

# Cheyenne Lincolnway Placemaking Downtown Pedestrian and Urban Design Plan Phase I



AUGUST 2013



Fehr + Peers



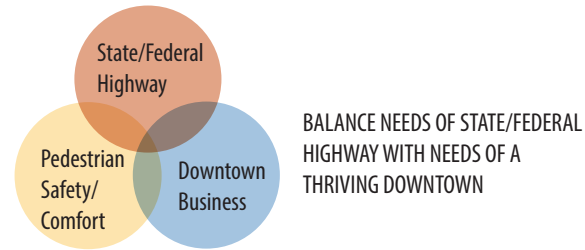
**Fehr + Peers**

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# INTRODUCTION

## PROJECT GOALS AND OBJECTIVES

1. Activate ground floors to inspire business development. This will be done by;
  - Improving the overall character and 'sense of place';
  - Creating outdoor gathering and seating areas and;
  - Utilizing alley connections where appropriate
2. Improve comfort and safety for pedestrians
  - Expand sidewalks where possible
  - Develop 'edge' at pedestrian spaces
3. Balance needs and traffic demands of Federal/State Highway with needs of a thriving downtown
4. Highlight/Celebrate history of Lincolnway
5. Create an environment to inspire more diverse land-uses



## PROJECT CRITERIA

1. Accessibility
2. Visibility and effective lighting for safety
3. Facilitate safe pedestrian movement
4. Community identity and 'sense of place'
5. Respect and celebrate historic context
6. Allow for flexibility and change
7. Capacity for gathering and event areas
8. Year round appeal and use
9. Ease of maintenance
10. Create balance of vehicular and pedestrian spaces
11. Support and stimulate business growth

## PROJECT CHARACTER

The images below reflect generalized aspects of the project character that are desirable including enhanced pedestrian streetscape conditions, a consistent street tree canopy, intersection/bulbout enhancements, medians along streetscapes, pedestrian lighting and safety enhancements and design elements from Downtown Cheyenne and the Depot Plaza at Lincolnway and Capitol Ave.



# PROCESS

## STAKEHOLDER INTERVIEWS AND WORKSHOPS

Design concepts within this document were collaboratively developed through a process of stakeholder interviews and discussions, walk throughs and workshops incorporating input from the City of Cheyenne Staff, MPO Staff, WYDOT Staff, Boards and Commissions members and property owners. Beyond regular meetings with MPO and City Staff, the stakeholder and public involvement process is represented below.

### SITE WALKTHROUGH - STAKEHOLDERS AND MPO/CITY STAFF

The process began with a series of individual discussions and a site walk-through from which feedback was incorporated into preliminary issues and opportunities diagrams and image boards reflecting project character and examples. This material became the foundation for the first workshop.

### WORKSHOP 1

Stakeholder/public meeting to review project goals, purpose, issues and opportunities diagrams, with visual preferencing exercise to begin to establish character preferences.

#### Focus

1. Early in project process - feedback on opportunities, issues, concepts.
2. Focus on pedestrian realm/traffic and potential to improve safety, comfort, and 'sense of place'.
3. Parking - assuming no net change.

### WORKSHOP 1 SUMMARY COMMENTS

1. Celebrate Lincolnway Anniversary.
2. Tie with Westedge Project.
3. Like outdoor gathering/sense of place.
4. Medians on Lincolnway could be replicated.
5. Free right turn at Lincolnway from Warren unsafe.
6. Median should - unify north and south sides of Lincolnway.
7. Consider pedestrian safety during events.
8. Left turn at Capitol and Lincolnway during events is an issue.
9. Like idea of extending the plaza space on to Capitol Ave.
10. Like idea of enhancing alleyways.
11. Diagonal parking should be explored on Carey, Pioneer or Thomes. Maybe back in diagonal parking?
12. Need for benches/seating and bike racks is critical.

### WORKSHOP 2

Community meeting, design concept workshops identifying proposed alternative with open discussion and live survey polling results.

#### Focus

1. Feedback on alternative design concepts
2. Feedback on project details, i.e. lighting, seating, street trees, etc.
3. Determine preferred alternative.

