball/Softball Fields	1	1 (In multi-use lawns and are junior regulation size)
Dog Park	1	1
Swimming pools (outdoor only)	1	1
Volleyball	4	4
Soccer/football field	3	3 (3 of fields are in multi-use lawns and are junior regulation size)
Skate/ Bicycle parks	0	1
Multi-purpose field	2	3 (soccer/football field and baseball fields)
Community Gardens	1	1
Recreation centers	0	0
Performance amphitheatres	1	1

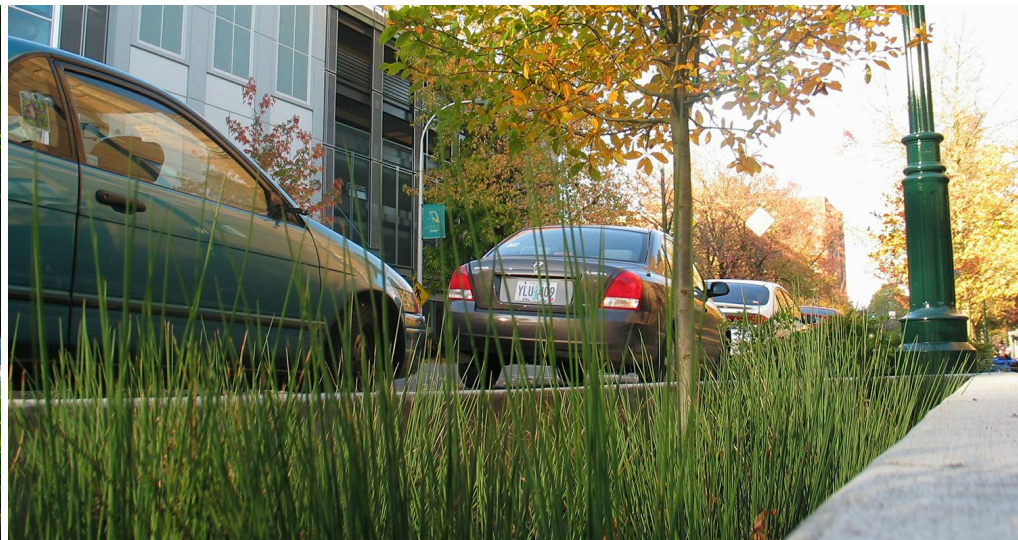
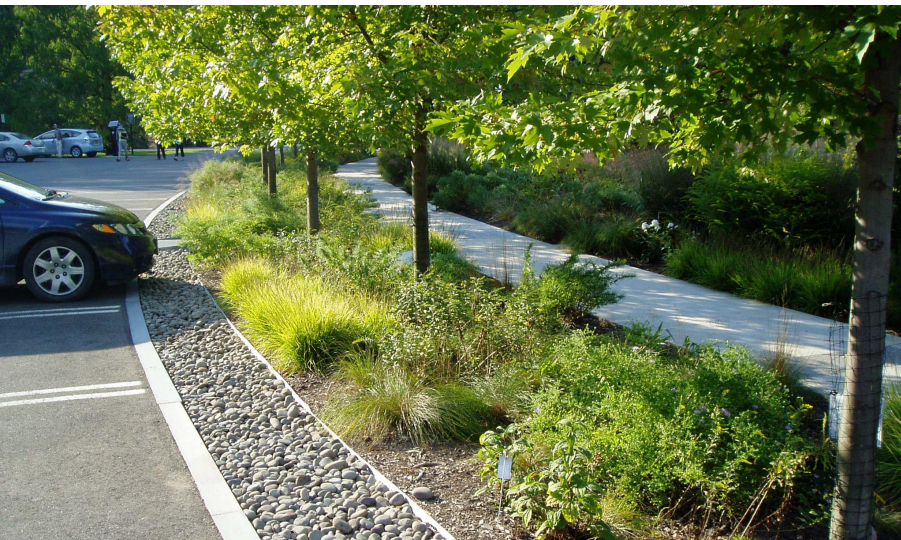
- Passive Open Space/Buffer
- Active Programming/Park
- Sports Park
- Recreational Trail
- River to Range Trail



Signature Element: **Central Park**



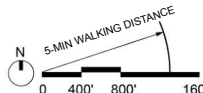
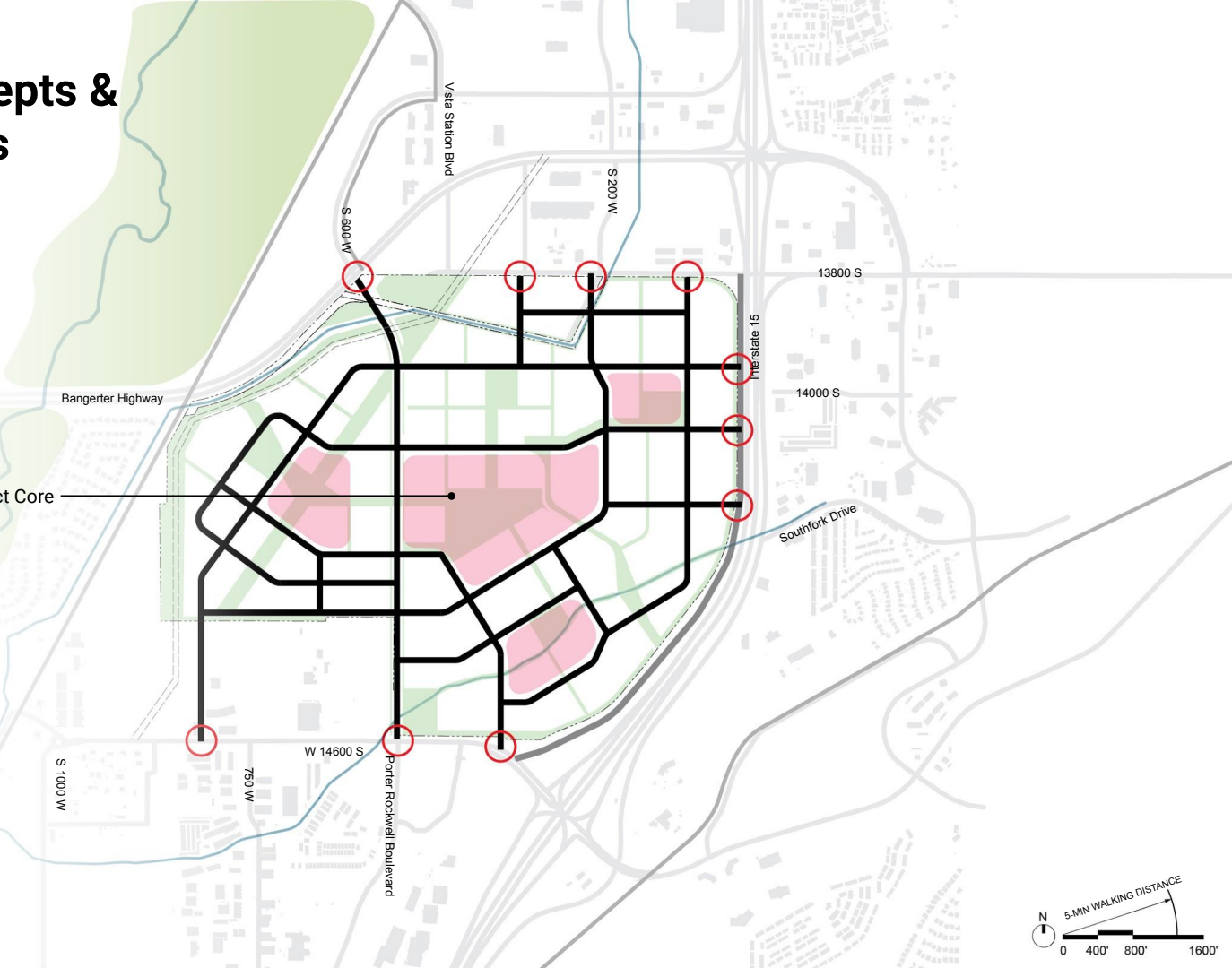
Signature Element: **Green Infrastructure**



Transportation Concepts & Access Opportunities

Car Free Project Core

- Car Free Zone
- Road Network
- Access Opportunities



Signature Element: **Car Free Zone**

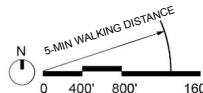
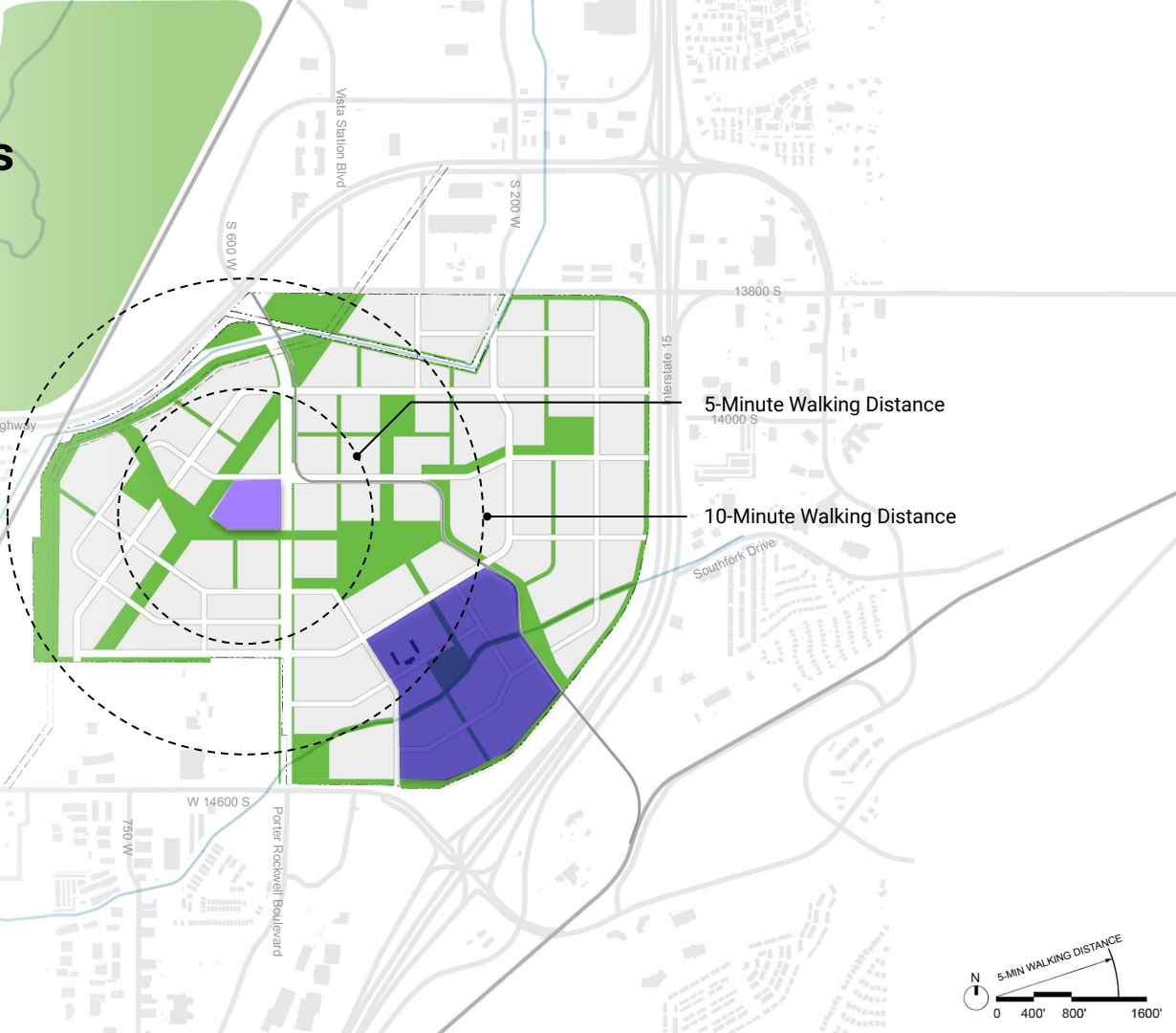


Education, Institutional & University-Related Facilities

Key Elements:

- Adjacent to Green Spine
- Close proximity to innovation offices for potential vocational education
- Located along the boulevard and within residential neighborhood for easy access
- Institution located in high visibility location and easy access from highway

- Institution / Anchor Tenant
- School

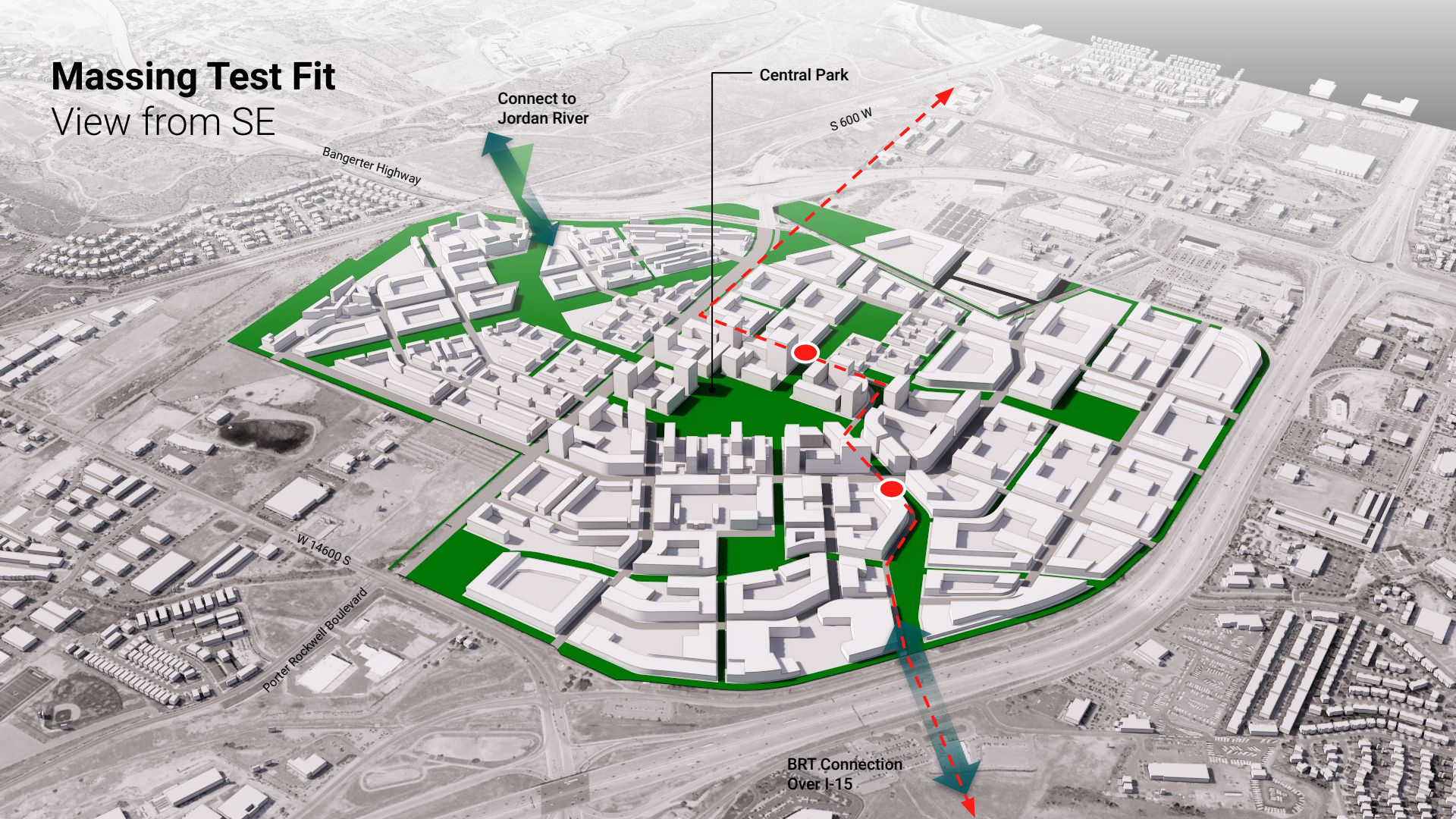


Signature Element: **Institution/Anchor Tenant**



Massing Test Fit

View from SE



Connect to
Jordan River

Central Park

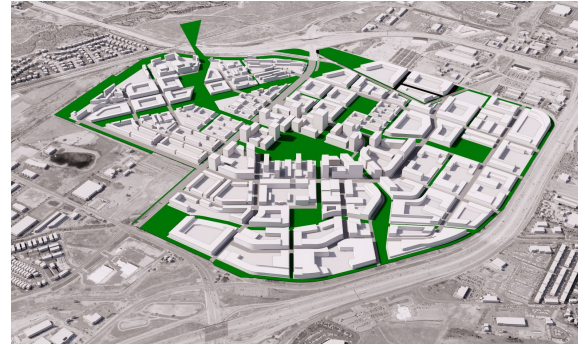
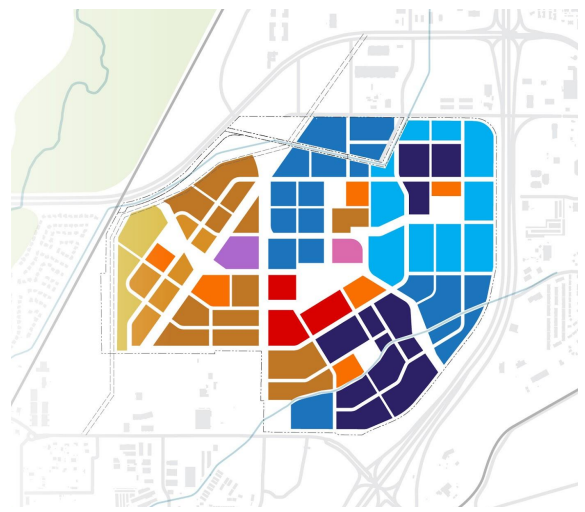
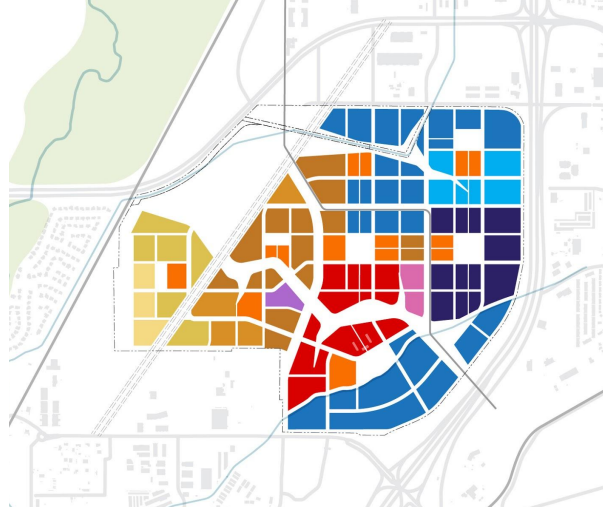
S 600 W

Bangerter Highway

W 14600 S

Porter Rockwell Boulevard

BRT Connection
Over I-15



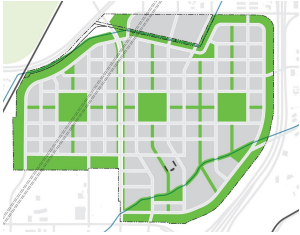
Concept 1: **Complete Community**

Concept 2: **Regional Hub**

Concept 3: **Economic Catalyst**

5. Evaluation Matrix / Methodology

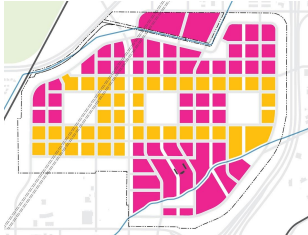
Evaluation Process



1- Develop Framework Plans

Variables:

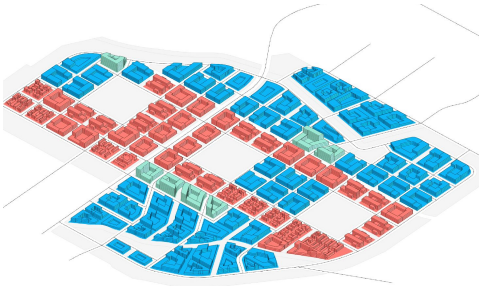
- Development Area
- Road Area
- Open Space



2- Assign Planning Parameters

Variables:

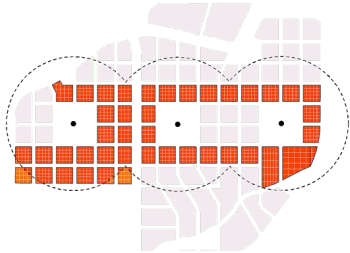
- Density
- Land Use
- Transit



3- Generate Building Options

Variables:

- Building Type
- Building Size
- Building Height
- Building Orientation
- Parcel Size



4- Perform Analytics

Studies:

- Access to Open Space
- Access to Transit
- Residential Proximity to Mixed-Use Hubs
- Land Use & Density
- Cost of Development

25 Evaluation Categories

				Conceptual Scoring			
				Low	Medium	High	
Key Vision Element	Evaluation Criteria	Metric	Source	1	2	3	
T1	TRANSPORTATION	Daily External Car Trips	Trips	Hales	Most	Middle	Least
T2		Intersection Density	Quantity	SS	Least	Middle	Most
T3		Daily Internal Capture	Percentage	Hales	Least	Middle	Most
T4		Car-Free Zones	Quantity	SOM	Least	Middle	Most
T5		Access to BRT Stations	Proximity	SOM	Least	Most	Middle
C1	COMMUNITY	Access to Retail	Proximity	SOM	Middle	Most	Least
C2		Jobs/Housing Balance	Proportion	SOM	Worst	Middle	Best
C3		Access to District Centers	Proximity	SOM	Farthest	Middle	Closest
C4		Distance to Project Center	Distance	SOM	Farthest	Middle	Closest
C5		Culture & Entertainment Attractors	Quantity	SOM	Least	Middle	Most
S1	SUSTAINABILITY	Solar Access	Quantity	SOM	Least	Middle	Most
S2		Daylight Access	Quantity	SOM	Least	Most	Middle
S3		Regional Vehicle Miles Travelled (VMT)	Miles	Hales	Most	Middle	Least
S4		Stormwater & Green Infrastructure	Capacity	DW	Least	Middle	Most
S5		Pedestrian and Bicycle Connectivity	Distance	SS	Least	Middle	Most
OS 1	OPEN SPACE	Distance to Open Space	Distance	SOM	Most	Middle	Least
OS 2		Open Space Programming	Variety	DW	Least	Middle	Most
OS 3		Trails Connectivity	Length	DW	Least	Middle	Most
OS 4		Ecology & Biodiversity Potential	Quality	DW	Least	Middle	Most
OS 5		Proximity to Open Space	% of parcel	SOM	Most	Middle	Least
E1	ECONOMY	Cost of Tranche 2 Elements	Cost	SOM	Least	Middle	Most
E2		Parcel Frontage on Open Space	Lin Ft.	SOM	Least	Middle	Most
E3		Residential Quantity & Variety	Quantity	SOM	Least	Middle	Most
E4		Institutional Capacity	Quantity	SOM	Least	Middle	Most
E5		Office Quantity & Variety	Quantity	SOM	Least	Middle	Most

5.1 Transportation Evaluation Criteria

Criteria T1: Daily External Car Trips

Takeaway: Having a balanced land use mix reduces external car trips and minimizes air pollution.



1: Complete Community *

86,150

daily external car trips



2: Regional Hub

105,723

daily external car trips



3: Economic Catalyst

107,792

daily external car trips

Less Trips by Zone



More Trips by Zone

Criteria T2: Intersection Density

Takeaway: Having more intersections increases connectivity and porosity of the development.



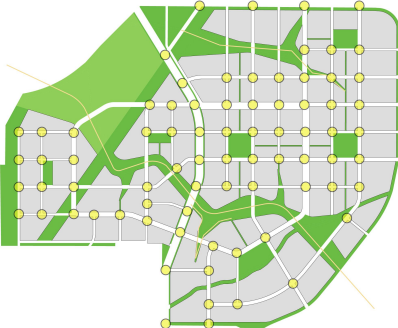
1: Complete Community

Street intersections: **40**

Intersection Density

(intersections/ sq. mile net developable area):

76.9



2: Regional Hub *

Street intersections: **77**

Intersection Density

(intersections/ sq. mile net developable area):

149.8



3: Economic Catalyst

Street intersections: **35**

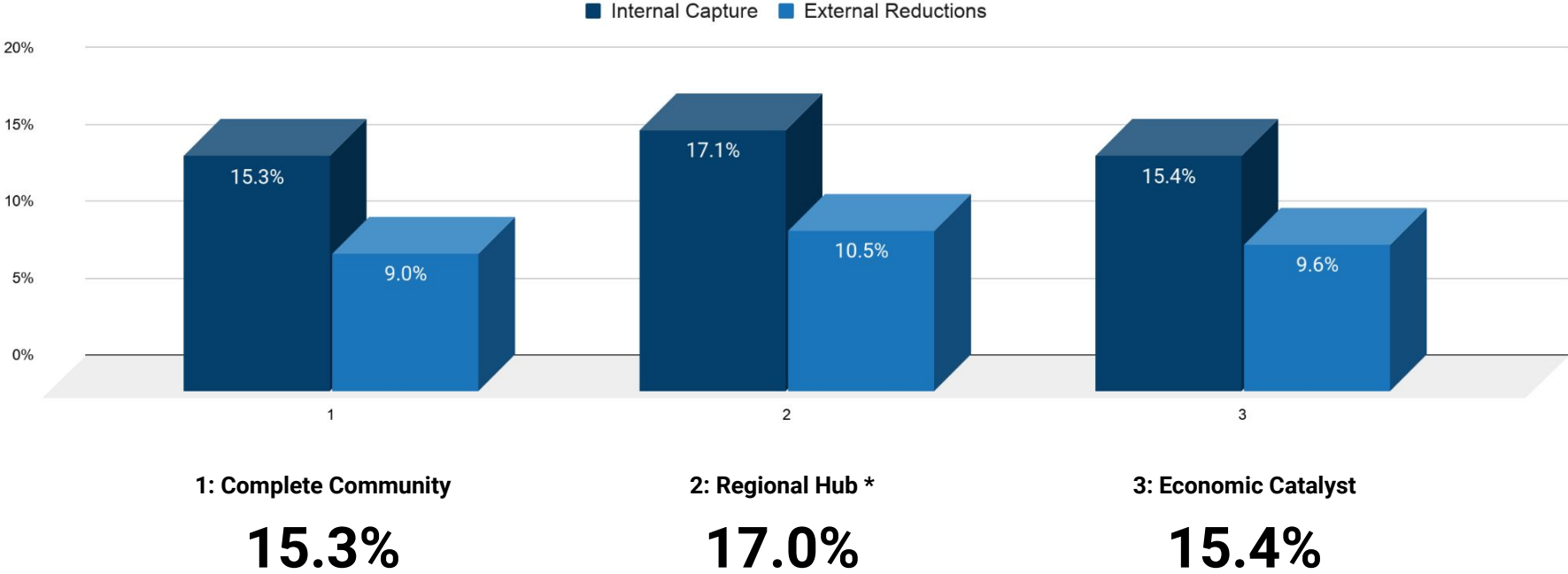
Intersection Density

(intersections/ sq. mile net developable area):

61.7

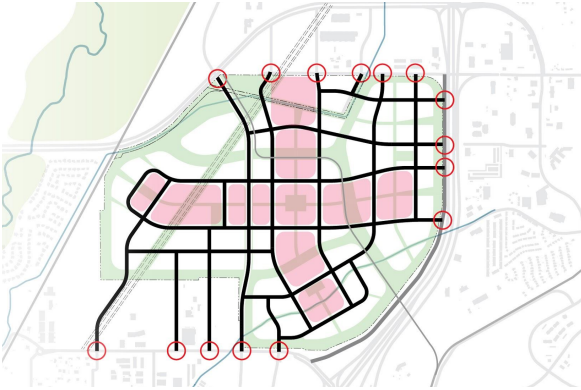
Criteria T3: Daily Internal Trip Capture

Takeaway: Having a larger retail and entertainment district allows residents and workers to remain on-site.



Criteria T4: Car-Free Zones

Takeaway: Eliminating roads in key areas allow for larger contiguous car-free areas.

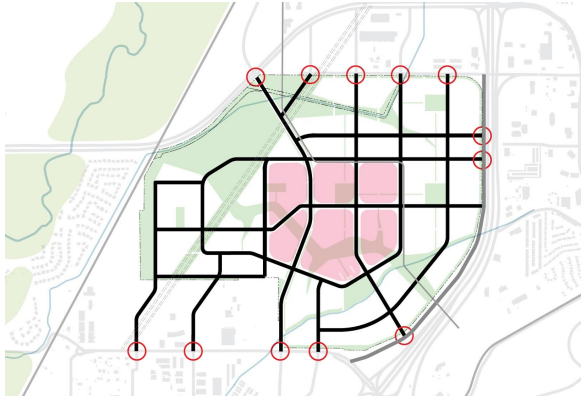


1: Complete Community

163 ac total

11 zones

14.8 ac/zone

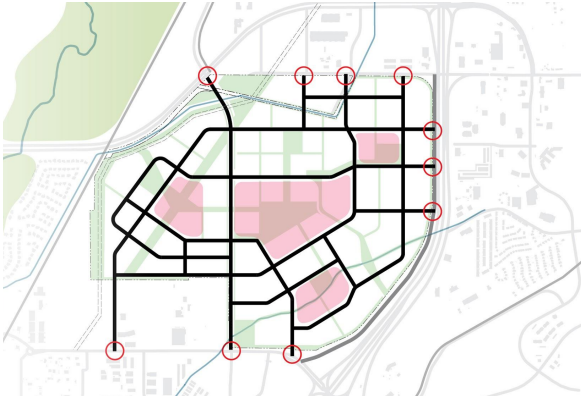


2: Regional Hub

99 ac total

6 zones

16.5 ac/zone



3: Economic Catalyst *

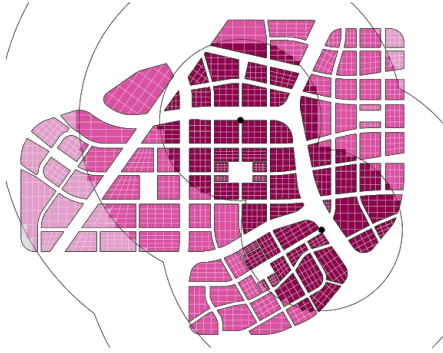
102 ac total

2 zones

51.0 ac/zone

Criteria T5: Access to BRT Stations

Takeaway: Concentrating development rather than open space around BRT allows greater access to transit.

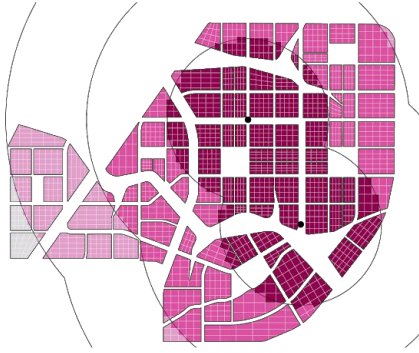


1: Complete Community

Percentage of Land, 5 minute walk: 39%

Percentage of Pop., 5 minute walk: 40%

Average: **39.5%**

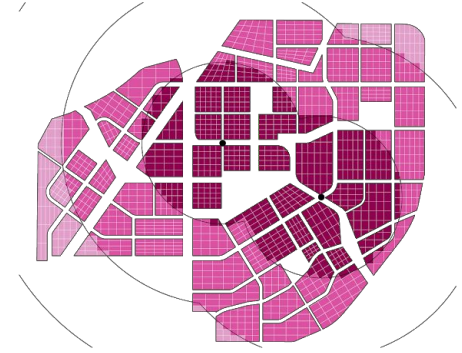


2: Regional Hub *

Percentage of Land, 5 minute walk: 41%

Percentage of Pop., 5 minute walk: 52%

Average: **46.5%**



3: Economic Catalyst

Percentage of Land, 5 minute walk: 37%

Percentage of Pop., 5 minute walk: 47%

Average: **42%**

Preliminary Recommendations: Transportation

Takeaway T1: Having a balanced land use mix reduces external car trips and minimizes air pollution.

Takeaway T2: Having more intersections increases connectivity and porosity of the development.

Takeaway T3: Having a larger retail and entertainment district allows residents and workers to remain on-site.

Takeaway T4: Concentrating development, rather than open space, around BRT allows greater access to transit.

Takeaway T5: Eliminating roads in key areas allow for larger contiguous car-free areas.

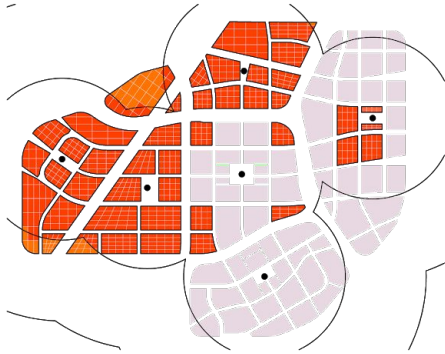
Preliminary Recommendations:

- 1. Residential land use should remain as a portion of the project program.**
- 2. Create the smallest reasonable block size to facilitate connectivity. Recommended min. is 400'x400'.**
- 3. Adopt the regional retail mix from Concept 2 as the default retail & entertainment program.**
- 4. Minimize large open spaces near BRT. Shrink development footprint to focus growth around BRT.**
- 5. Selectively eliminate some automobile roads to create meaningful car-free zones.**

5.2 Community Evaluation Criteria

Criteria C1: Access to Retail

Takeaway C1: Having sufficient and well-placed retail hubs allows the greatest access to daily services.

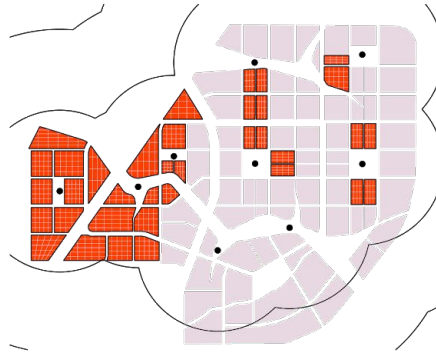


1: Complete Community

Percentage of Land, 5 minute walk: **92%**

Percentage of Pop., 5 minute walk: **94%**

Average: 93%

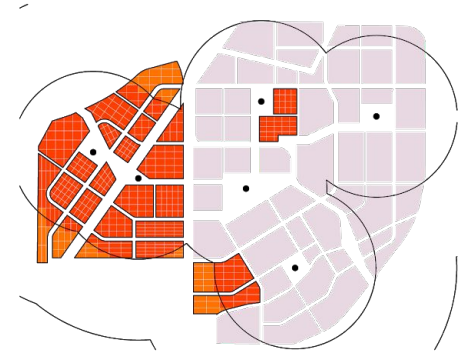


2: Regional Hub *

Percentage of Land, 5 minute walk: **100%**

Percentage of Pop., 5 minute walk: **100%**

Average: 100%



3: Economic Catalyst

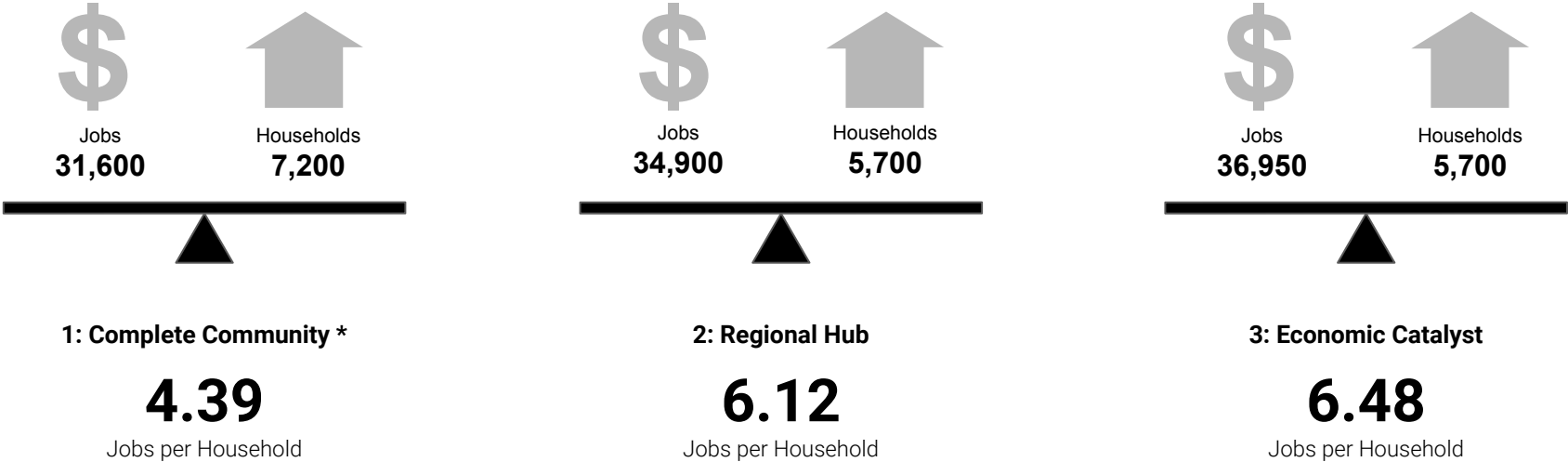
Percentage of Land, 5 minute walk: **86%**

Percentage of Pop., 5 minute walk: **88%**

Average: 87%

Criteria C2: Jobs/Housing Balance

Takeaway C2: Having a balanced land use mix and highest possible jobs per household creates an optimal live-work community.



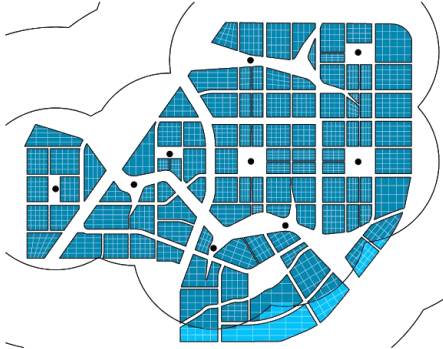
Criteria C3: Access to District Centers

Takeaway C3: Having more district centers allows greater access to retail and other shared services.



1: Complete Community

Percentage of Land, 5 minute walk: **90%**
Percentage of Pop., 5 minute walk: **91%**



2: Regional Hub *

Percentage of Land, 5 minute walk: **93%**
Percentage of Pop., 5 minute walk: **94%**

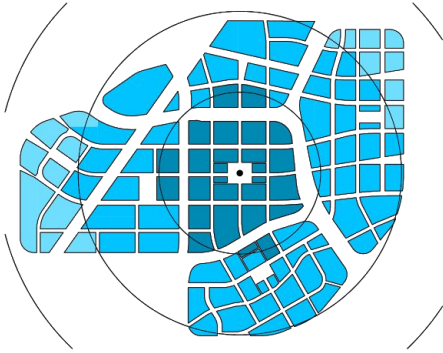


3: Economic Catalyst

Percentage of Land, 5 minute walk: **86%**
Percentage of Pop., 5 minute walk: **87%**

Criteria C4: Distance to Project Center

Takeaway C4: Reducing overall development footprint places more people and development parcels closer to project center.