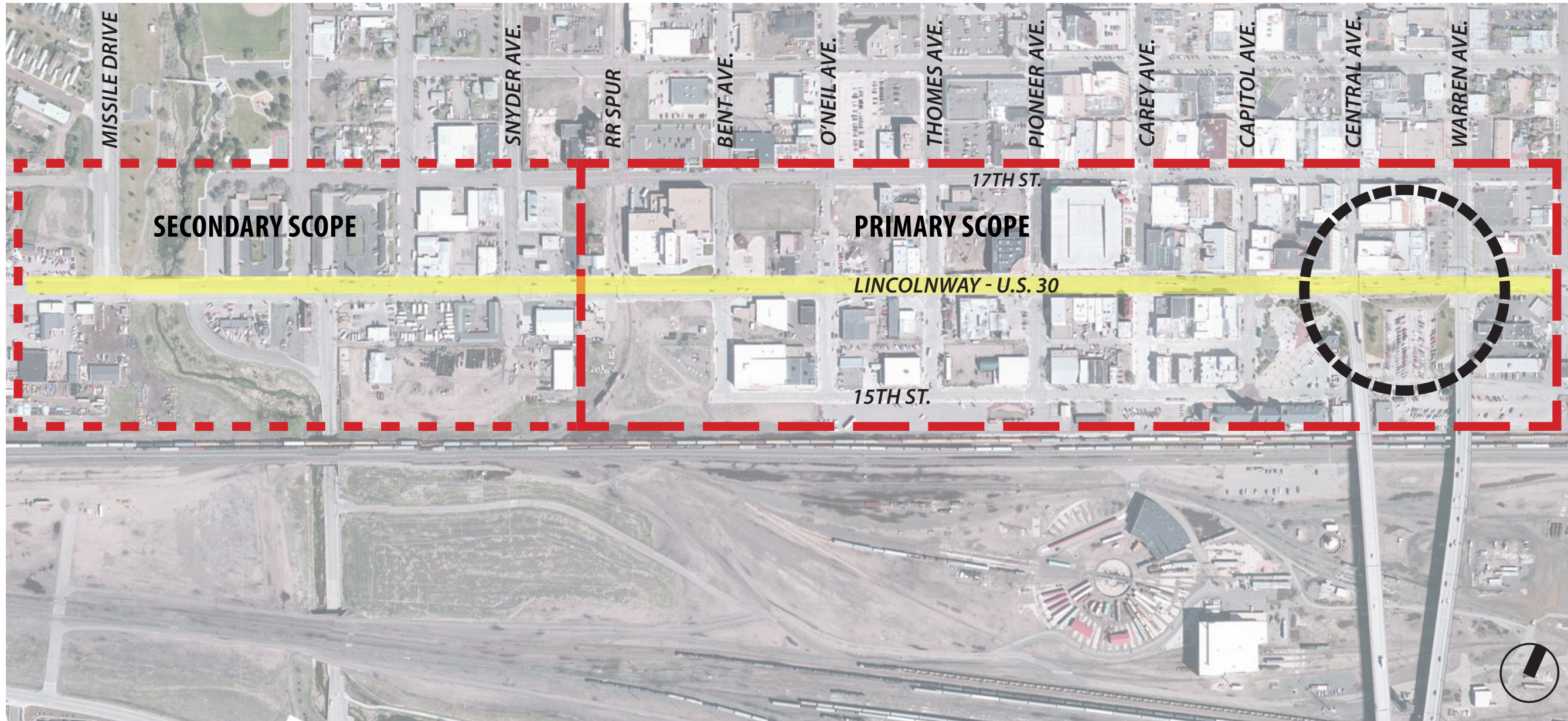
### WORKSHOP 2 SUMMARY COMMENTS

The results of the survey from Workshop 2 is provided in the Design Alternatives section of this document.

### FARMERS MARKET AND ON-LINE SURVEY

The survey provided during Workshop 2 was also provided during a Farmers Market event at the Depot Plaza as well as on-line. Results of the survey are combined with Workshop 2 results and provided in the Design Alternatives section of this document.





**SECONDARY SCOPE**

The secondary scope of the project extends along Lincolnway (U.S. 30) from the railroad to Missile Drive, approximately 1/3 of a mile in length. This area has potential to extend the character of downtown streetscapes, although existing land uses are more industrial/commercial in nature.

**PRIMARY SCOPE**

The primary scope of the project extends along Lincolnway (U.S. 30) from Warren Ave to the railroad, approximately 1/2 of a mile in length. Within this area, the Depot Plaza and existing Downtown Core play a key role in the character and uses that influence streetscape design.





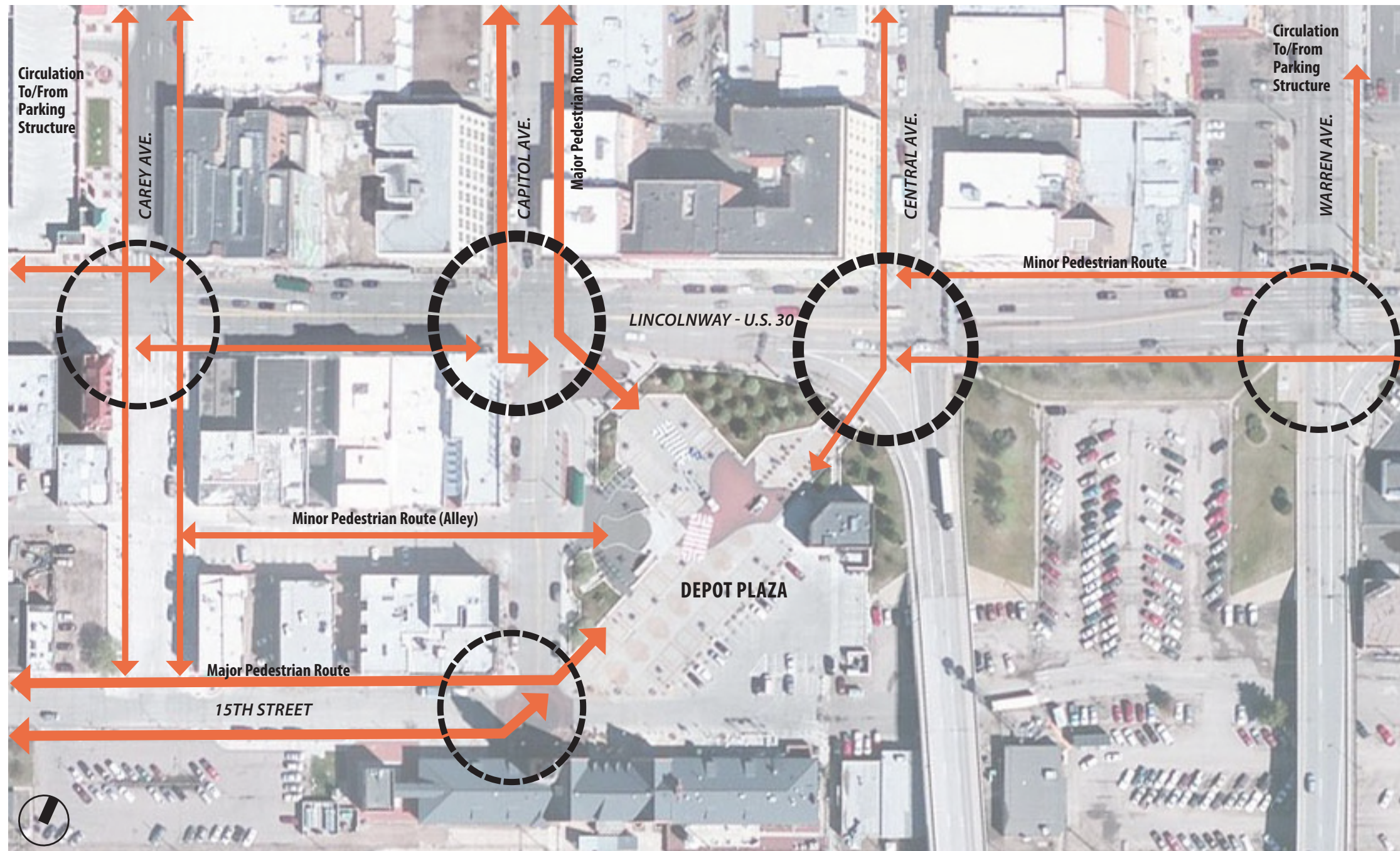
Lincolnway (U.S. 30) runs in an east-west through the historic downtown of Cheyenne. At the project's eastern edge I-180 feeds traffic into the downtown area. Along the southern portion of the site the Union Pacific Railroad (UPRR) runs. Crow Creek and natural area surrounding the creek make up the western edge of the project boundary.