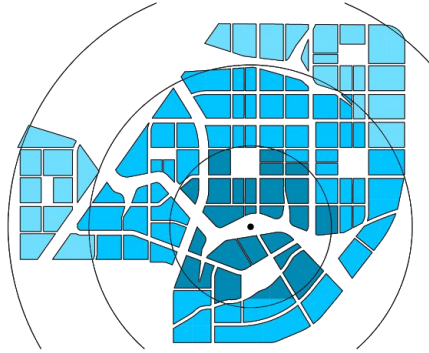


1: Complete Community

Percentage of Land, 5 minute walk: **29%**

Percentage of Pop., 5 minute walk: **30%**

Average: 29.5%



2: Regional Hub *

Percentage of Dev. Land, 5 minute walk: **30%**

Percentage of Pop., 5 minute walk: **34%**

Average: 32%



3: Economic Catalyst

Percentage of Land, 5 minute walk: **31%**

Percentage of Pop., 5 minute walk: **32%**

Average: 31.5%

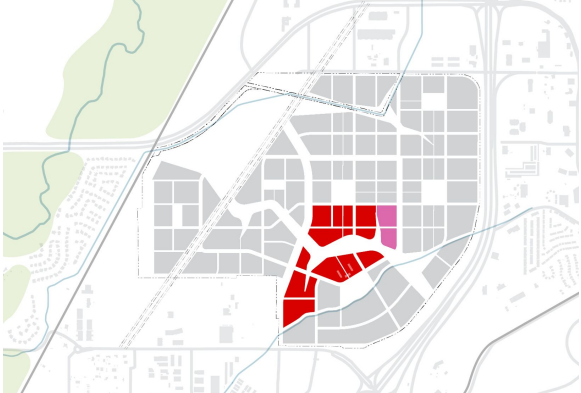
Criteria C5: Culture & Entertainment Attractors

Takeaway C5: Providing significant retail, entertainment & hotel uses creates a stronger core area and mixed-use project.



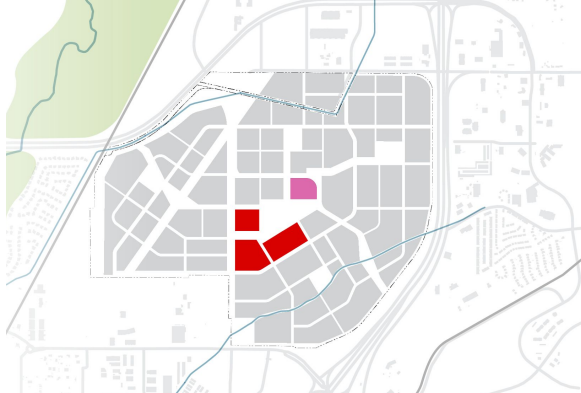
1: Complete Community

16.3 ac



2: Regional Hub *

43 ac



3: Economic Catalyst

30 AC

Preliminary Recommendations: Community

Takeaway C1: Having sufficient and well-placed retail hubs allows the greatest access to daily services.

Takeaway C2: Having a balanced land use mix and highest possible jobs per household creates an optimal live-work community.

Takeaway C3: Having more district centers allows greater access to retail and other shared services.

Takeaway C4: Reducing overall development footprint places more people and development parcels closer to project center.

Takeaway C5: Providing significant retail, entertainment & hotel uses creates a stronger core area and mixed-use project.

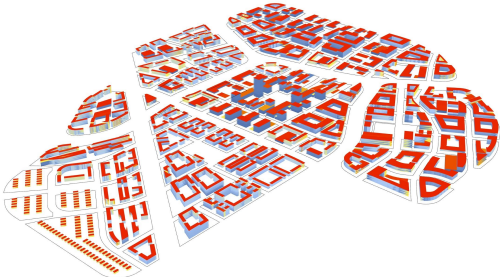
Preliminary Recommendations:

- 1. Maintain residential/non-residential land use mix.**
- 2. Implement a land use mix that creates the best proportion of jobs to housing.**
- 3. Implement multiple (6-8) district-based subcenters to meet residents' and employees' daily needs.**
- 4. Concentrate development footprint (suggest 50-55% of overall site area) to maximize links to project center.**
- 5. Include a significant (+/-40 ac.) retail, hotel & entertainment component to reduce off-site trips.**

5.3 Sustainability Evaluation Criteria

Criteria S1: Solar Access

Takeaway S1: Solar access is dependent on roof area and orientation and can be optimized during Stage 3.



1: Complete Community

7,348,432 kBtu/yr

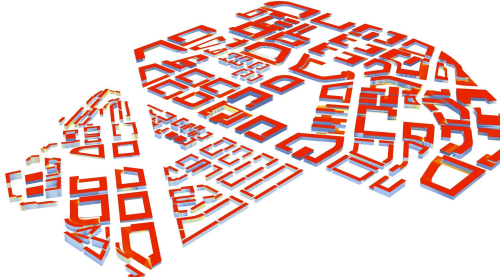
Total PV energy potential



2: Regional Hub *

8,440,600 kBtu/yr

Total PV energy potential



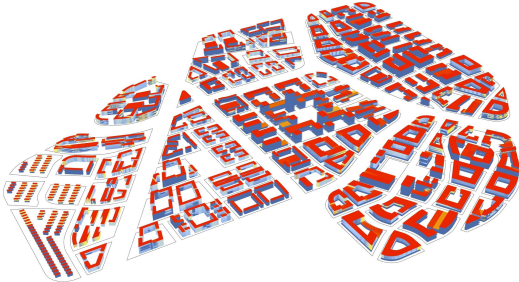
3: Economic Catalyst

7,363,825 kBtu/yr

Total PV energy potential

Criteria S2: Daylight Access

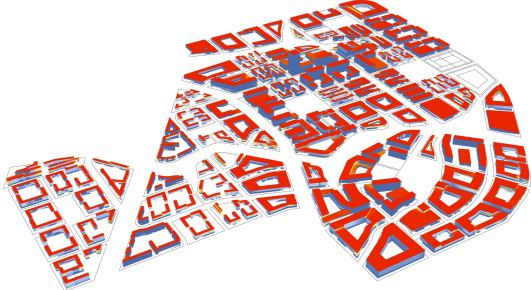
Takeaway S2: Daylight access is dependent on building orientation, floor-plate size and floor-to-floor dimension and can be optimized in Stage 3.



1: Complete Community

66%

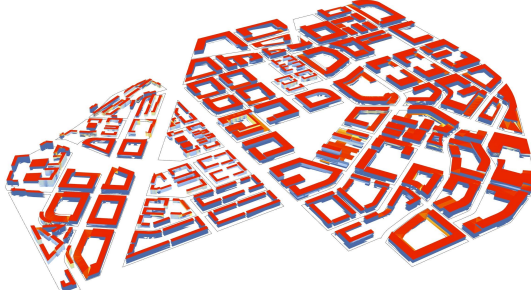
Spatial Daylight Autonomy



2: Regional Hub *

75%

Spatial Daylight Autonomy



3: Economic Catalyst

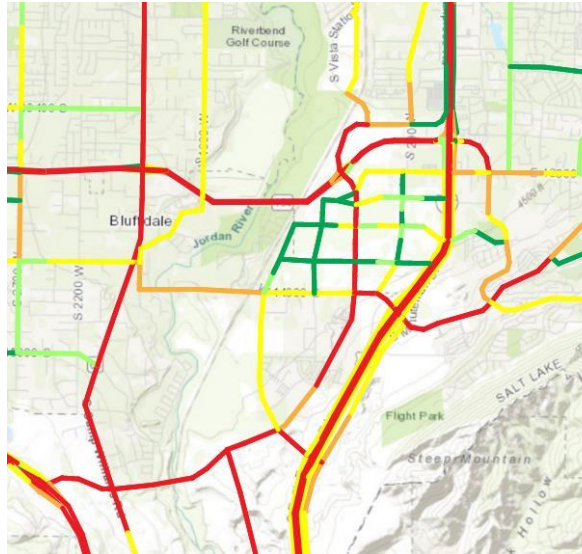
72%

Spatial Daylight Autonomy

Criteria S3: Regional Vehicle Miles Travelled (VMT)

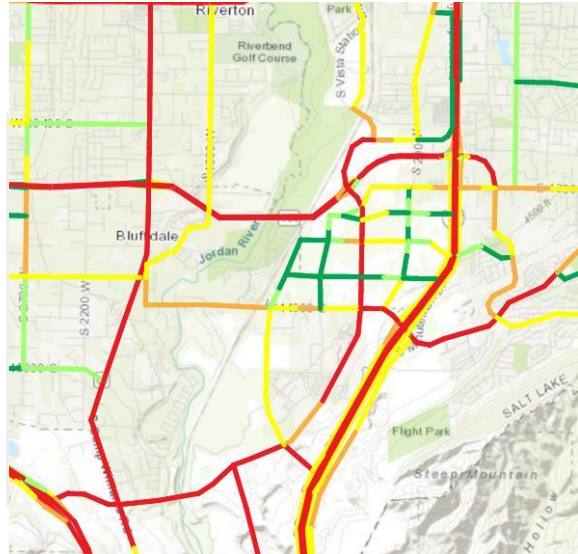
Includes VMT for all of Utah, Salt Lake, Davis, and Weber Counties

Takeaway S3: Having a more mixed-use program reduces overall VMT.



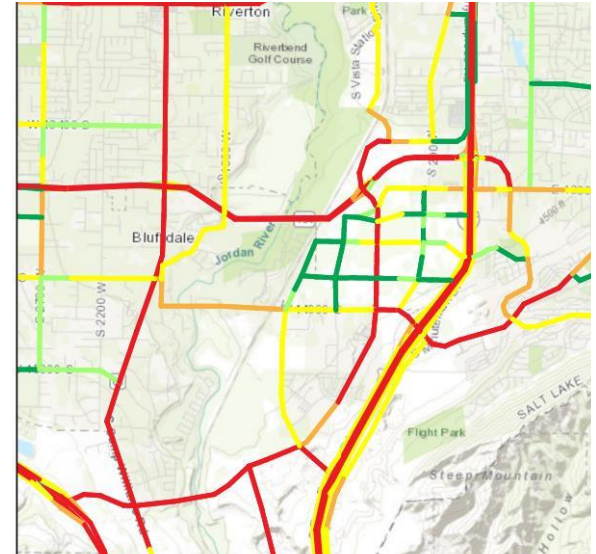
1: Complete Community *

87,902,190 VMT



2: Regional Hub

87,913,480 VMT



3: Economic Catalyst

87,914,674 VMT

Criteria S4: Stormwater & Green Infrastructure

Takeaway S4: Linear open spaces that allow water to move SE to NW (downhill), and allow interim storage, are more desirable.



1: Complete Community *

15 acres of potential stormwater pond detention
27,859 linear feet of stormwater conveyance
potential



2: Regional Hub

12 acres of potential stormwater pond detention
16,328 linear feet of stormwater conveyance
potential



3: Economic Catalyst

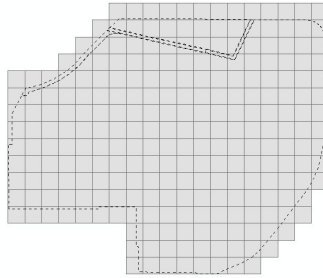
11 acres of potential stormwater pond detention
11,953 linear feet of stormwater conveyance
potential

Note: This accounts for potential pond locations in open space and "green fingers". The use of streetscapes and rooftops for green infrastructure was not part of this evaluation.

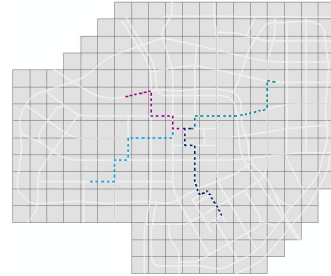
Criteria S5: Pedestrian and Bicycle Connectivity

Process

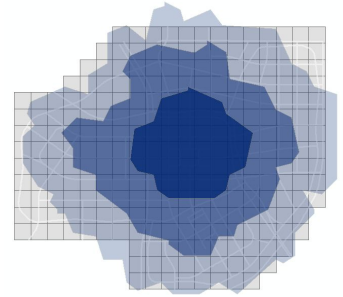
1. Place a grid of 350 ft. x 350 ft. cells over the site.
2. Calculate the distance between every pair of cells using the street + trail network.
3. For each cell, calculate a distance-weighted connectivity score.
4. Aggregate and compare connectivity scores for each alternative.



Step 1



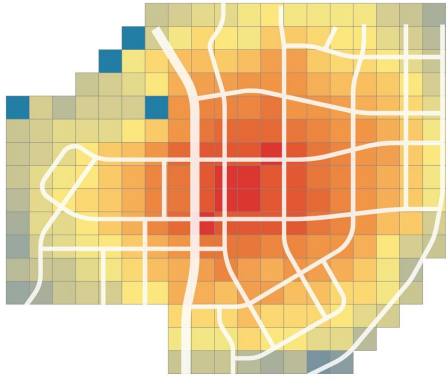
Step 2



Step 3

Criteria S5: Bicycle and Pedestrian Connectivity

Takeaway S5: Trails combined with sidewalks and linear greenways yield the greatest pedestrian & bicycle connectivity for the project.



1: Complete Community *

Average Connectivity Score:
51.9% of site within 15-minute walk

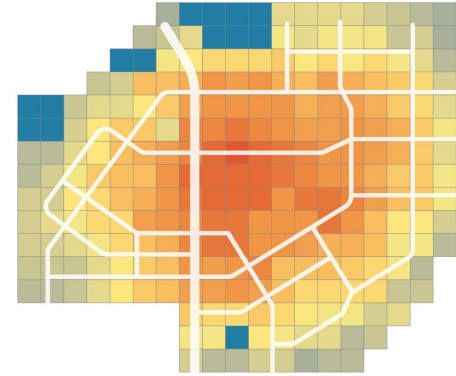
Max Connectivity Score:
89.8% of site within 15-minute walk



2: Regional Hub

Average Connectivity Score:
49.2% of site within 15-minute walk

Max Connectivity Score:
87.0% of site within 15-minute walk



3: Economic Catalyst

Average Connectivity Score:
49.0% of site within 15-minute walk

Max Connectivity Score:
86.2% of site within 15-minute walk

Preliminary Recommendations: Sustainability

Takeaway S1: Solar access is dependent on roof area and orientation and can be optimized during Stage 3.

Takeaway S2: Daylight access is dependent on building spacing, floor-plate size and floor-to-floor dimension and can be optimized in Stage 3.

Takeaway S3: Having a more mixed-use program reduces overall VMT.

Takeaway S4: Linear open spaces that allow water to flow downhill and accommodate interim storage are more desirable.

Takeaway S5: Trails combined with sidewalks and linear greenways yield the greatest pedestrian & bicycle connectivity for the project.

Preliminary Recommendations:

- 1. Consider building orientation and roof utilization in block layout.**
- 2. Consider building height, spacing and design in Stage 3.**
- 3. Maintain residential/non-residential land use mix.**
- 4. A portion of the open spaces should be designed to accommodate overland water flow.**
- 5. Design for full and seamless connectivity between trails and sidewalks.**

5.4 Open Space Evaluation Criteria

Criteria OS 1: Distance to Open Space

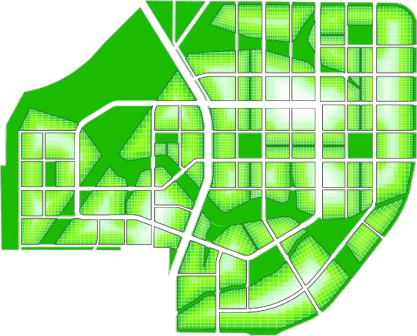
Takeaway OS1: More numerous and dispersed green spaces, parks, and green links enhance access to open space.



1: Complete Community *

Average Distance to Green Space

113ft



2: Regional Hub

Average Distance to Green Space

136ft



3: Economic Catalyst

Average Distance to Green Space

145ft

Criteria OS 2: Open Space Programming

Takeaway OS2: Larger parks and open spaces with regularized shapes are more conducive to a variety of programming options.



1: Complete Community

Active Programming

23 acres



2: Regional Hub *

Active Programming

71 acres



3: Economic Catalyst

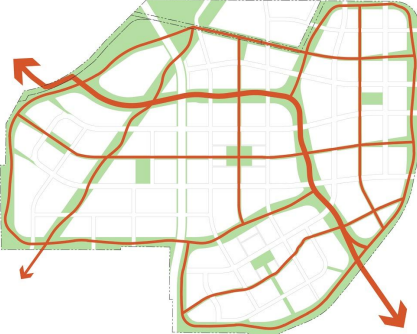
Active Programming

35 acres

Note: 49 acres of the 71 acres in Option 2 are classified as "Community Sports Park" which makes a significant difference in the evaluation rankings.

Criteria OS 3: Trails Connectivity

Takeaway OS3: Linear open spaces enhance trail creation opportunities and connectivity.



1: Complete Community *

53,838

linear feet of trails



2: Regional Hub

52,079

linear feet of trails



3: Economic Catalyst

43,122

linear feet of trails

Criteria OS 4: Ecology & Biodiversity Potential

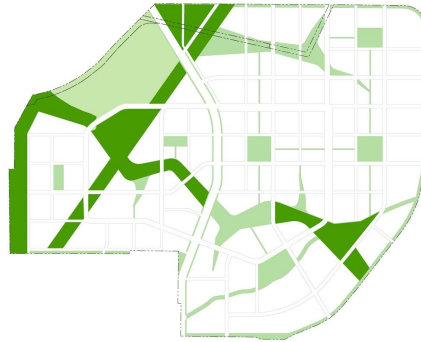
Takeaway OS4: Larger interconnected open spaces create more opportunities for biodiversity and ecological restoration.



1: Complete Community

61 acres

that contribute to ecological potential



2: Regional Hub *

88 acres

that contribute to ecological potential



3: Economic Catalyst

24 acres

that contribute to ecological potential

Criteria OS 5: Proximity to Open Space

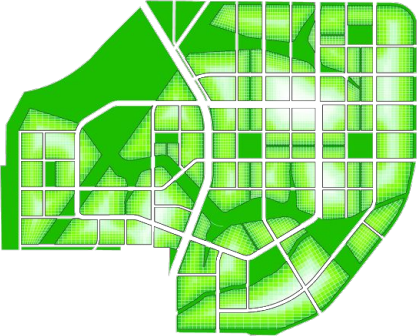
Takeaway OS5: Significant sales premium is created by establishing close proximity to open space.



1: Complete Community *

79%

Percent within 200 ft of open space



2: Regional Hub

71%

Percent within 200 ft of open space



3: Economic Catalyst

70%

Percent within 200 ft of open space

Preliminary Recommendations: Open Space

Takeaway OS1: More numerous and dispersed green spaces, parks, and green links enhance access to open space.

Takeaway OS2: Larger parks and open spaces with regularized shapes are more conducive to a variety of programming options.

Takeaway OS3: Linear open spaces enhance trail creation opportunities and connectivity.

Takeaway OS4: Larger interconnected open spaces create more opportunities for biodiversity and ecological restoration.

Takeaway OS5: Significant sales premium is created by establishing close proximity to open space.

Preliminary Recommendations:

- 1. Have a significant proportion of small parks (1 acre) and connective greenways to provide open space access.**
- 2. Complement smaller parks with 6-8 larger (3-4 acres) district parks.**
- 3. Add large linear parks to convey stormwater, support green infrastructure and provide recreational benefits.**
- 4. Create opportunities for native landscapes to re-establish themselves.**
- 5. Create a robust parks and greenway network that provides maximum proximity to open space.**

5.5 Economic Evaluation Criteria

Criteria E2: Parcel Frontage on Open Space

Takeaway E2: Parcels adjacent to open space will have additional sales and rental value.