Opportunities for enhanced gateway conditions exist at the intersection of Warren/Central and Lincolnway near the Depot Plaza and at Bent Ave. near the intersection of Lincolnway and the future West Edge project.

Potential for redevelopment exists to the west of Pioneer with the goal of expanding the Downtown Core to the west. Intersections at all north-south streets should be enhanced in order to facilitate safe and effective pedestrian crossings throughout the project extents.

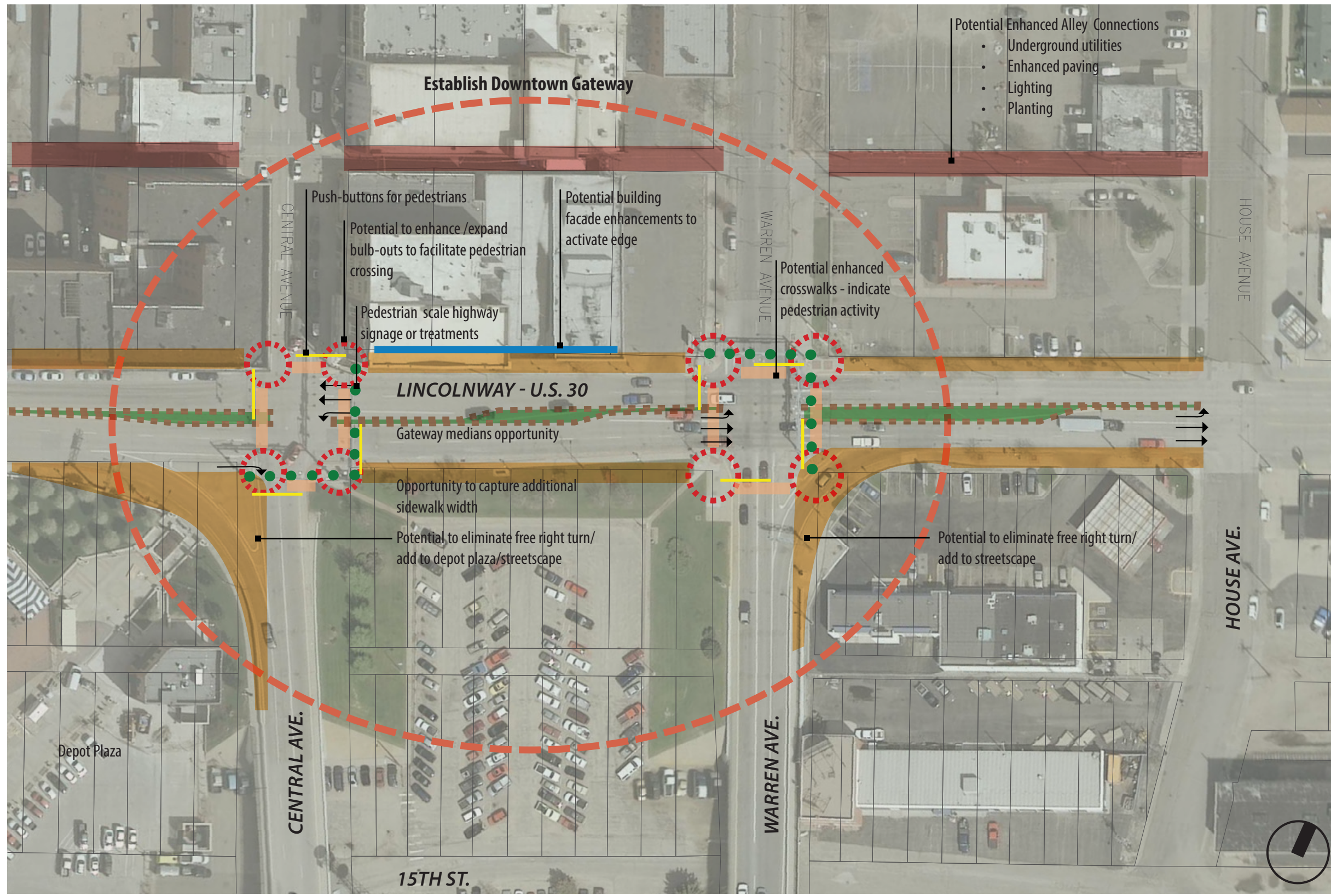
## DESIGN INFLUENCES





During public events at the Depot Plaza pedestrian traffic flows from the north along Capital Ave. and Central Ave. Pedestrian flow from the west along 15th Street is another key factor to consider for events. The existing parking structure at Lincolnway and Carey Ave. feeds additional pedestrian flow from the north and along Lincolnway. This north-south movement implies a need for a potentially enhanced alley connection from Carey Ave. to Capitol Ave. as an additional pedestrian corridor with the potential for event use with vendor tents along the alley.



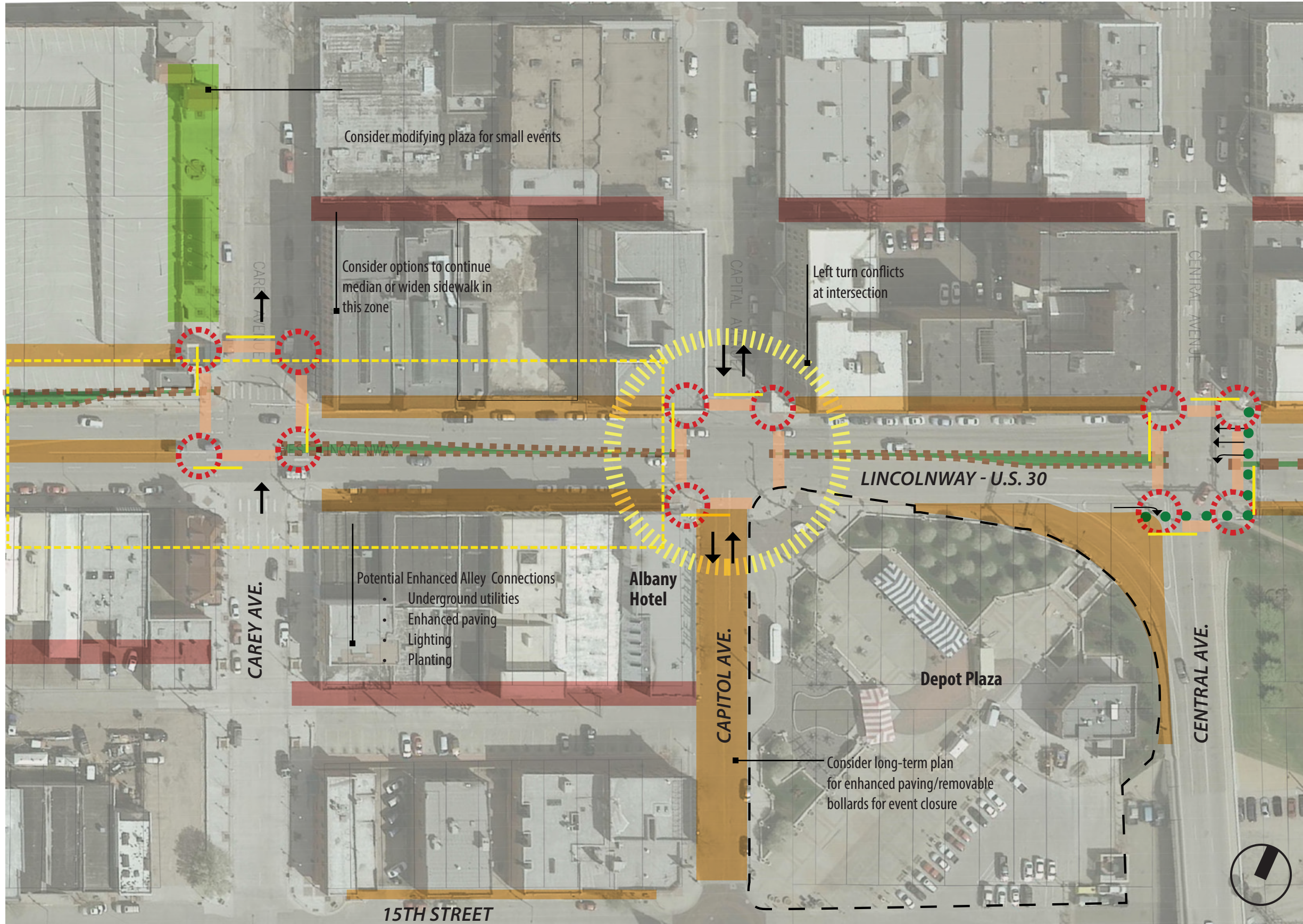


- QUESTIONS**
1. Should existing bulbouts be improved?
  2. Are medians appropriate as gateway element?
  3. Should sidewalks be improved/widened if possible?
  4. Should alleys be enhanced?