1: Complete Community

Percent of land with green frontage

42%



2: Regional Hub *

Percent of land with green frontage

46%



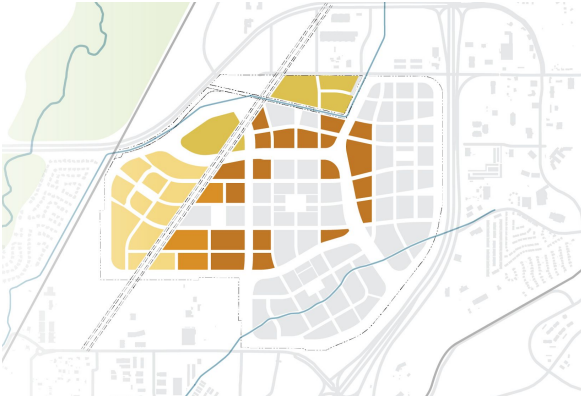
3: Economic Catalyst

Percent of land with green frontage

45%

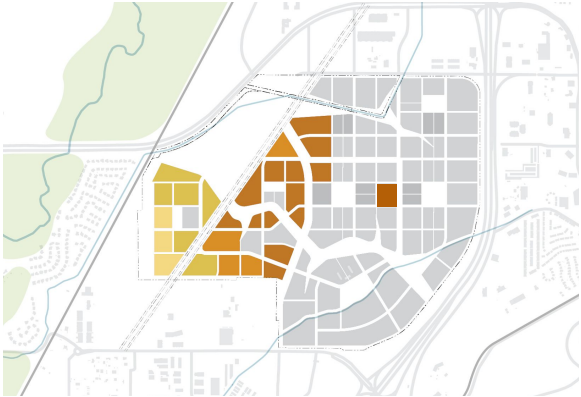
Criteria E3: Residential Quantity & Variety

Takeaway E3: Providing more extensive residential development allows for greater variety of housing types.



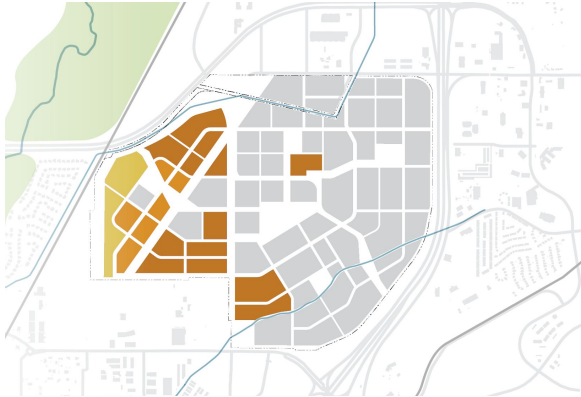
1: Complete Community *

165 ac



2: Regional Hub

102 ac



3: Economic Catalyst

108 AC

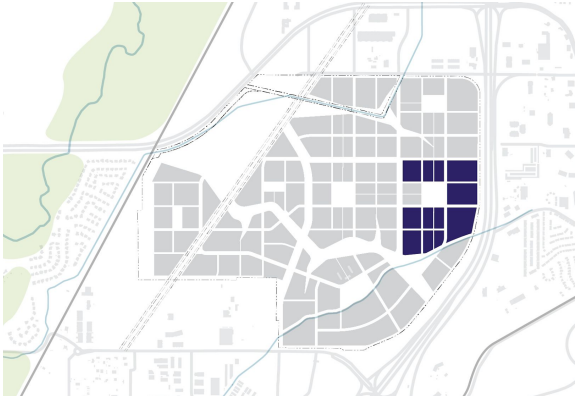
Criteria E4: Institutional Capacity

Takeaway E4: Providing maximum institutional capacity allows for more programming and partnership options.



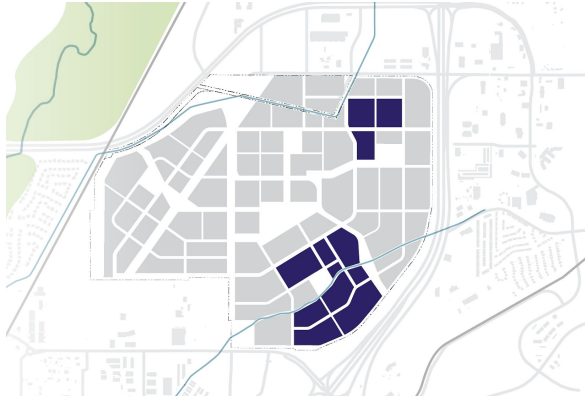
1: Complete Community

0 ac



2: Regional Hub

38 ac



3: Economic Catalyst *

65 AC

Criteria E5: Office Quantity & Variety

Takeaway E5: Maximizing office development optimizes job creation and builds tax base.



1: Complete Community

141 ac



2: Regional Hub

122 ac



3: Economic Catalyst *

145 ac

Preliminary Recommendations: Economy

Takeaway E2: Parcels adjacent to open space will have additional sales and rental value.

Takeaway E3: Providing more extensive residential development allows for greater variety of housing types.

Takeaway E4: Providing maximum institutional capacity allows for more programming and partnership options.

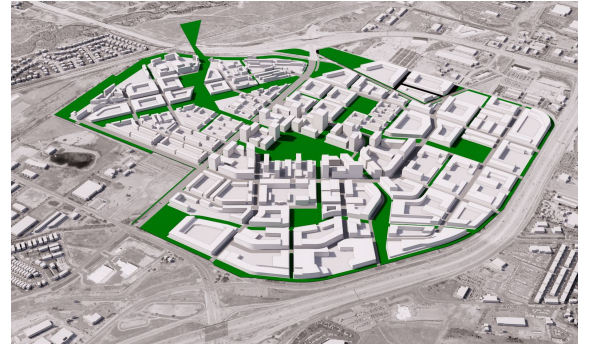
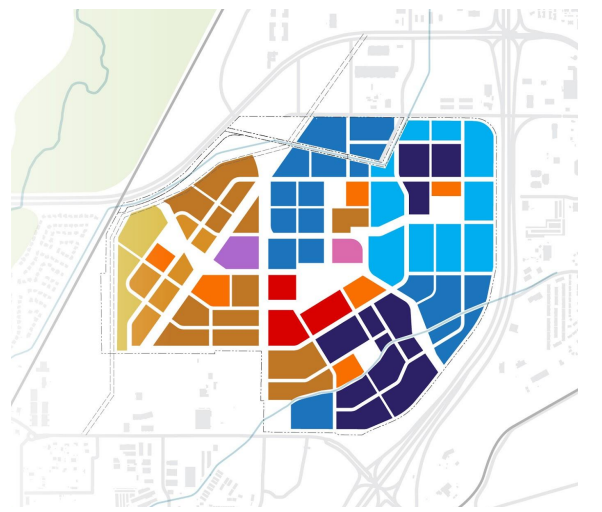
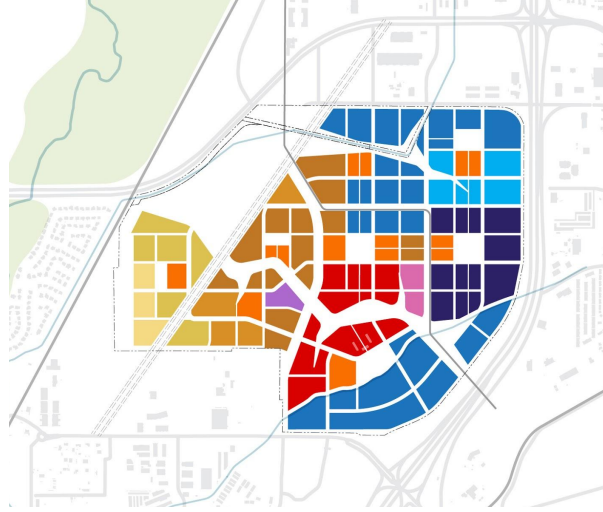
Takeaway E5: Maximizing office development optimizes job creation and builds tax base.

Preliminary Recommendations:

- 1. Create an open space strategy that touches the greatest amount of parcels.**
- 2. Commit to a variety of housing types and residential parcel sizes to create choice in the market.**
- 3. Create a significant institutional and research presence within the project.**
- 4. Include substantial office development to maximize economic development.**

Evaluation Results

Key Vision Element	Evaluation Criteria	Metric	Source	Conceptual Scoring			Actual Scoring			
				Low 1	Medium 2	High 3	Alt 1	Alt 2	Alt 3	
T1	TRANSPORTATION	Daily External Car Trips	Trips	Hales	Most	Middle	Least	3	2	1
T2		Intersection Density	Quantity	SS	Least	Middle	Most	2	3	1
T3		Daily Internal Capture	Percentage	Hales	Least	Middle	Most	1	3	2
T4		Car-Free Zones	Quantity	SOM	Least	Middle	Most	1	2	3
T5		Access to BRT Stations	Proximity	SOM	Least	Most	Middle	1	3	2
TOTAL								8	13	9
C1	COMMUNITY	Access to Retail	Proximity	SOM	Middle	Most	Least	2	3	1
C2		Jobs/Housing Balance	Proportion	SOM	Worst	Middle	Best	3	2	1
C3		Access to District Centers	Proximity	SOM	Farthest	Middle	Closest	2	3	1
C4		Distance to Project Center	Distance	SOM	Farthest	Middle	Closest	1	3	2
C5		Culture & Entertainment Attractors	Quantity	SOM	Least	Middle	Most	2	3	1
TOTAL								10	14	6
S1	SUSTAINABILITY	Solar Access	Quantity	SOM	Least	Middle	Most	1	3	2
S2		Daylight Access	Quantity	SOM	Least	Most	Middle	1	3	2
S3		Regional Vehicle Miles Travelled (VMT)	Miles	Hales	Most	Middle	Least	3	2	1
S4		Stormwater & Green Infrastructure	Capacity	DW	Least	Middle	Most	3	2	1
S5		Pedestrian and Bicycle Connectivity	Distance	SS	Least	Middle	Most	3	2	1
TOTAL								11	12	7
OS 1	OPEN SPACE	Distance to Open Space	Distance	SOM	Most	Middle	Least	3	2	1
OS 2		Open Space Programming	Variety	DW	Least	Middle	Most	1	3	2
OS 3		Trails Connectivity	Length	DW	Least	Middle	Most	3	2	1
OS 4		Ecology & Biodiversity Potential	Quality	DW	Least	Middle	Most	2	3	1
OS 5		Proximity to Open Space	% of parcel	SOM	Most	Middle	Least	3	2	1
TOTAL								12	12	6
E1	ECONOMY	Cost of Tranche 2 Elements	Cost	SOM	Least	Middle	Most	2	1	3
E2		Parcel Frontage on Open Space	Lin Ft.	SOM	Least	Middle	Most	1	3	2
E3		Residential Quantity & Variety	Quantity	SOM	Least	Middle	Most	3	2	1
E4		Institutional Capacity	Quantity	SOM	Least	Middle	Most	1	2	3
E5		Office Quantity & Variety	Quantity	SOM	Least	Middle	Most	1	2	3
TOTAL								8	10	12
TOTAL SCORE								49	61	40



Concept 1: **Complete Community**

Concept 2: **Regional Hub**

Concept 3: **Economic Catalyst**

3. Sustainability / Resilience Framework

Key Vision Elements



Create an iconic, vibrant, mixed-use community, with a focus on quality of life and healthy living, with a strategic balance of jobs and housing to limit off-site trip generation. Include active, welcoming places for people to gather day and night for recreation, dining, culture and entertainment.



Serve the site with a high-quality, future-focused, multi-modal transportation system, with an emphasis on convenience, safety, access, regional traffic reduction, limited parking, emissions reduction, and active transportation.



Promote enduring statewide economic development through job creation, workforce development, and revenue generation. Create a community that will attract and nurture top talent and outstanding anchor companies, as well as smaller local businesses.



Advance innovation by creating a place that promotes a culture of creativity and ingenuity, attracts outstanding talent and investment, promotes solution-oriented research, fosters the growth of promising early-stage companies, eliminates regulatory barriers, and facilitates interdisciplinary industry and academic partnerships to generate and commercialize new ideas.



Create a model of sustainable development that, relative to traditional development, significantly reduces air emissions (including GHG), water pollution, water and energy use, and takes advantage of on- and off-site renewable energy resources (including an on-site geothermal resource). Explore a net-zero-ready development.



Coordinate closely with others to ensure the development fits well with regional plans and infrastructure, advancing the interests of the broader community and not just the site. Promote regional trail, transportation, and green infrastructure connections through the area and facilitate thoughtful regional growth.

Sustainability Process

Aligning Goals, Design, and Cost



We are in the goal setting phase:

- Defining goals that range from good (must have on project) to best (highly aspirational stretch goals)
- Goals and Key Performance Indicators are shared with project team
- Sustainable design incorporation is not complete but being considered by all design disciplines

In the next phase Sustainable Design advances by:

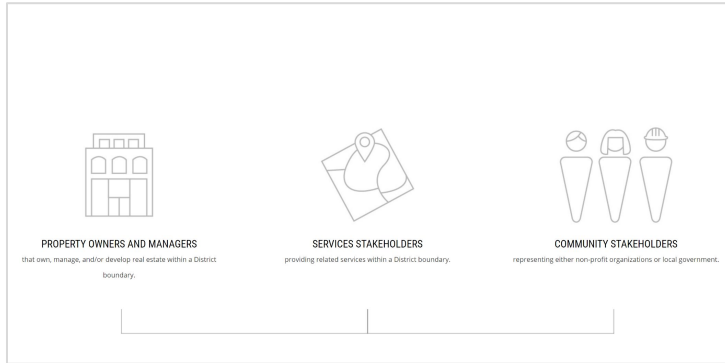
- As single scheme is developed further incorporation of sustainable aspects into design will commence in earnest
- Funding mechanisms will be more deeply studied
- Strategic alliances will be made that allow us to meet sustainable aspirations above market rate

Ultimate framework design based on:

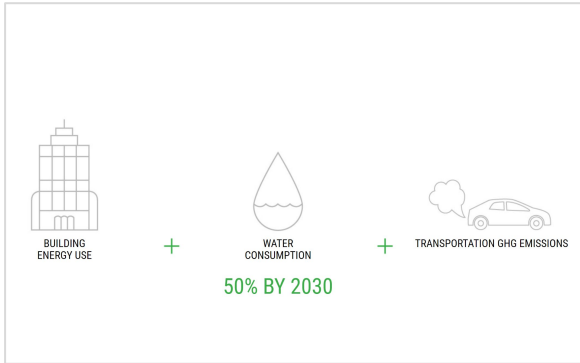
- Team aspirations
- Life Cycle Considerations
- Funding mechanisms
- Overall sustainable value and feasibility of cost

Benchmarking 2030 Districts

A 2030 District is a Private-Public partnership:



**Achieve District-Wide Goals
2030 Districts commit to reducing:**



Linked to a network of Districts:



The Point of the Mountain has a rare opportunity and vision to meet highly aggressive sustainability goals. To do so a financial and stakeholder support model should take inspiration from the 2030 District System.

2030 Districts are organizations led by the private sector, with local building industry leaders uniting around a shared vision for sustainability and economic growth – while aligning with

local community groups and government to achieve significant energy, water, and emissions reductions within our commercial cores.

Property owner/manager/developers join a local 2030 District to help them make significant changes to their properties to create reductions necessary to transition to a low carbon economy.

Benchmarking

Third Party Certifications



**NEIGHBORHOOD
DEVELOPMENT
(Holistic)**

The United States Green Building Council's LEED Neighborhood Development (LEED-ND) standard is holistic, widely recognized in the global marketplace, and will ensure broad sustainability is followed throughout the development.



**COMMUNITY
(Healthy)**

The International WELL Building Institute administers the WELL Community standard which focuses on improved health outcomes through better design. While not widely adopted the project team should include critical adjacencies to community, mental and recreational amenities, AND air / water / thermal quality improvements.



The International Living Futures Institute works with project teams on the Living Community Challenge. This Challenge focuses on regenerative design with best in the world standards for resource efficiency. The project team should aim to meet select goals of the Living Community Challenge, recognizing that achieving all of the goals would be aspirational and require the right financial partners.

Framework Focus Areas

While performance indicators will continue to be developed in the next stage of framework design five focus areas were selected that resonate with regional concerns in Draper, Bluffdale, and Riverton.

Quality of Life



Mobility: Air Quality/Traffic Congestion

Address human and environmental health and wellness. Expand mobility options while reducing auto trips and their associated carbon emissions, pollution, and health risks.



Ecology: Habitat Fragmentation

Align growth with local ecologies to minimize the impacts of new development on biodiversity and natural resources.

Resource Utilization



Energy and Carbon: Net Zero Ready

Manage energy resources with efficiency, renewables and low carbon materials. Prepare for Net Zero Carbon Built Environments.



Water: Scarcity

Manage water resources holistically to increase efficiency, use natural sources responsibly, and increase recycling.

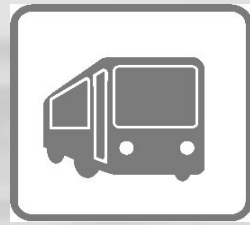


Waste:

Apply circular resource strategies to reduce raw material extraction, minimize waste, and expand reuse potential.

Quality of Life

Mobility: Air Quality/Traffic Congestion



Address human and environmental health and wellness. Expand mobility options while reducing auto trips and their associated carbon emissions, pollution, and health risks.

Goals

Good

Promote compact and walkable districts to reduce vehicle-dependency

Better

Prioritize comprehensive, multimodal transportation networks (with cycle lanes and walking/running paths - wherever possible)

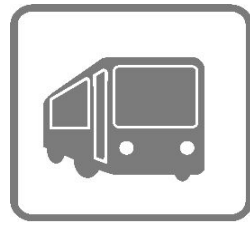
Best

Adapt transportation system for net zero energy and carbon to drastically reduce vehicle-related carbon emissions, pollution and health risks

Quality of Life

Mobility: Air Quality/Traffic Congestion

Address human and environmental health and wellness. Expand mobility options while reducing auto trips and their associated carbon emissions, pollution, and health risks.



Emissions Reductions

- 50% Transportation Carbon Reduction (kgCO₂e/km)



Electric Vehicles

- 20% Electric vehicles day 1, with provisions for more in the future



Transit Access

- Locate all residences and businesses within ¼ of a mile of Transit
- Increase Frequency of trips
 - Weekday 60-320
 - Weekend 24-60



Bike and Walk

- Bike network and target length of bike lane
- 2.5% population has access to bike racks / bike share
- Continuous sidewalks for 90% of street frontage

Quality of Life

Ecology: Habitat Fragmentation



Align growth with local ecologies to minimize the impacts of new development on biodiversity and natural resources.

Goals

Good

Design with nature, incorporating native & adapted vegetation and integrating the built environments with natural systems

Better

Reconnect local hydrology while planning for erosion and sedimentation control during construction

Promote sustainable food production, and strengthen its resilience

Best

Conserve natural areas with designated habitat refuges, increase biodiversity indices



Quality of Life

Ecology: Habitat Fragmentation

Align growth with local ecologies to minimize the impacts of new development on biodiversity and natural resources.