**LEGEND-  
POTENTIAL STRATEGIES AND OPPORTUNITIES**

- Potential To Enhance Streetscape**
- Street trees
  - Lighting enhancements
  - Enhanced paving
  - Widen sidewalks if possible
- Potential To Enhance Bulbouts**
- Planting
  - Seatwalls
  - Paving
  - Increase width if possible
- Potential Median**
- Replication or variation of existing design
  - Minimal planting
  - Narrow trees where possible
- Potential Enhanced Alley Connections**
- Underground utilities
  - Enhanced paving
  - Lighting
  - Planting





- QUESTIONS**
1. Should left turns continue to be allowed onto capitol?
  2. Are medians desirable west of capitol?
  3. Should sidewalks be improved/widened if possible?
  4. Should capitol be improved near depot plaza?

**LEGEND-  
POTENTIAL STRATEGIES AND OPPORTUNITIES**

- Potential To Enhance Streetscape
- Street trees
  - Lighting enhancements
  - Enhanced paving
  - Widen sidewalks if possible

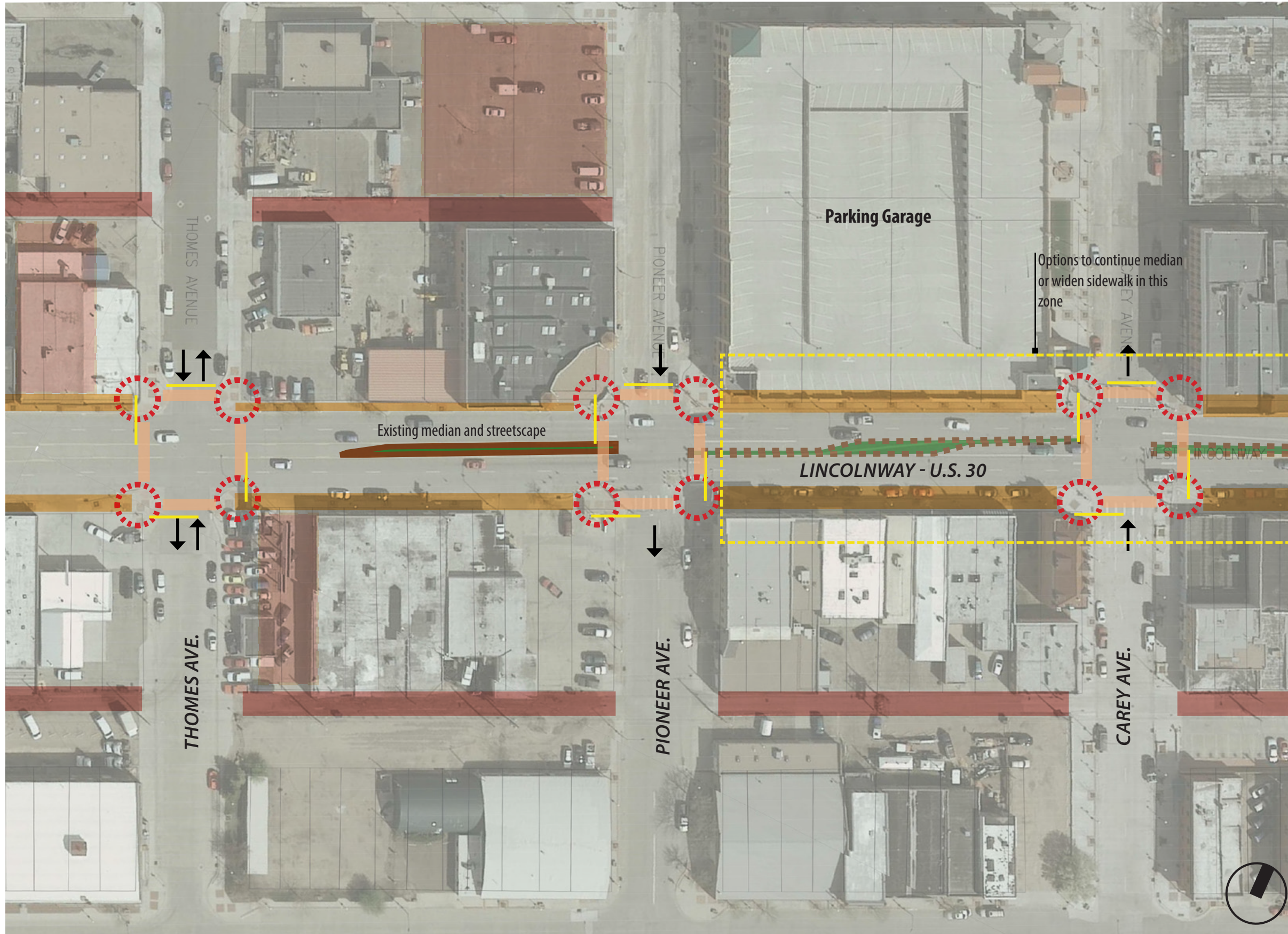
- Potential To Enhance Bulbouts
- Planting
  - Seatwalls
  - Paving
  - Increase width if possible

- Potential Median
- Replication or variation of existing design
  - Minimal planting
  - Narrow trees where possible

- Potential Enhanced Alley Connections
- Underground utilities
  - Enhanced paving
  - Lighting
  - Planting

**ISSUES / OPPORTUNITIES ANALYSIS  
(CENTRAL AVE. TO CAREY AVE.)**





**QUESTIONS**

1. Should more street trees be added?
2. Are medians desirable west of capitol?
3. Should sidewalks be improved/widened if possible?
4. Should crosswalks be paved w/colored concrete/asphalt?

**LEGEND-**

**POTENTIAL STRATEGIES AND OPPORTUNITIES**

Potential To Enhance Streetscape

- Street trees
- Lighting enhancements
- Enhanced paving
- Widen sidewalks if possible



Potential To Enhance Bulbouts

- Planting
- Seatwalls
- Paving
- Increase width if possible



Potential Median

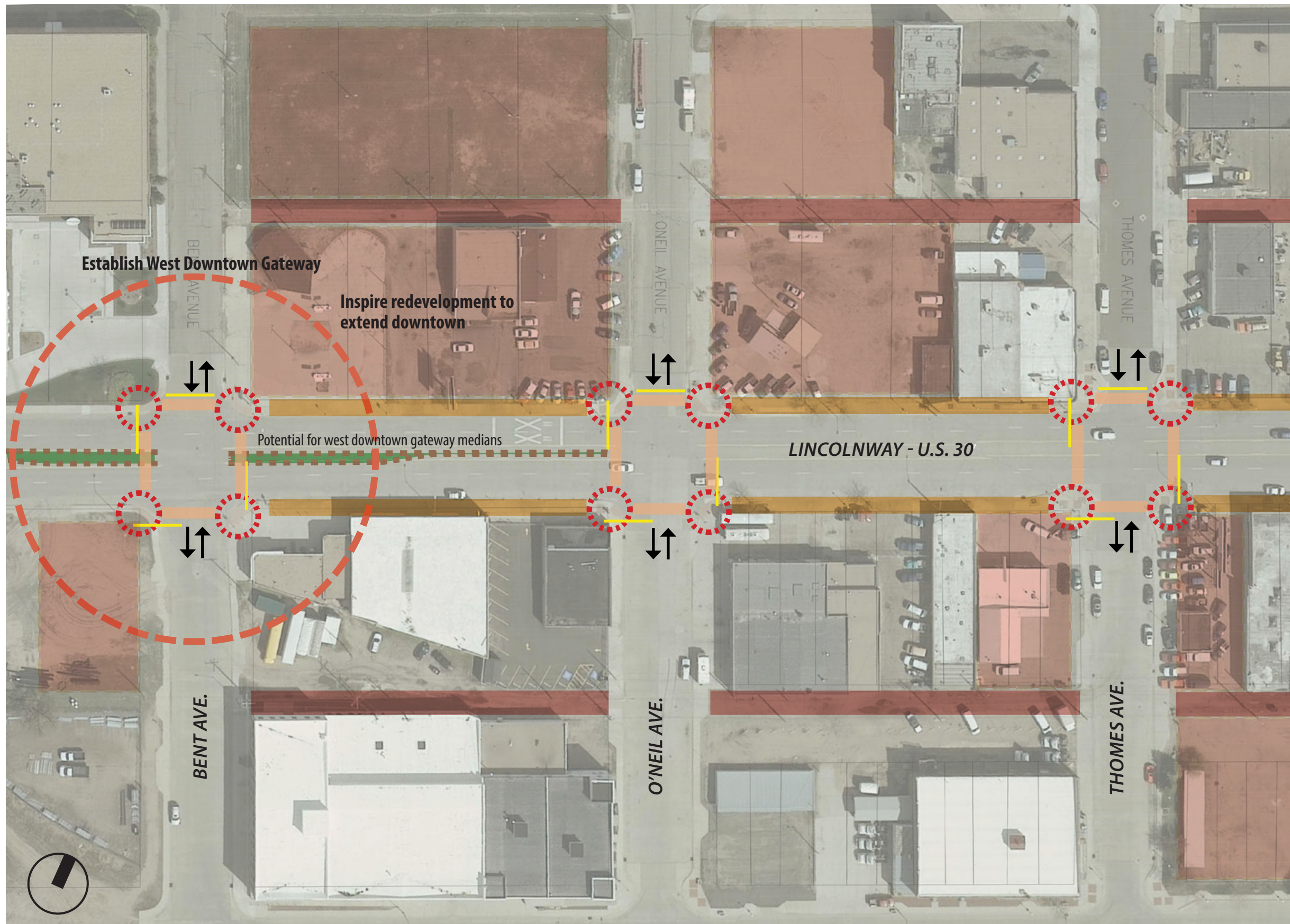
- Replication or variation of existing design
- Minimal planting
- Narrow trees where possible