Open Space

- 20-30% Open Space



Access

- Residents within 2 blocks of Open Space



Habitat Preservation

- 40% of Open Space as biodiversity refuge
- Bio-Islands that increase species diversity

Landscape Services

- Carbon Sequestration
- Biodiversity Indices improvement

Resource Depletion

Energy and Carbon: Net Zero Ready



Manage energy resources with efficiency, renewables and low carbon materials, prepare for Net Zero Carbon Built Environments

Goals

Good

Minimize operational carbon emissions with efficiency

Accelerate transition to renewable energy

Better

Minimize operational carbon with district heating systems and ground source heat exchange building on the history of district heating at the prison

Best

No combustion onsite

100% renewable on and off site

Prioritize low carbon and local materials

Resource Depletion

Energy and Carbon: Net Zero Ready

Manage energy resources with efficiency, renewables and low carbon materials, prepare for Net Zero Carbon Built Environments



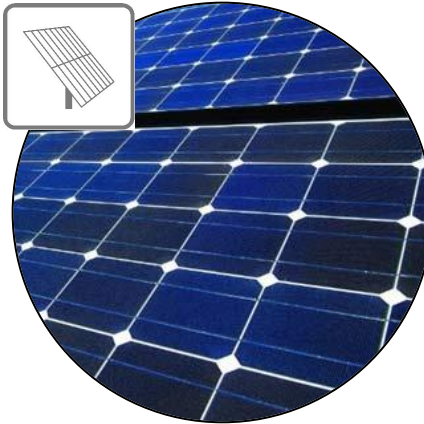
District Systems and Electrification

- Build on The Points history of district heating
- Ground source heat exchange
- Phasing for electrification



Efficiency

- 50% less operational carbon compared to conventional buildings



Renewables

- 100% On/off site renewable
- 20% Onsite renewable

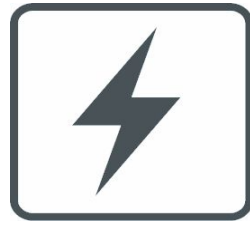


Embodied Carbon

- 20% less material carbon with local and low carbon

Resource Depletion

Energy and Carbon: District Systems



Recommended

			Office	Education / Institutional	Retail / F&B	Hotel	Residential
District Heating	Peak Heating Load	MMBH	65	51	19	6	49
	Estimated MEP Plant Area	SF	9,739	370	142	46	356

**MEP Plant Area includes Electrical Substation, Plumbing Plant, Generators, and Boiler Plant*

Option

			Office	Education / Institutional	Retail / F&B	Hotel	Residential
District Cooling	Peak Cooling Load	MMBH	10,266	6,467	2,552	908	7,817
	Estimated MEP Plant Area	SF	10,474	5,214	2,624	1,839	8,052

**MEP Plant Area includes Electrical Substation, Plumbing Plant, Generators, Chillers, and Heat Rejection*

Resource Depletion

Water: Scarcity



Manage water resources holistically to increase efficiency, use natural sources responsibly, and increase recycling

Goals

Good

Reduce potable water consumption

Manage water resources holistically, and minimize water waste

Better

Zero or greatly reduced irrigation

Reuse rainwater for irrigation

Best

Protect and restore water-related ecosystems & natural habitats

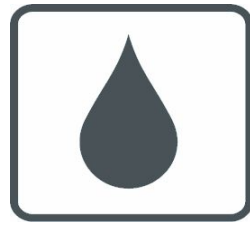
Reuse treated greywater indoors for non potable needs building on the capacity of



Resource Depletion

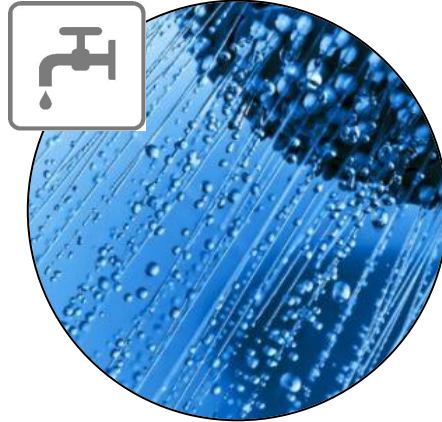
Water: Scarcity

Manage water resources holistically to increase efficiency, use natural sources responsibly, and increase recycling



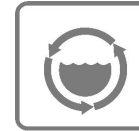
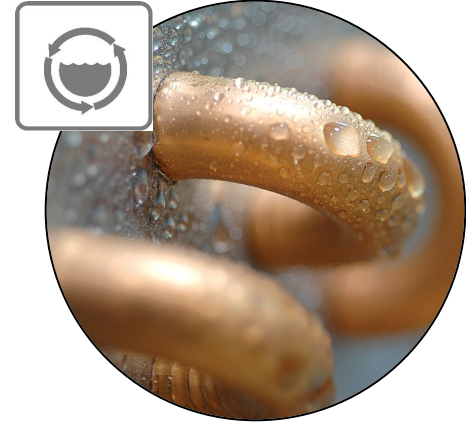
Surface Hydrology

- 100% of surface runoff is bio-filtered before reconnecting with the aquifer
- Decouple storm and sewage network for clean water overflow
- Stormwater storage for other uses
Understand water rights & storage limitations



Efficiency

- 40% Indoor water use reduction.

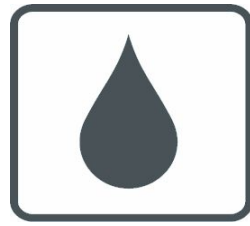


Reuse

- Collect 100% of rainwater for irrigation
- Condensate recovery at building scale
- Greywater reuse at building scale

Resource Depletion

Water: Efficiency



**Efficient
Fixtures**

35-40%
Reduction



**Low Flow +
Rainwater
Reuse**

45-50%
Reduction



**Ultra Low Flow +
Greywater
Reuse**

55-60%
Reduction



Total Domestic Water Consumption
(gallons/day)

	Office	Education / Institutional	Retail / F&B	Hotel	Residential
	725,152	402,757	46,301	153,431	388,016

Resource Depletion

Waste



Apply circular resource strategies to reduce raw material extraction, minimize waste, and expand reuse potential

Goals

Good

Expand safe recovery and re-use of materials at the end-of-life with community recycling centers

Minimize construction and operational waste

Better

Promote waste-to-energy, waste-to-food and waste-to-material/product systems/strategies (to reduce waste to landfill and promote circular economy)

Best

Demonstration project that highlights waste reduction, waste-to-energy

Demonstration project with a pneumatic waste system to dramatically increase recycling rates

Resource Depletion

Waste

Apply circular resource strategies to reduce raw material extraction, minimize waste, and expand reuse potential



Recycling

- 50% recycling rate



Waste to Energy

- Provisions for composting and sitewide waste to energy















Construction Waste

- 75% diversion from landfill

Outreach and Feasibility

Discussions and community engagement with local institutions will continue throughout framework design to inform sustainability goals and their feasibility.

	Mobility	Ecology	Energy and Carbon	Water	Waste
Potential Allied Organizations			 (Utah Forge)	 UTAH'S WATER-WISE PLEDGE water.utah.gov/H2Oath	 UTAH RECYCLING ALLIANCE
					
Potential Incentives					

Key Conclusions

Sustainability / Resilience Framework

Summary

1. Sustainability is a Key Vision Element: The Point of the Mountain is a once in a lifetime opportunity to develop a highly sustainable community.
2. Sustainable Integration: The project team has begun to develop a Framework for project sustainability and resilience. The Framework will evolve throughout the development of the project and we expect goals will continue to be integrated into the framework design and discussed in relationship to feasibility and cost.
3. The team recommends a custom framework of key performance indicators that will allow LEED-ND certification. The custom framework will integrate elements of the WELL Community standard and key goals from the Living Community standard.
4. Five focus areas were selected for their applicability to Utah and the Point of the Mountain: mobility, ecology, energy/carbon, water, and waste.

Next Steps

1. As framework design consolidates into one scheme continue to integrate key performance indicators into the design.
2. Further exploration into the feasibility of globally exceptional goals for key performance indicators related to Quality of Life (mobility and ecology) as well as Resource Utilization (energy/carbon, water, and waste).
3. Further input and collaboration with key stakeholders and regional leaders.
4. Deeper consideration of financial models and partnerships that have successfully deployed regenerative design and infrastructure. These may include Public Private Partnerships, Infrastructure Trusts, and Power Purchase agreements.
5. Potential utility cost savings for advanced infrastructure in the following categories: low impact stormwater management, district energy, water efficiency and reuse.
6. Due to the low cost of waste management and recyclables, innovative waste management strategies will be explored but are not expected to have significant capital savings.

6. Key Vision Elements and Guiding Principles Refinement

Key Vision Elements



Create an iconic, vibrant, mixed-use community, with a focus on quality of life and healthy living, with a strategic balance of jobs and housing to limit off-site trip generation. Include active, welcoming places for people to gather day and night for recreation, dining, culture and entertainment.



Serve the site with a high-quality, future-focused, multi-modal transportation system, with an emphasis on convenience, safety, access, regional traffic reduction, limited parking, emissions reduction, and active transportation.



Promote enduring statewide economic development through job creation, workforce development, and revenue generation. Create a community that will attract and nurture top talent and outstanding anchor companies, as well as smaller local businesses.



Advance innovation by creating a place that promotes a culture of creativity and ingenuity, attracts outstanding talent and investment, promotes solution-oriented research, fosters the growth of promising early-stage companies, eliminates regulatory barriers, and facilitates interdisciplinary industry and academic partnerships to generate and commercialize new ideas.



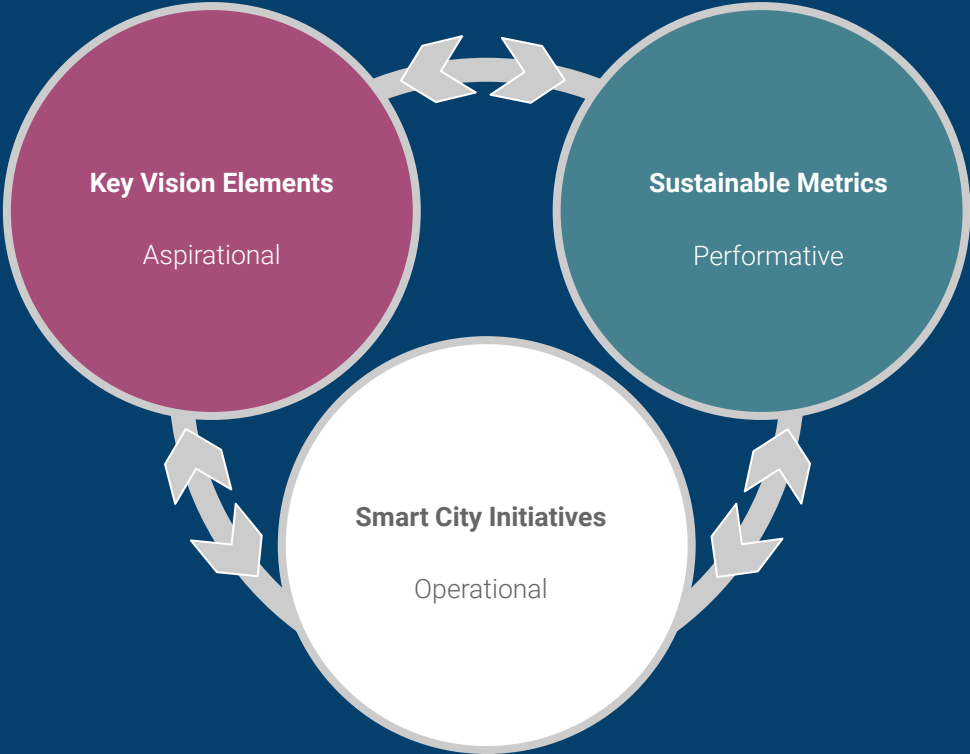
Create a model of sustainable development that, relative to traditional development, significantly reduces air emissions (including GHG), water pollution, water and energy use, and takes advantage of on- and off-site renewable energy resources (including an on-site geothermal resource). Explore a net-zero-ready development.



Coordinate closely with others to ensure the development fits well with regional plans and infrastructure, advancing the interests of the broader community and not just the site. Promote regional trail, transportation, and green infrastructure connections through the area and facilitate thoughtful regional growth.

Smart City + KVEs + Sustainable Metrics

A Virtuous Cycle



KEY VISION ELEMENT



Create an **iconic**, vibrant, **mixed-use** community, with a focus on quality of life and **healthy living**, with a strategic **balance of jobs and housing** to limit off-site trip generation. Include active, welcoming places for people to **gather day and night** for recreation, dining, culture and entertainment.

PRINCIPLE

ICONIC PLACEMAKING



MIXED-USE VIBRANCY



HEALTHY LIVING



GATHER DAY AND NIGHT



SHARED SPACE



NEW RESIDENTIAL TYPES



INITIATIVES

1. Protect and enhance viewsheds
2. Create car-free zones
3. Create a centralized 21st-century digital library
4. Create neighborhood data hubs

1. Design for walkability
2. Create significant density
3. Provide signature retail
4. Provide full spectrum of civic services

1. Implement WELL Building Standards
2. Create spaces for community gardens, farmers' markets, and micro-gardens

1. Keep restaurants open late
2. Have live music
3. Define new types of retail
4. Program F&B and commercial activities in cores

1. Provide nearby access to green/gathering space
2. Design for an AV circulator
3. Break down boundaries between public and private environments

1. Provide micro-units
2. Wire for digital innovation
3. Provide co-housing

KEY VISION ELEMENT

PRINCIPLE

INITIATIVES



Serve the site with a high-quality, **future-focused, multi-modal** transportation system, with an emphasis on convenience, safety, access, **regional traffic reduction, limited parking, emissions reduction,** and active transportation.

AUTONOMOUS TECHNOLOGY



1. Accommodate for potential autonomous tech (ex ride-share, auto shuttles, drone delivery etc)
2. Provide parking availability indicators
3. Provide traffic routing/congestion notifications

MULTI-MODAL NETWORKS



1. Implement TOD elements along the BRT route
2. Connect to commuter rail and potentially provide a new FrontRunner station
3. Design all public ways to provide equal status to all modes

REGIONAL TRAFFIC REDUCTION



1. Create the right mix of land uses
2. Provide significant housing to complement job creation

PARKING DEMAND REDUCTION



1. Reduce parking requirements with work-from-home changes and reduced car ownership
2. Set parking maximums
3. Enhance walkability

EMISSION REDUCTION



1. Reward EV use, bicycling, and walking
2. Provide charging stations
3. Mandate all-electric service and transit vehicles

PEDESTRIAN PRIORITY



1. Provide safe and accessible walking paths between land uses and transit
2. Provide first priority to pedestrians in the entire master plan.

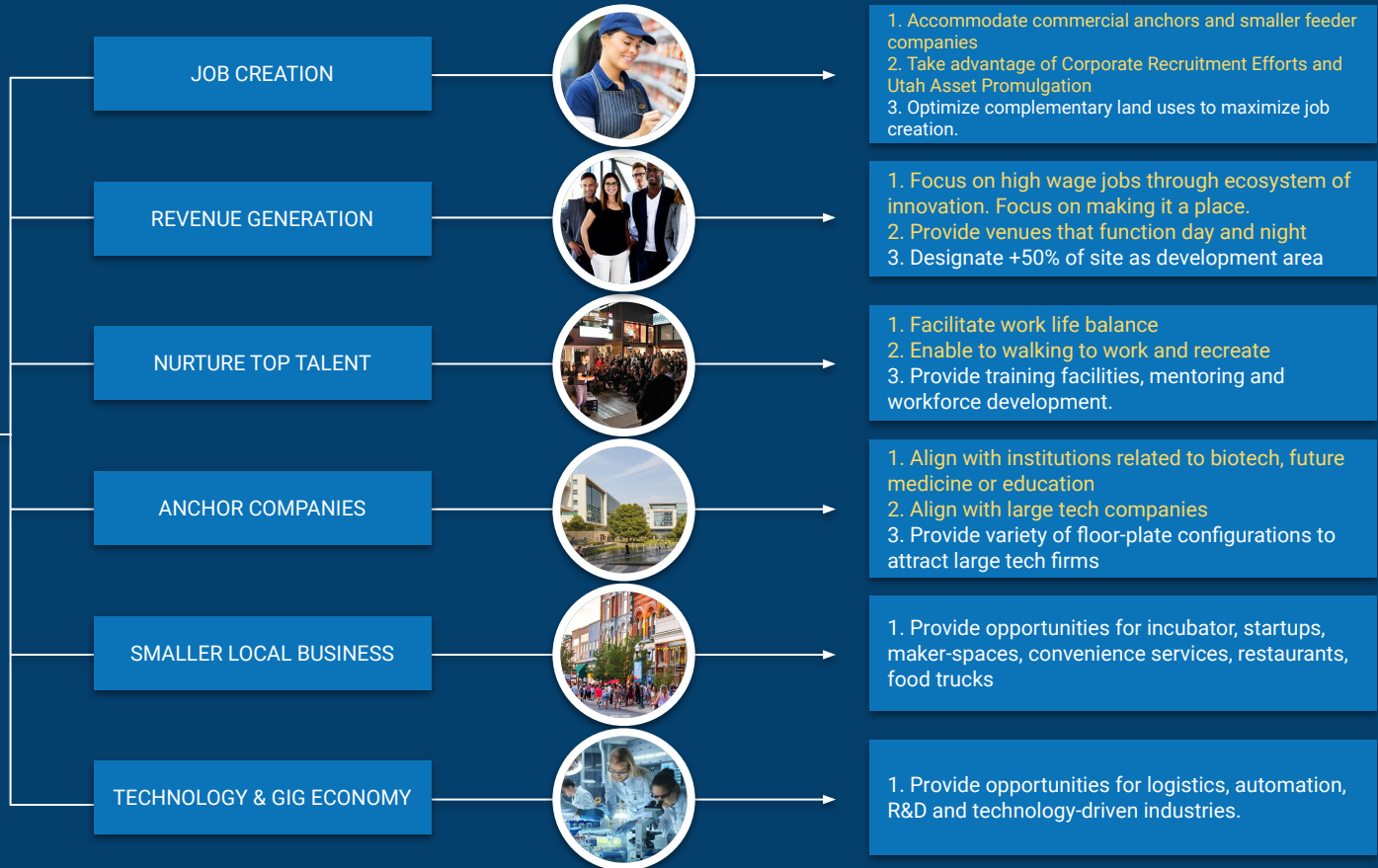
KEY VISION ELEMENT

PRINCIPLE

DESIGN, SUSTAINABILITY OR SMART CITY INITIATIVE



Promote enduring statewide economic development through **job creation**, workforce development, and **revenue generation**. Create a community that will attract and **nurture top talent** and outstanding **anchor companies**, as well as **smaller local businesses**.



KEY VISION ELEMENT

PRINCIPLE

INITIATIVES



Advance innovation by creating a place that promotes a **culture of creativity and ingenuity**, **attracts outstanding talent and investment**, promotes **solution-oriented research**, fosters the growth of promising early-stage companies, **eliminates regulatory barriers**, and facilitates interdisciplinary **industry and academic partnerships** to generate and commercialize new ideas.

SOLUTIONS-ORIENTED RESEARCH



1. Create collaboration hubs
2. Create an environment of research, experimentation, meaningful failure, refinement, craft and production

CULTURE OF CREATIVITY & INGENUITY



1. Provide access to creative affiliations
2. Focus on what Utahns are good at
3. Promote creativity and ingenuity through design and experiential qualities of the physical environment

ATTRACT OUTSTANDING TALENT AND INVESTMENT



1. Lower barriers and invite companies that have cultural diversity
2. Create scholarships, special programs, and tech summer camps

ELIMINATE REGULATORY BARRIERS



1. Utilize R&D Tax Credits and/or Affiliation(s) tax credit
2. Create a new set of management and production rules to reduce taxes and approval barriers.

DESIGN INNOVATION



1. Shared tools/resources could foster early stage development
2. Innovation must permeate all aspects of the project, from the master plan to the smallest detail

INDUSTRY & ACADEMIC PARTNERSHIPS



1. Develop areas of focus for The Point
2. Create unique alliances with Universities and industries
3. Create new programs with low bar for entry

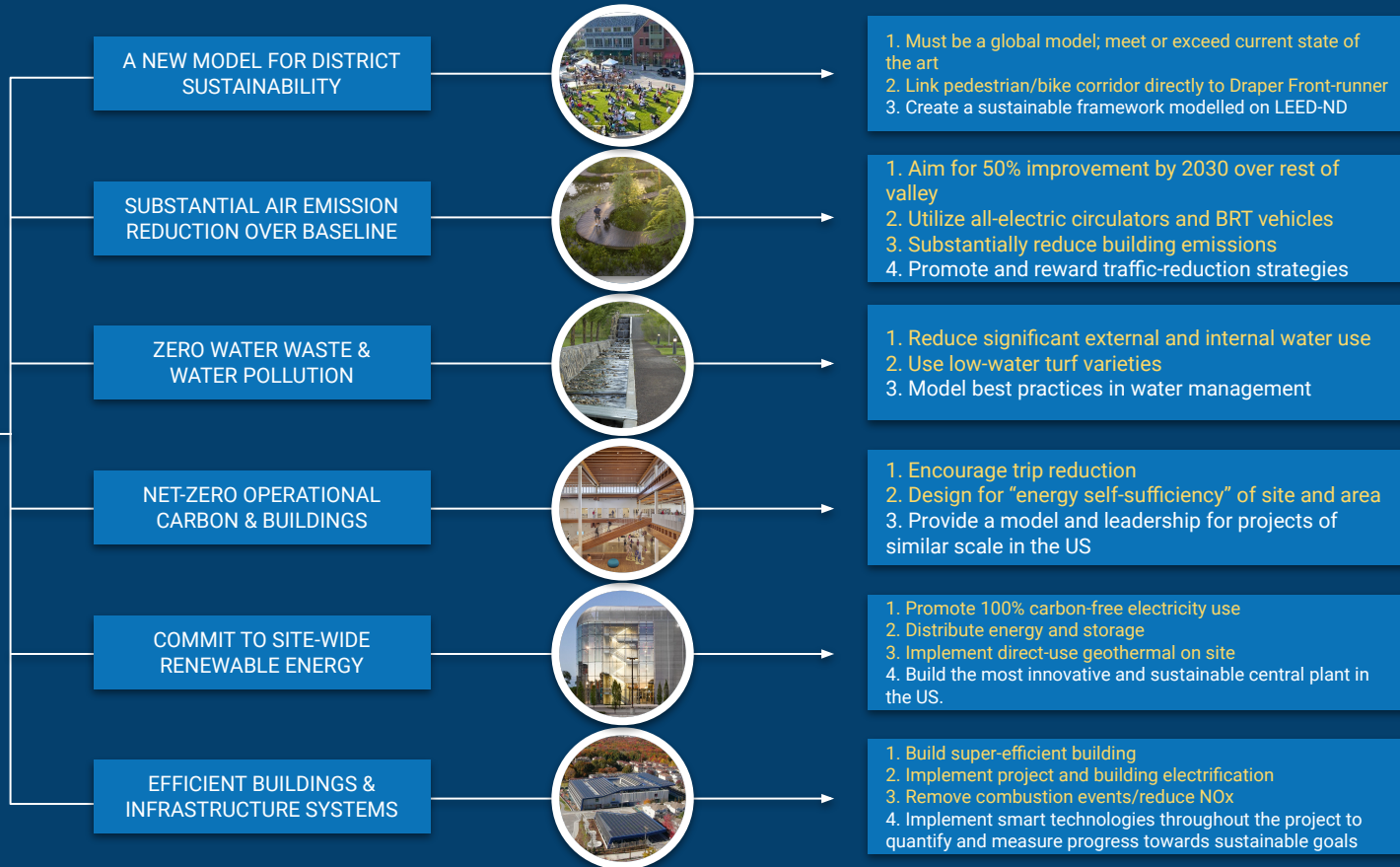
KEY VISION ELEMENT

PRINCIPLE

INITIATIVES



Create a **model of sustainable development** that, relative to traditional development, **significantly reduces air emissions** (including GHG), **water pollution, water and energy use**, and takes advantage of on- and off-site **renewable energy resources** (including an on-site geothermal resource). Explore a **net-zero-ready development**.



KEY VISION ELEMENT



Coordinate closely with others to ensure the development **fits well with regional plans and infrastructure**, advancing the interests of the broader community and not just the site. **Promote regional trail, transportation, and green infrastructure** connections through the area and facilitate thoughtful **regional growth**.

PRINCIPLE



DESIGN, SUSTAINABILITY OR SMART CITY INITIATIVE

- 1. Test transportation, economy, and air quality to provide best solution
 2. Have great examples of urban living
 3. Connect the Point to surrounding area and region
 4. Restore pre-settlement ecologies
- 1. Provide connections to outdoor features and amenities
 2. Overcome barriers in the transportation network to enhance connections
- 1. Create a model project for green infrastructure
 2. Connect to Jordan River through the site to the mountains
 3. Reuse all rainwater and stormwater
 4. Promote water conservation (eg. use smart water meters, native plants)
- 1. Create a new hub for the Wasatch Front - a 21st century CBD that is a model for the western United States
- 1. Invite multi-tenant universities and institutions
 2. Utilize research park/campus to broaden partnerships with other schools
 3. Create indoor and outdoor work spaces.
 4. Bring together the best minds in the State around design, technology, finance, economic growth, innovation and product development
- 1. Reference The Leonardo Museum - integration of science, technology, art, and nature.
 2. Promote a collective spirit of research, innovation, and collaboration that defines The Point's DNA

7. Smart City Framework Update

What is a Smart City?

A **smart city** is a city, district, or project that **collects and leverages data** to **1) operate more efficiently and 2) monitor performance metrics**.



Why Undertake a Smart City Program

Insights gained from that data are used to manage assets, resources and services efficiently; in return, that data is used to improve the operations across the city.

BUSINESS > TECHNOLOGY

San Francisco's trash bins get smart

To avoid overflow, sensor-based system to let city know when cans are full



Employees of Nordensise install a smart sensor in a trash bin at Sixth and Market streets in San Francisco in 2018, during a trial of the smart trash system. The smart sensors will be installed in 1,000 trash bins around the city starting in Spring 2019. (Courtesy of San Francisco Public Works)

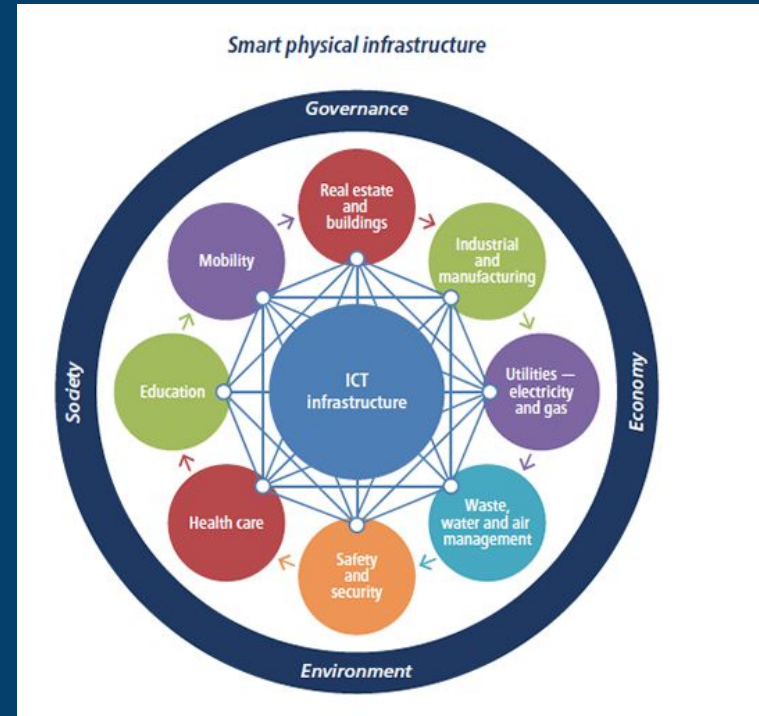
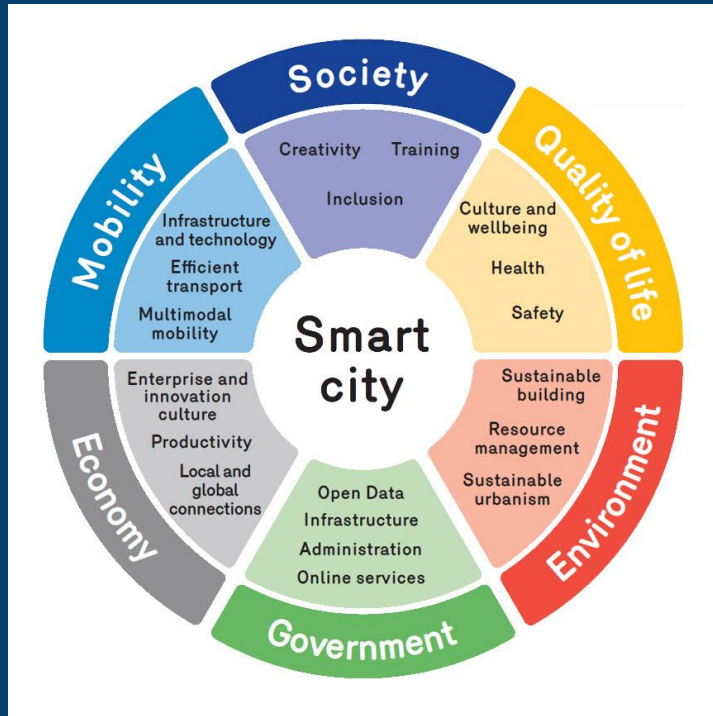


Harness the Power of Your City's Data

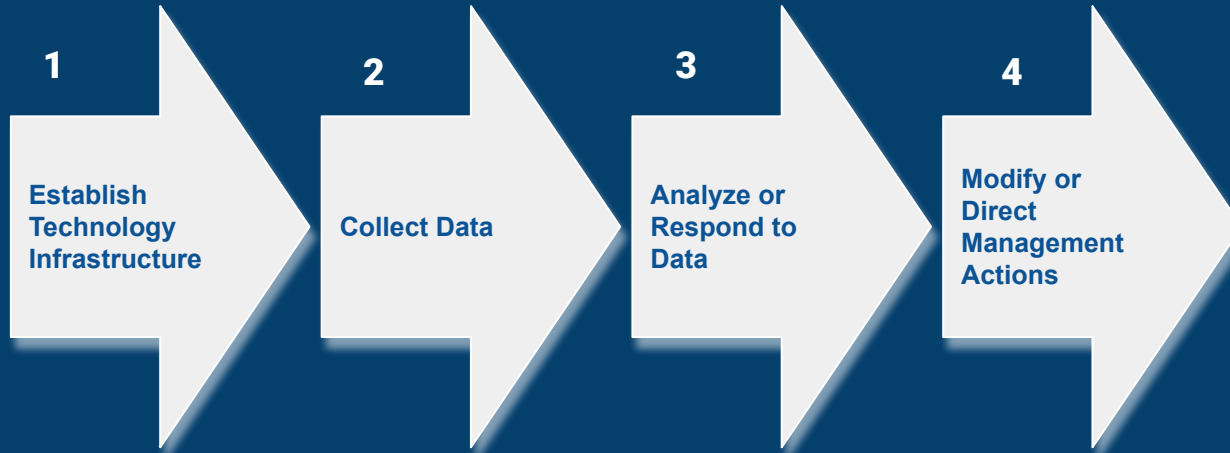
Cities are already offering innovative Smart City services to citizens and businesses by deploying sophisticated sensors, connected vehicles, IoT-enabled infrastructure and more. As cities begin to think about the next generation of applications that require vast amounts of real-time and resilient data, there is an opportunity for cities and industry to work together to develop a consistent approach to exchanging data.



A Variety of Organizational Options

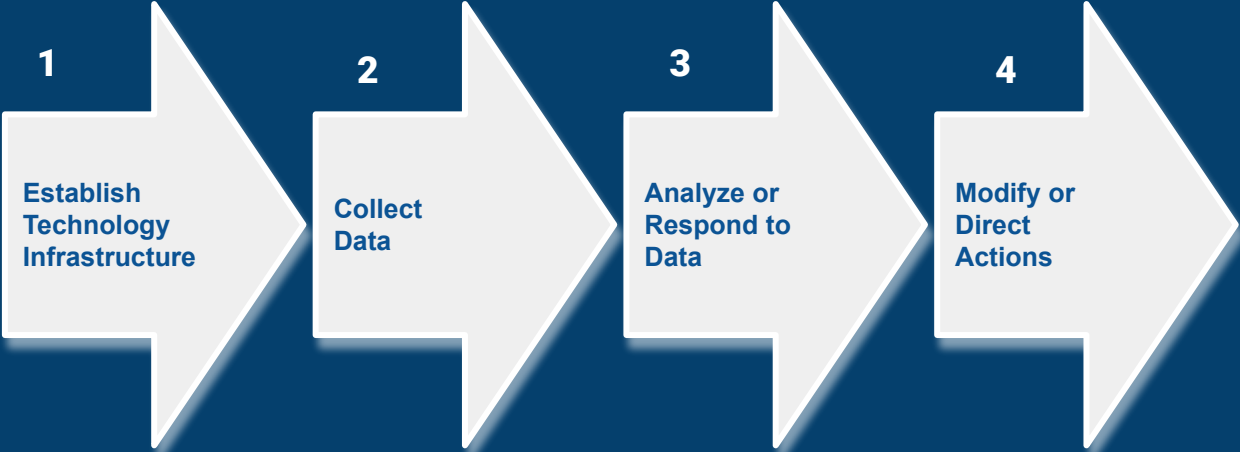


How Does it Work? Four Basic Steps



Data collected from citizens, devices, buildings and assets that is processed and analyzed to monitor and manage traffic and transportation systems, power plants, utilities, water supply networks, waste, crime detection, information systems, schools, libraries, hospitals, and other community services.

Primary Considerations



- Coordination
- Methodology
- Vendors
- Maintenance

- Anonymizing
- Processing
- Storing
- Collating

- Staff Expertise
- Prioritization
- Vendor Role

- Responsibility
- Cost of Action
- Compliance

Complementary Considerations



- Extents
- Privacy
- Components
- Management

- Disposal of Data
- Cost of Updates
- Obsolescence

Smart City Case Studies

If Smart Cities Had IQ's, Barcelona Would Be A Genius



BARCELONA, SPAIN
DIGITAL CITY



The Smartest City in the World

<http://ajuntament.barcelona.cat/estrategiadigital/en>

- CITY IN COMMON
 - Technology for social change and public sector innovation
- DEMOCRATIC CITY
 - Technology for a participatory, collaborative and transparent city
- CIRCULAR CITY
 - Technology for a new, more sustainable and efficient urban model
- CREATIVE CITY
 - Technology to promote invention, entrepreneurship and social innovation

Barcelona, Spain

Digital City

Open Data Platform

Data Collection System

Public Administration Innovation

Accessible Data

Digital Literacy

Technological Integration

Issue Focused

Digital Divide

Culture of Invention

Public Procurement

Start-up Culture

Social Interaction



Barcelona, Spain

INTERNET OF THINGS

500 kilometers of fiber optic cable

90% city to the home coverage

Free citywide wifi

670 wifi hotspots

19,500 connected smart meters

Residential smart waste bins

Digital bus stops

Parking sensor system

1,100 smart streetlights

Smart irrigation systems

44 interactive kiosks

Sentilo data dashboard

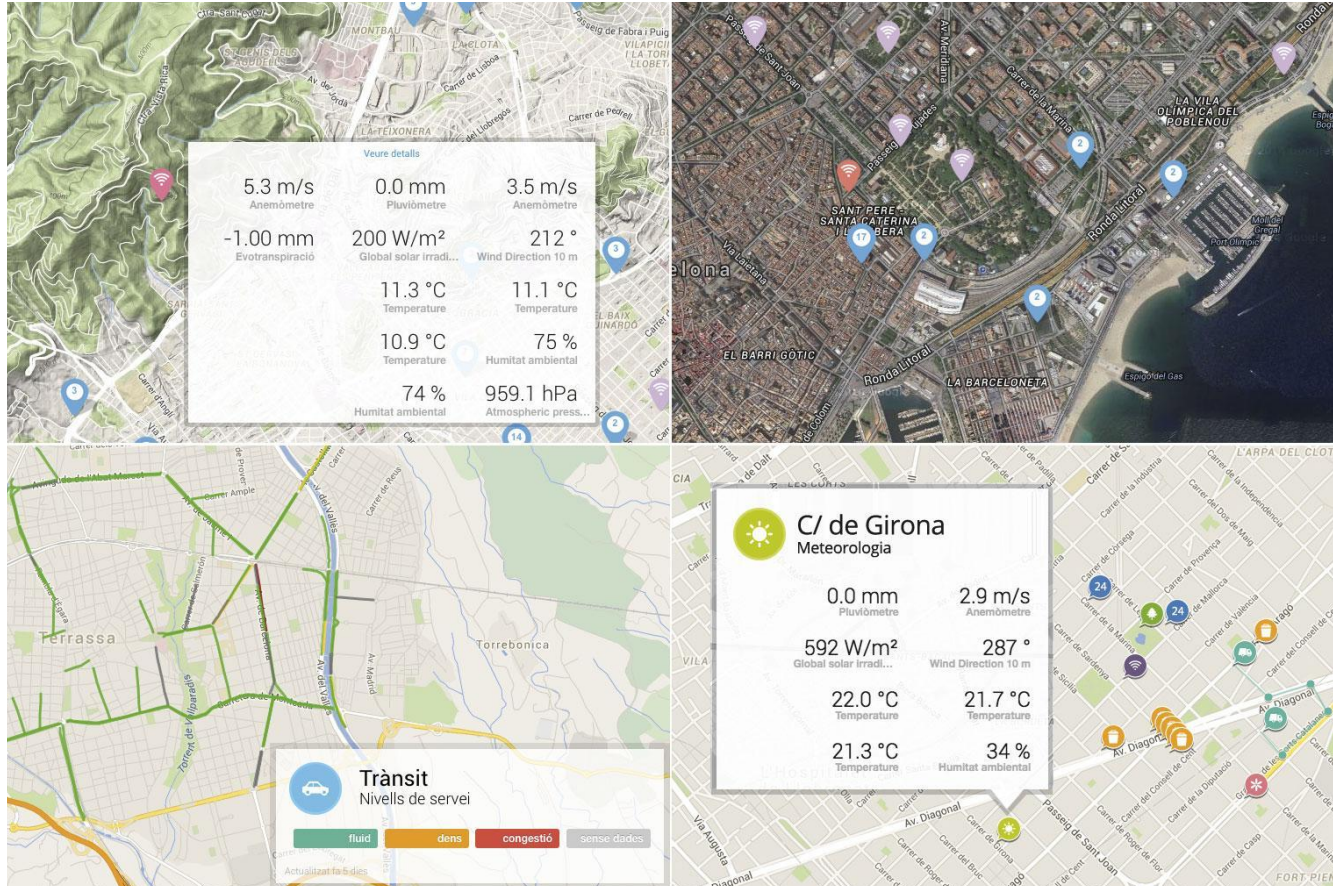
OUTCOMES

\$58 million annual water savings

\$37 million annual energy savings

\$50 million parking revenue

47,000 new jobs





22 Barcelona

<http://www.22barcelona.com/>

- \$250 million public investment to revitalize an urban industrial district
- Start-up village
- Innovation district
- Pilot programs

An urban renovation strategy. A new model of making city
The answer to a necessity: the knowledge economy



KANSAS CITY, MISSOURI
SMART CITY INITIATIVE

► CLOSER LOOK

WHAT DOES THAT DEVICE DO?

Kansas City's current smart city system includes 125 "smart" streetlights that can track pedestrian activity, sensors on the streetcar to improve traffic, 25 information kiosks and public Wi-Fi. The devices are connected through Sprint Corp.'s Wi-Fi network, which is bolstered by several "small cells" along the existing 2.2-mile streetcar line.