Potential Enhanced Alley Connections

- Underground utilities
- Enhanced paving
- Lighting
- Planting



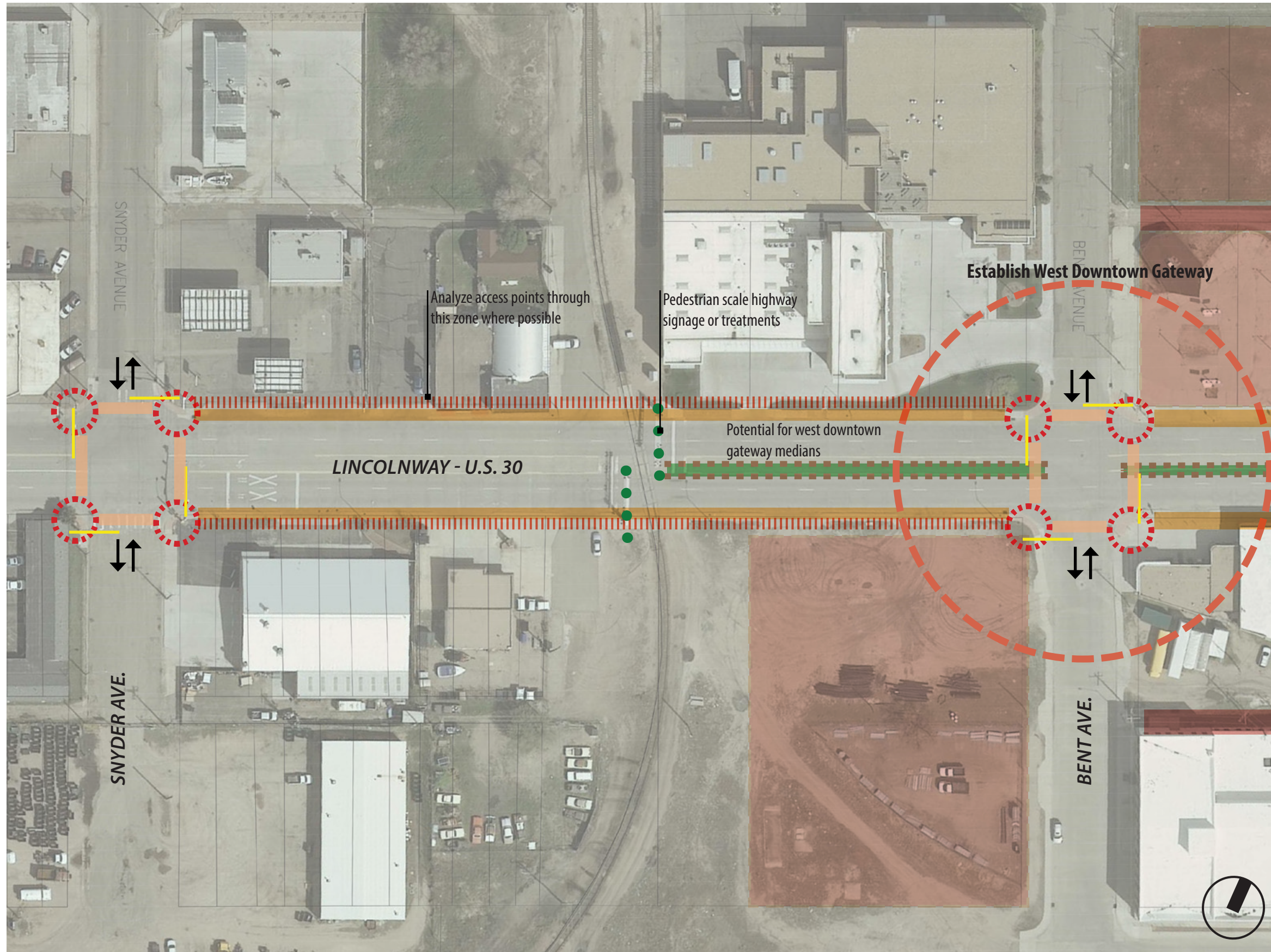


- QUESTIONS**
1. West downtown gateway at bent?
  2. Are gateway medians appropriate here?
  3. Should alleys be enhanced here?
  4. Should sidewalks be improved/widened if possible?

**LEGEND-  
POTENTIAL STRATEGIES AND OPPORTUNITIES**

- Potential To Enhance Streetscape
  - Street trees
  - Lighting enhancements
  - Enhanced paving
  - Widen sidewalks if possible
- Potential To Enhance Bulbouts
  - Planting
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- Potential Median
  - Replication or variation of existing design
  - Minimal planting
  - Narrow trees where possible
- Potential Enhanced Alley Connections
  - Underground utilities
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  - Planting





**QUESTIONS**

1. West downtown gateway at bent?
2. Are gateway medians appropriate here?
3. Should alleys be enhanced here?
4. Should sidewalks be improved/widened if possible?

**LEGEND-  
POTENTIAL STRATEGIES AND OPPORTUNITIES**

Potential To Enhance Streetscape

- Street trees
- Lighting enhancements
- Enhanced paving
- Widen sidewalks if possible



Potential To Enhance Bulbouts

- Planting
- Seatwalls
- Paving
- Increase width if possible



Potential Median

- Replication or variation of existing design
- Minimal planting
- Narrow trees where possible



Potential Enhanced Alley Connections

- Underground utilities
- Enhanced paving
- Lighting
- Planting





LINCOLNWAY CROSSING AT CAPITOL AVE.



CAPITOL AVE. CROSSING



LINCOLNWAY CROSSING AT CENTRAL AVE.



FARMERS' MARKET

The above photos taken during public events at the Depot Plaza illustrate the need for safe, enhanced pedestrian crossings at Lincolnway and Capitol Ave., Lincolnway and Central Ave. while considering potentially closing Capitol Ave. for events, to ease pedestrian flow along 15th street while expanding vendor opportunities onto Capitol Ave.