1 TRAFFIC LIGHT SENSOR

A traffic signal pre-emption receiver for emergency response service vehicles

2 SMART STREETLIGHTS

Streetlights that can track pedestrian activity

3 STREETLIGHT SENSORS

Streetlight nodes that help identify items such as obstacles blocking the streetcar

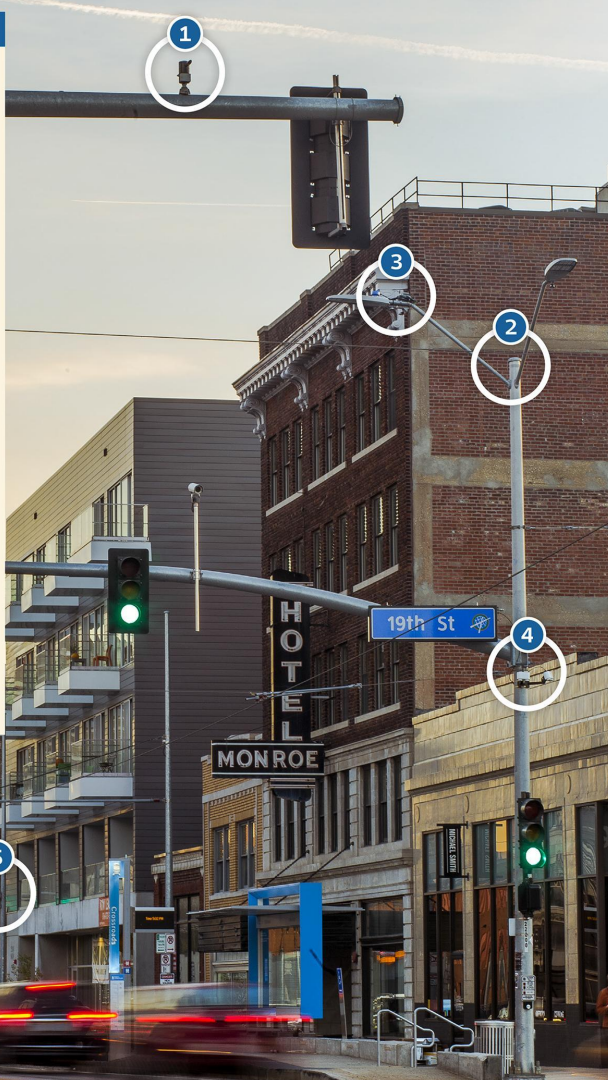
4 CROSSWALK SAFETY

A crosswalk sensor that warns pedestrians

5 PUBLIC WI-FI

A public Wi-Fi access point

SOURCES: Blake Miller, KCBJ research



Most Comprehensive Smart City Network in US

<http://kcmo.gov/smartcity/>

- \$15.8 million (\$12 million private and 3.8 million public) investment integrated with 2.2-mile streetcar starter line
- Leverage data for informed decision-making and performance management
- Nation's 1st Google fiber city
- Public-Private Partnership with Sprint and Cisco
- Living lab partnership to develop start-up businesses with open data



Kansas City Digital Roadmap

[https://data.kcmo.org/dataset/KC-Digital-Roadmap/
dw7j-pk8s](https://data.kcmo.org/dataset/KC-Digital-Roadmap/dw7j-pk8s)

- Digital Inclusion
- Open Government
- Engagement
- Industry
- Smart City

Kansas City, Missouri

Lean Government

Bridging the Digital Divide
Digital Literacy
High-Speed Internet Access

Open Data
Data Optimization
Public Service Delivery

Public Engagement
Mobile Connectivity
Citizen Satisfaction

Infrastructure Upgrades
Leverage Academia
Living Lab

Accountability & Transparency
Data-Based Decision Making
Digital City Hall



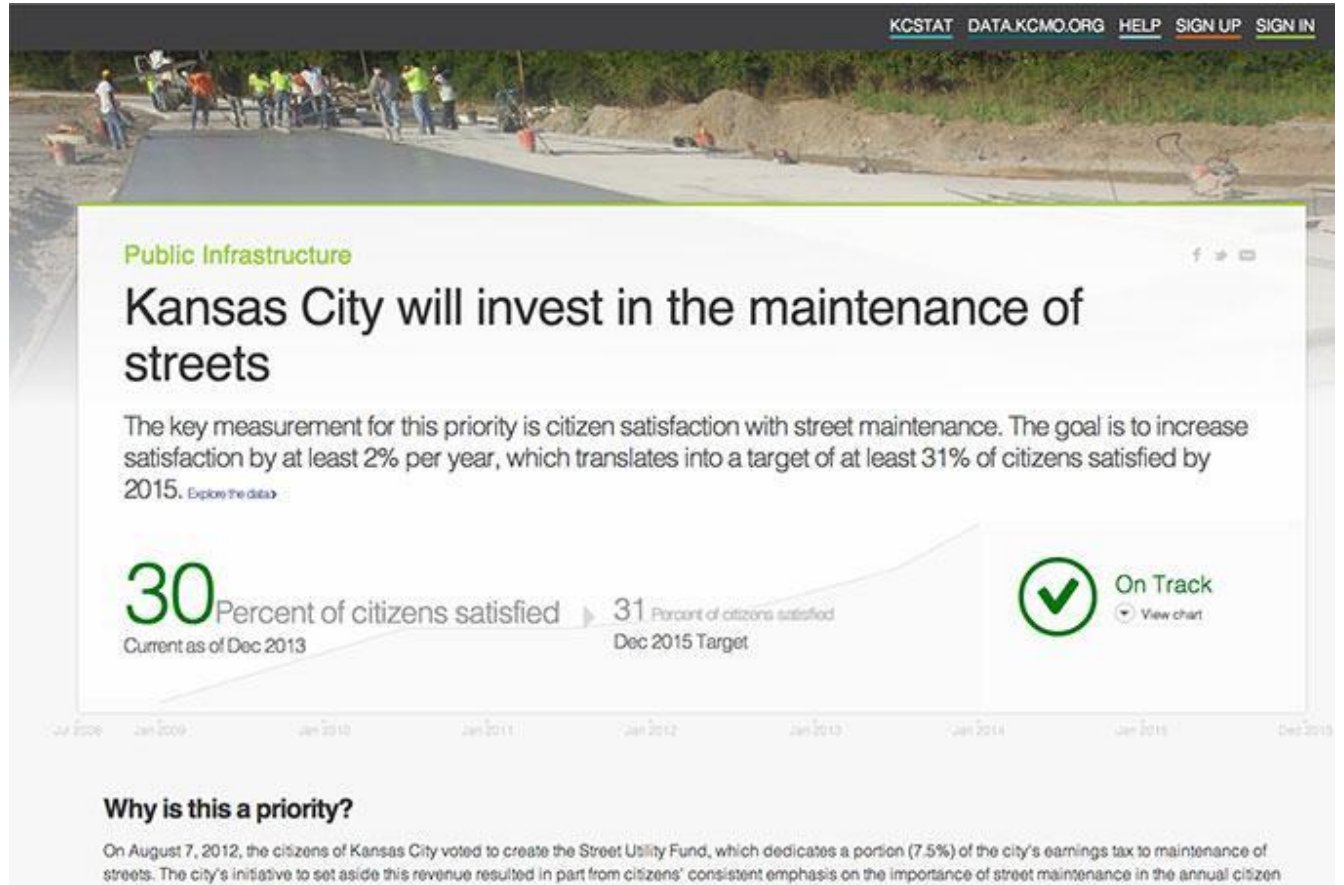
Kansas City, Missouri

INTERNET OF THINGS

- 50 block of free wifi
- 125 smart streetlights
- 125 heat & motion sensors
- 25 interactive kiosks
- Real-time parking status
- Real-time traffic speed
- Socrata data dashboard

OUTCOMES

- Currently monitoring





NEW YORK CITY, NEW YORK
LINK NYC



Smart City Open Platform of the Future

<https://www.link.nyc/>

- Will replace pay phone network with 7,500 interactive kiosks across all 5 boroughs
- Free gigabit wifi, emergency services, voice calls, and charging station
- Sensor bays collect real-time environmental data
- Map and access to other city information and services
- Partnership with City and CityBridge – a consortium of Intersection, Qualcomm and CIVIQ Smartscapes

Link NYC

Reactive City

INTERNET OF THINGS

7,500 interactive kiosks

5 connected community centers

Motion sensors

Environmental sensors

Auditory sensors

Opt-in location services (beacon)

OUTCOMES

\$0 cost to the City

\$500 million, 12-year franchise

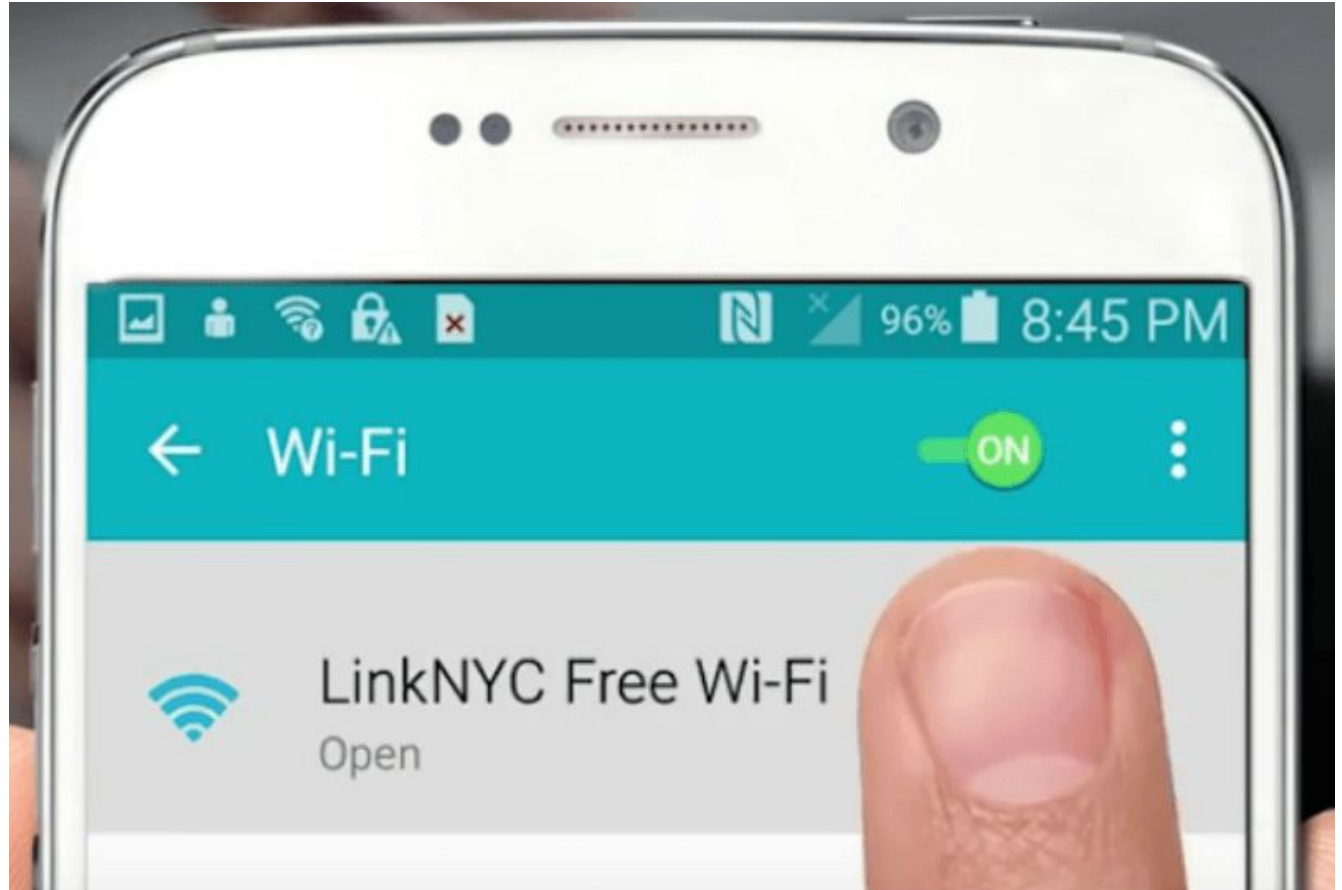
\$200 million digital infrastructure

20,000 new registrants per week

Nearing 1 million unique users

150 new jobs

System still being deployed (5%)





The City of the Future

<http://songdoibd.com/>

- \$40 billion, 6 sq km master planned “aerotropolis” connected to Korea’s Incheon airport
- Incheon Free Economic Zone
- 3.5 hours to 1/3 of the world’s population
- 8 Metro stations
- Complete streets
- \$35 million Cisco global innovation lab

Songdo IBD

Ubiquitous City

INTERNET OF THINGS

Pneumatic waste disposal system

Integrated control system

Telepresence interface

Dual-plumbing (purple pipes)

OUTCOMES

36,000 residents

60,000 employees

1.9 million sq m LEED-certified

3.25 sq m residential

3.7 million sq m commercial

900,000 sq m retail

240 hectares open space

1 million sq m public space

26 km bike paths

4 universities



Development Tranches

Connected Community




Tranche 2

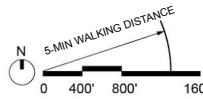
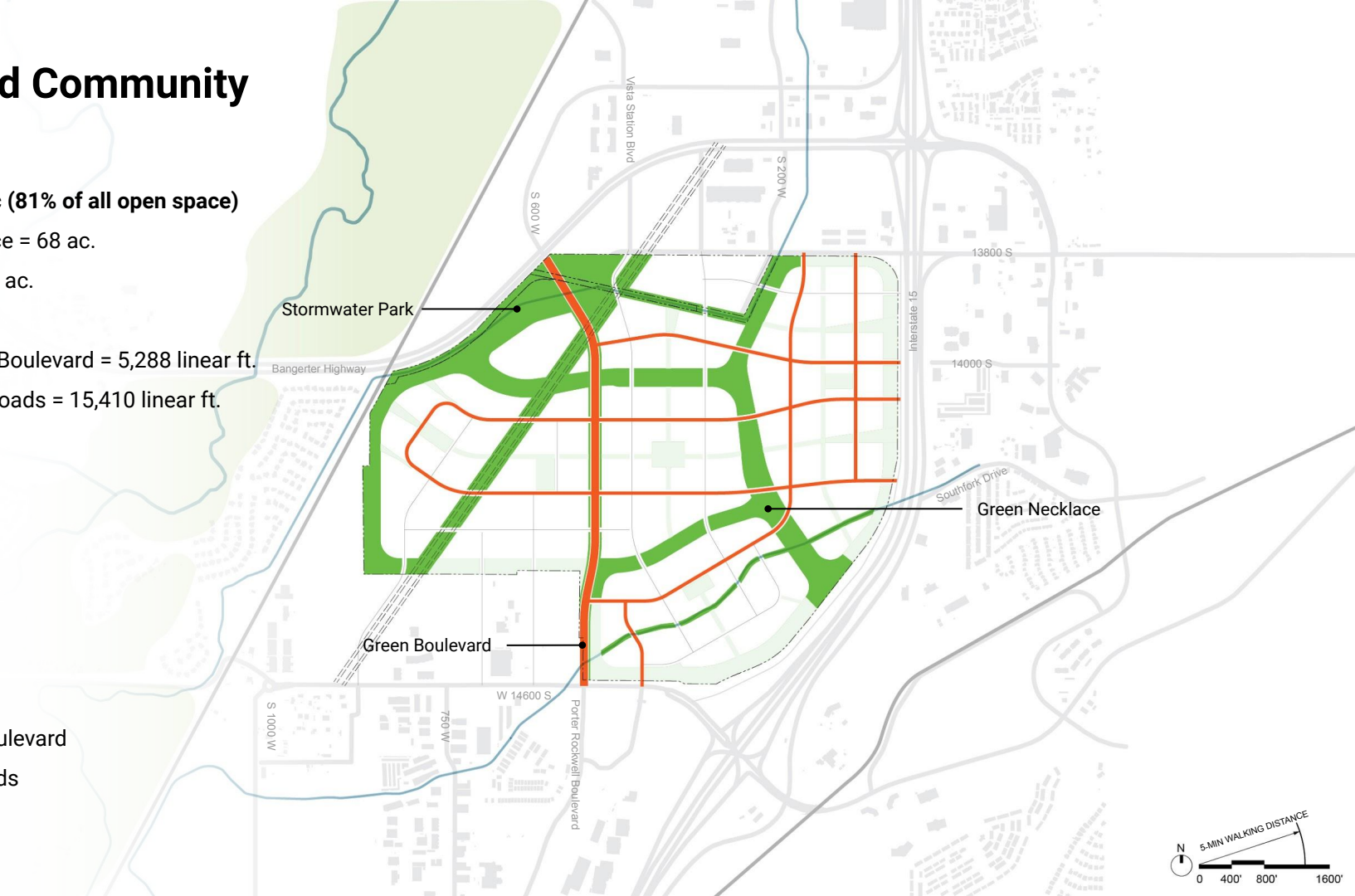
Open Space 122ac (81% of all open space)

- Open Space = 68 ac.
- Parks = 31 ac.

Roads

- 120' ROW Boulevard = 5,288 linear ft.
- 80' ROW Roads = 15,410 linear ft.

-  Open Space
-  120' ROW Boulevard
-  80' ROW Roads



Regional Hub

Tranche 2

Open Space 142ac (82% of all open space)

- Open Space = 53 ac.
- Parks = 15 ac.
- Sports Area = 49ac.

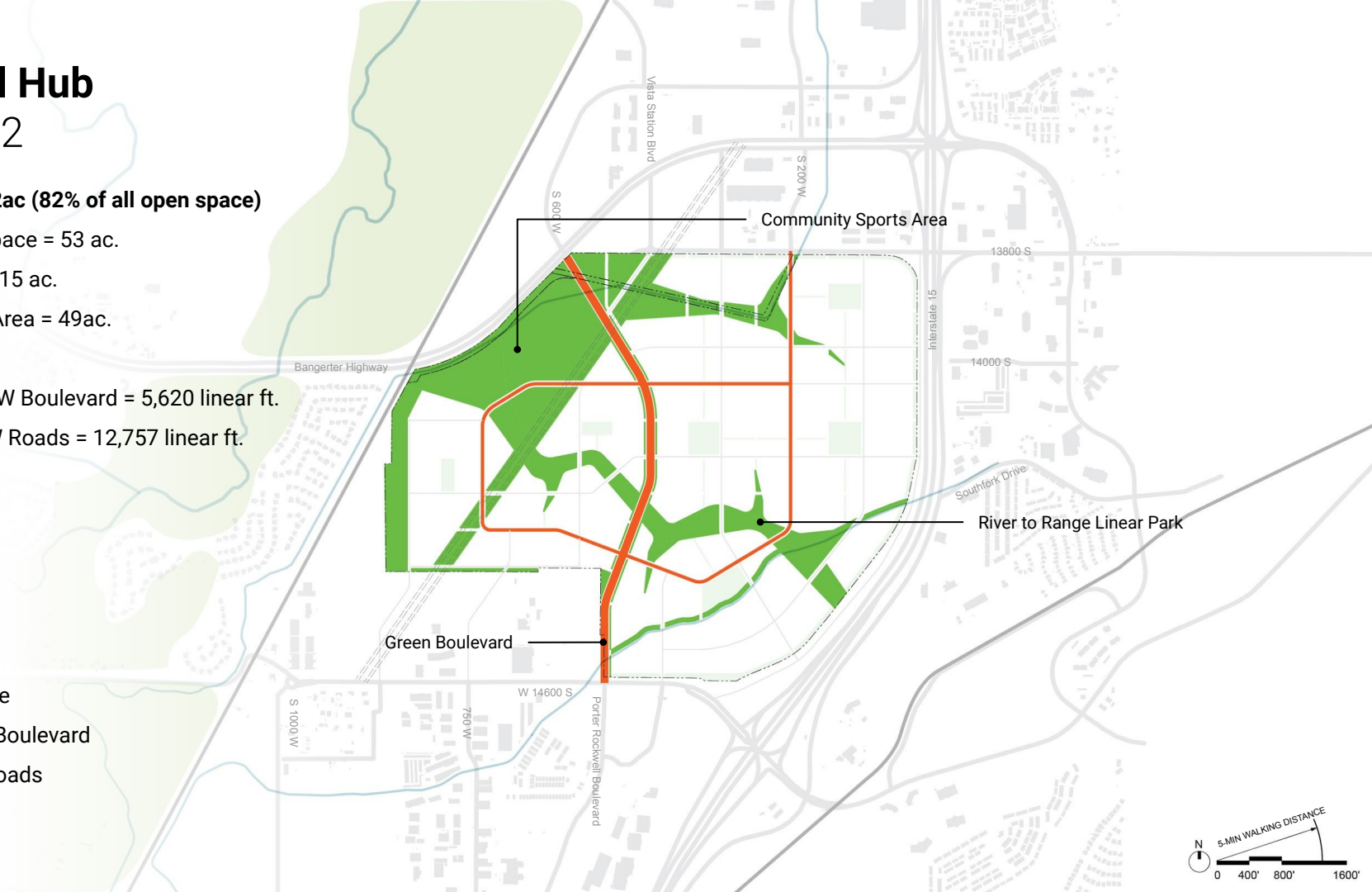
Roads

- 120' ROW Boulevard = 5,620 linear ft.
- 80' ROW Roads = 12,757 linear ft.

 Open Space

 120' ROW Boulevard

 80' ROW Roads



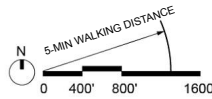
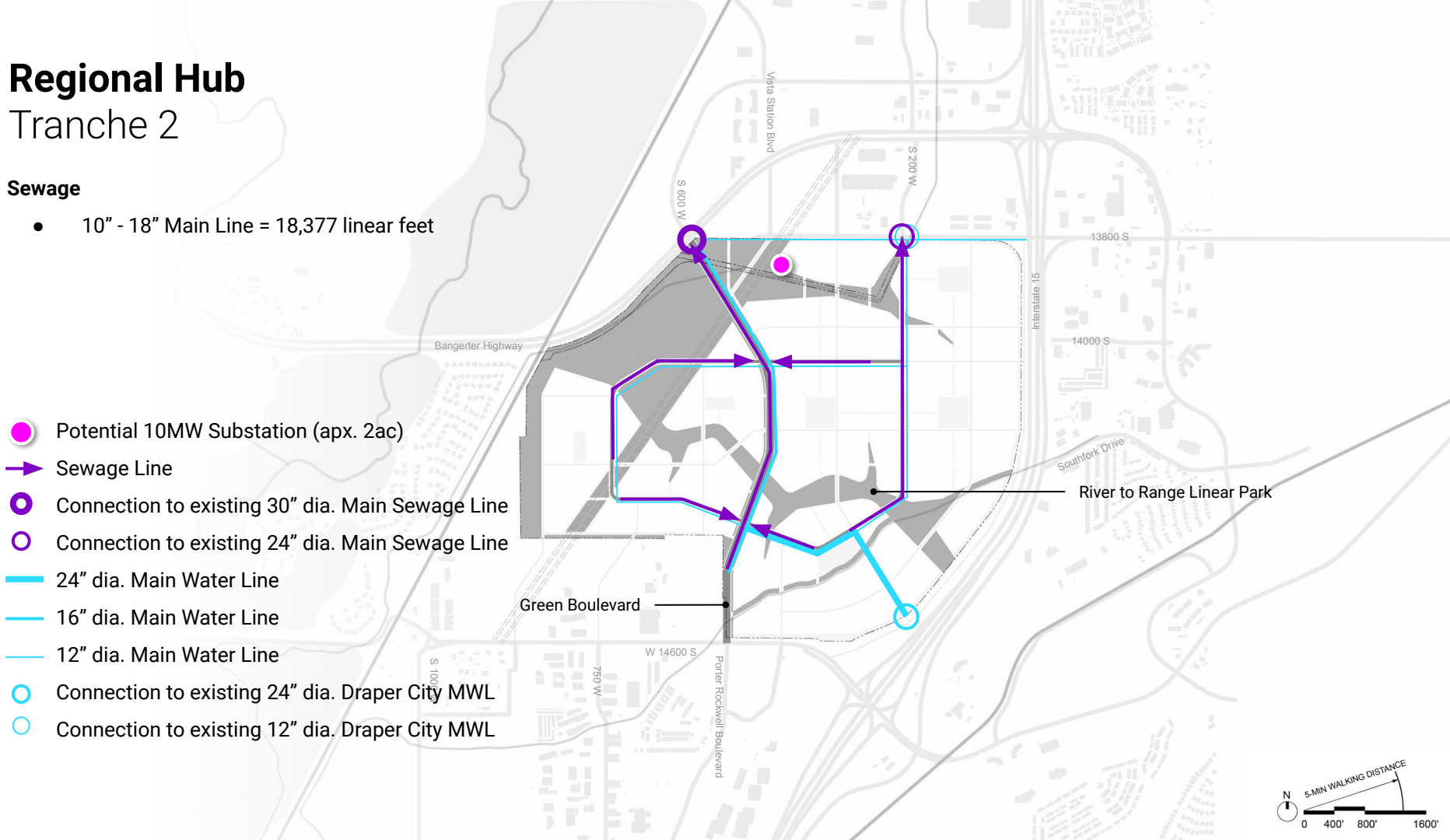
Regional Hub

Tranche 2

Sewage

- 10" - 18" Main Line = 18,377 linear feet

- Potential 10MW Substation (apx. 2ac)
- ➔ Sewage Line
- Connection to existing 30" dia. Main Sewage Line
- Connection to existing 24" dia. Main Sewage Line
- 24" dia. Main Water Line
- 16" dia. Main Water Line
- 12" dia. Main Water Line
- Connection to existing 24" dia. Draper City MWL
- Connection to existing 12" dia. Draper City MWL



Economic Catalyst

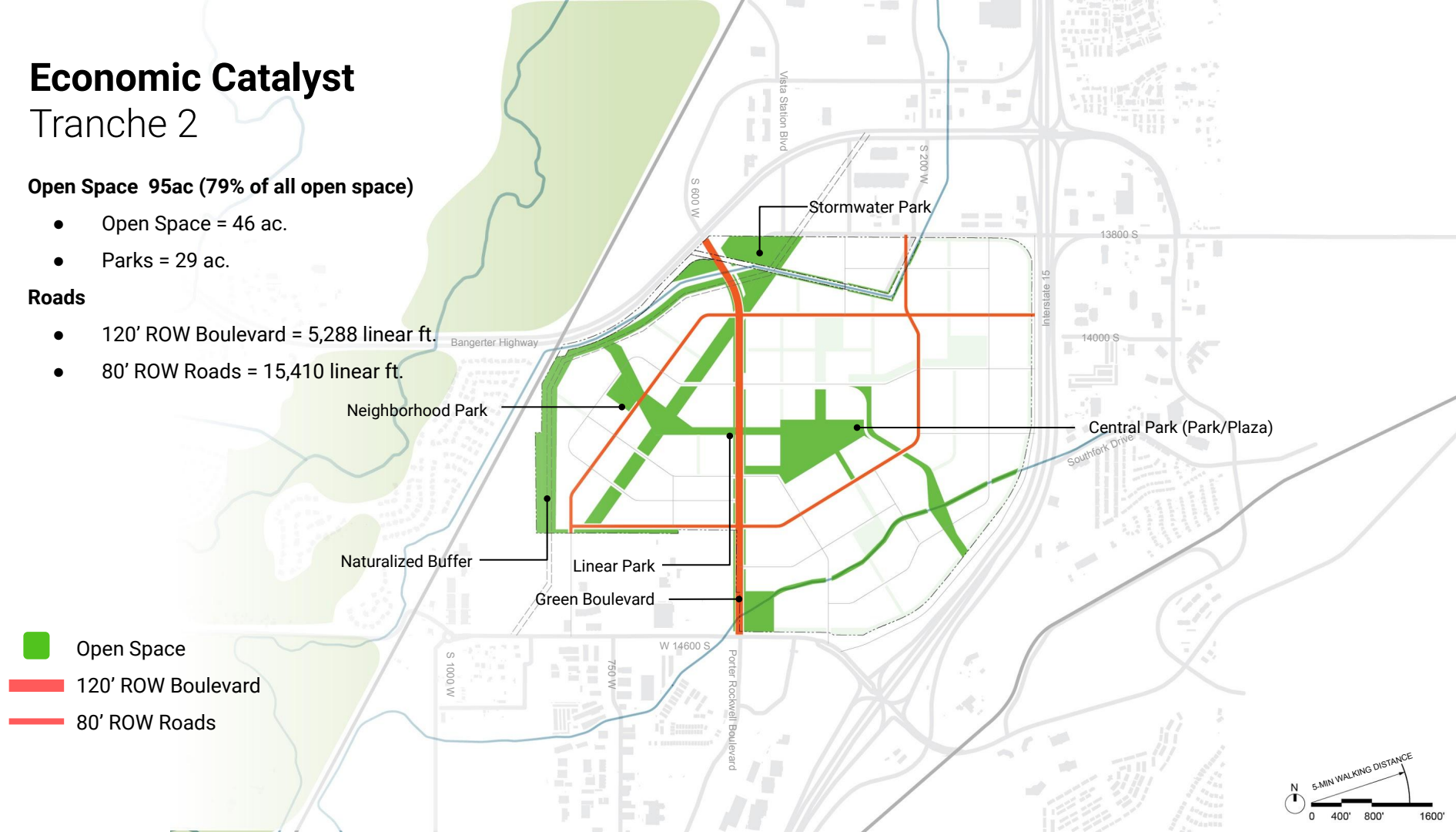
Tranche 2

Open Space 95ac (79% of all open space)

- Open Space = 46 ac.
- Parks = 29 ac.

Roads

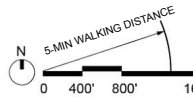
- 120' ROW Boulevard = 5,288 linear ft.
- 80' ROW Roads = 15,410 linear ft.



Open Space

120' ROW Boulevard

80' ROW Roads



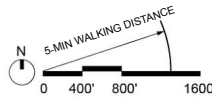
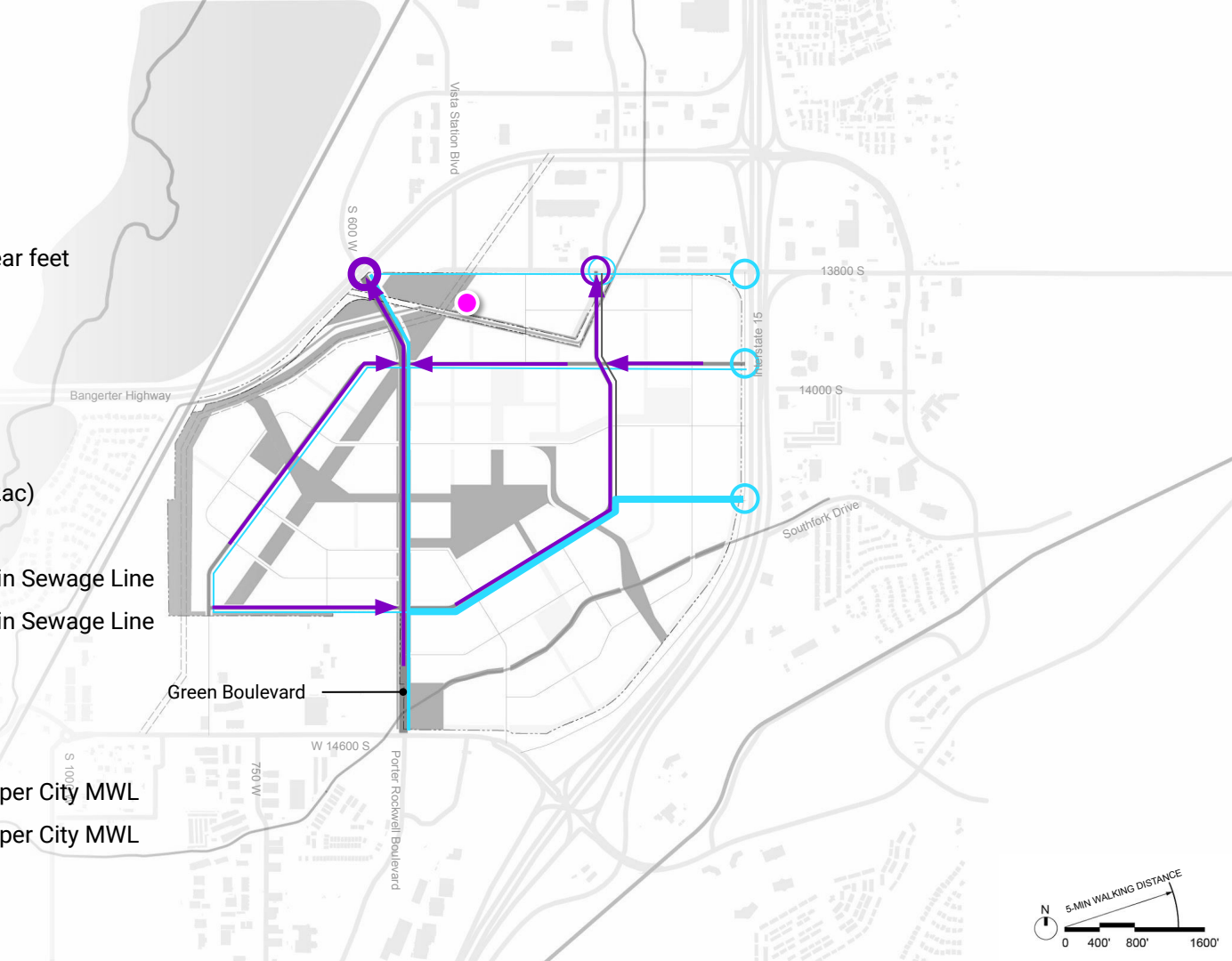
Economic Catalyst

Tranche 2

Sewage

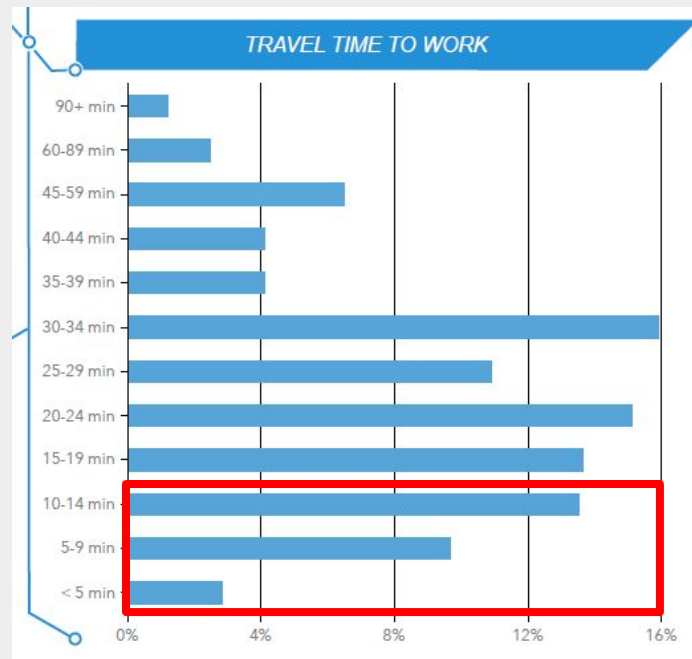
- 10" - 18" Main Line = 20,698 linear feet

- Potential 10MW Substation (apx. 2ac)
- ➔ Sewage Line
- Connection to existing 30" dia. Main Sewage Line
- Connection to existing 24" dia. Main Sewage Line
- 24" dia. Main Water Line
- 16" dia. Main Water Line
- 12" dia. Main Water Line
- Connection to existing 24" dia. Draper City MWL
- Connection to existing 12" dia. Draper City MWL



What are the commuting characteristics of the area today?

- Because so few white collar jobs are available in the immediate vicinity, **most residents in the area travel long commutes** to either downtown Salt Lake City or Provo for work.
- As a result, **commutes are overwhelmingly by car.**
- There are very few walkable environments with strong employment options in the area, suggesting **opportunity to create a walkable destination.**



Walkability

1-Mile Catchment

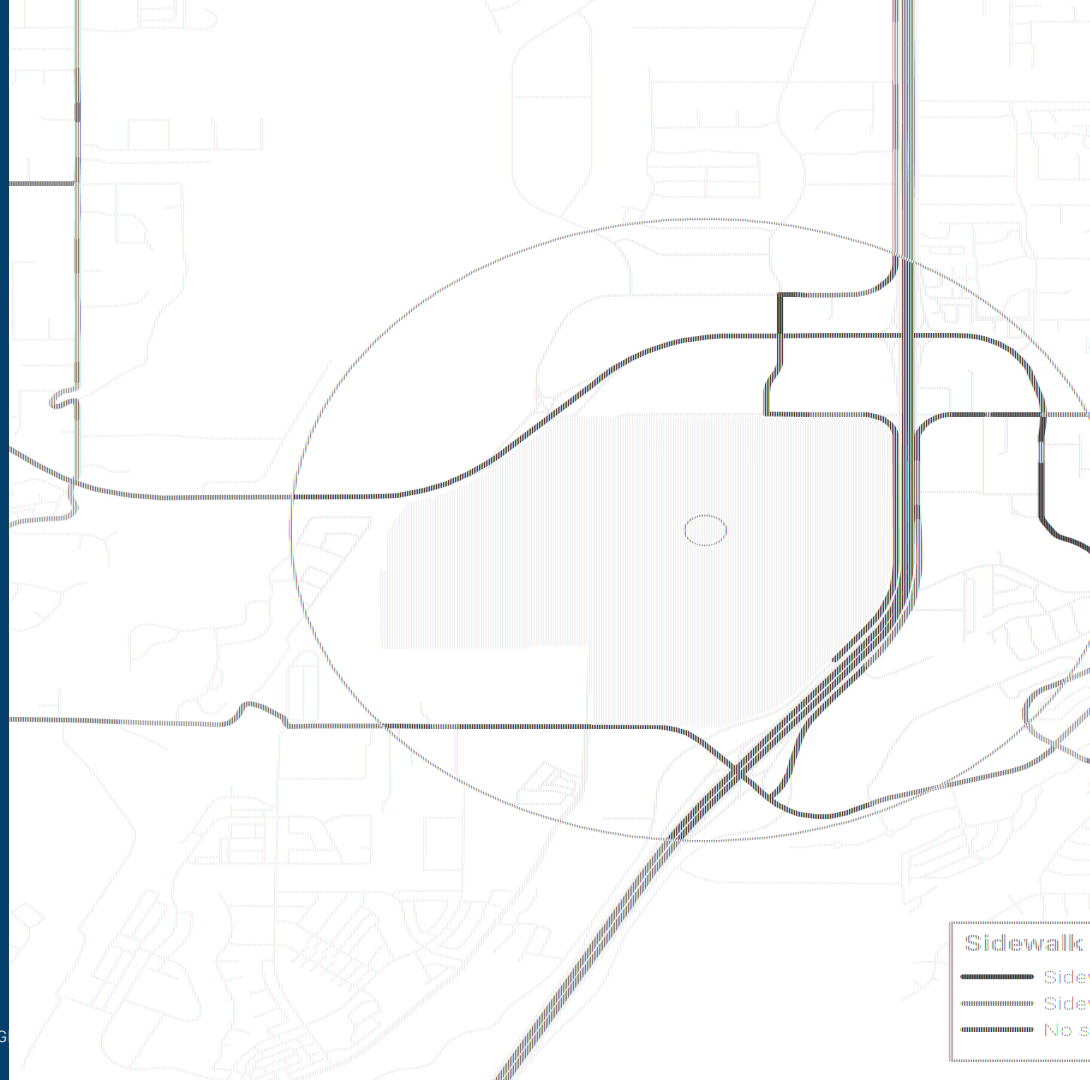
Key Observations:

Existing sidewalk network is intermittent with major gaps. Sidewalks in many areas lack buffer and trees between people walking and fast moving cars. Very long distances between marked crosswalks. Distance between destinations acts as a barrier to walkability.

Some more recent development includes better street design and site layout and are bringing destinations closer together.

Master Plan Implications:

1. Require a complete, high-quality sidewalk network to make walking to nearby destinations viable.
2. Need new crossings and more direct connections to surrounding destinations.



Bikeability

1-Mile Catchment

Key Observations:

Existing on-street bike infrastructure insufficient to make biking safe and comfortable for people of all ages and abilities given vehicle speeds and volumes.

Major intersections, highway on/off ramps, and underpasses throughout the area all create conflict points. Lack of grid street network and distance between intersections create indirect routes.

Master Plan Implications:

1. Must enhance existing infrastructure to make biking safe for people of all ages and abilities.
2. Need new crossings and connections to create direct routes to surrounding destinations.
3. Need new access points to more directly connect to surrounding trails.