CROSSING AT DEPOT





GROUND FLOOR ACTIVATION



PARKING AS EDGE AND SEPARATOR



LIGHTING - FULL CUT-OFF LED



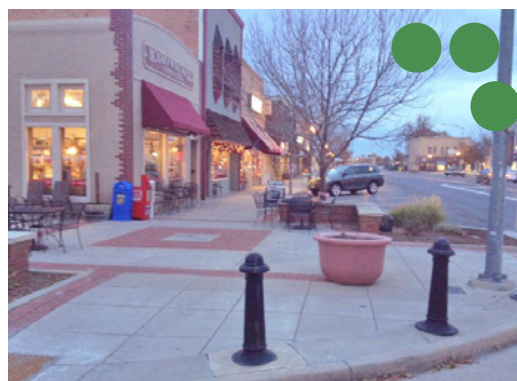
PEDESTRIAN DOMAIN/HUMAN SCALE ELEMENTS



PAVEMENT TYPES



MEDIANS FOR HUMAN SCALE IN ROADWAY



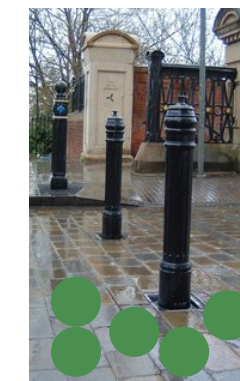
BULB-OUTS AND EDGES AT STREET CROSSINGS



BENCHES



SEAT WALLS / WALLS



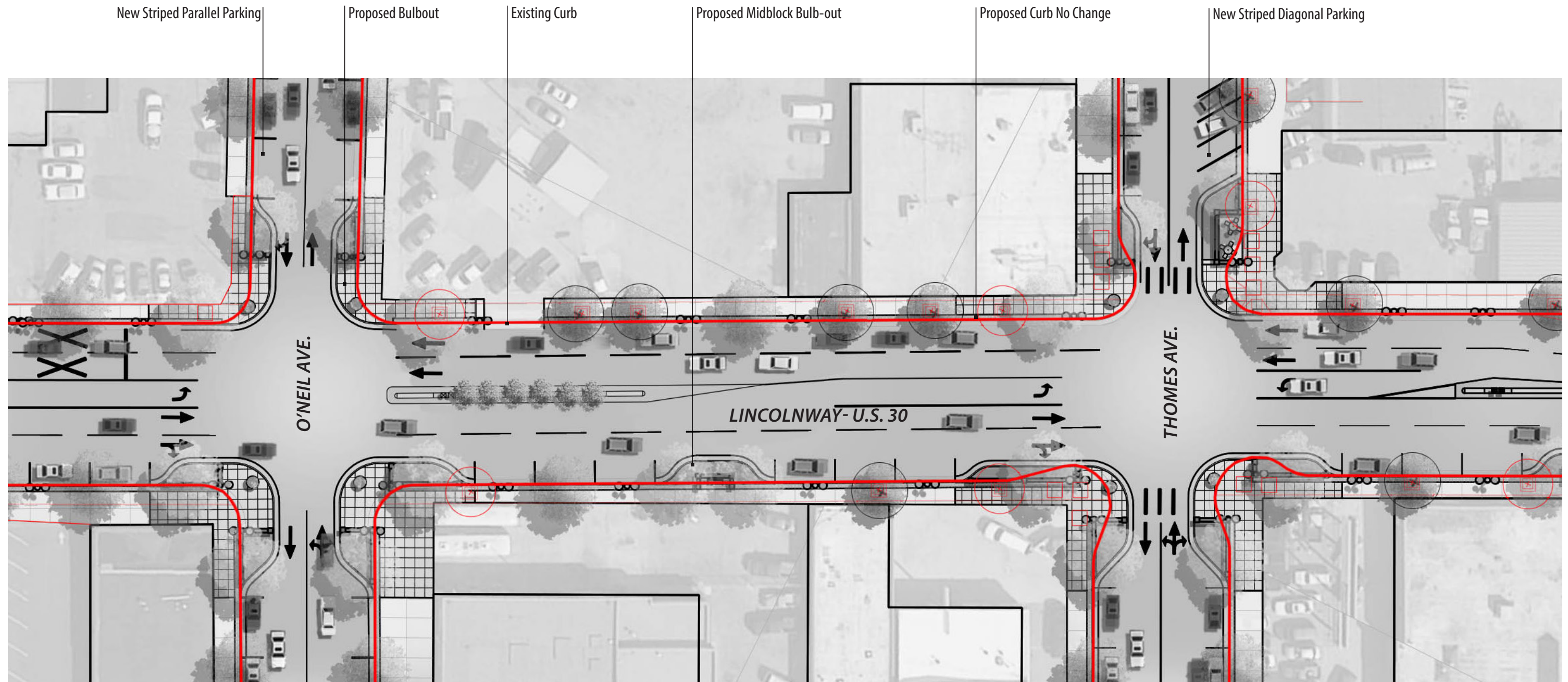
REMOVABLE BOLLARDS



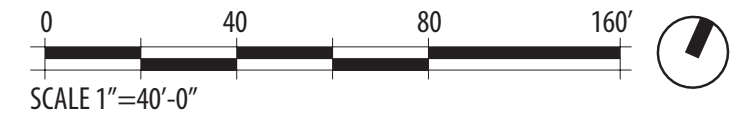
The images above summarize the results from the Visual Preferencing exercise provided during Workshop 1. Attendees were asked to place a limited number of red and green dots on images they find most appropriate or inappropriate. In general, traditional streetscape elements were preferred as well as elements consistent with current Downtown streetscapes and spaces.

PLACEMAKING CHARACTER IMAGES

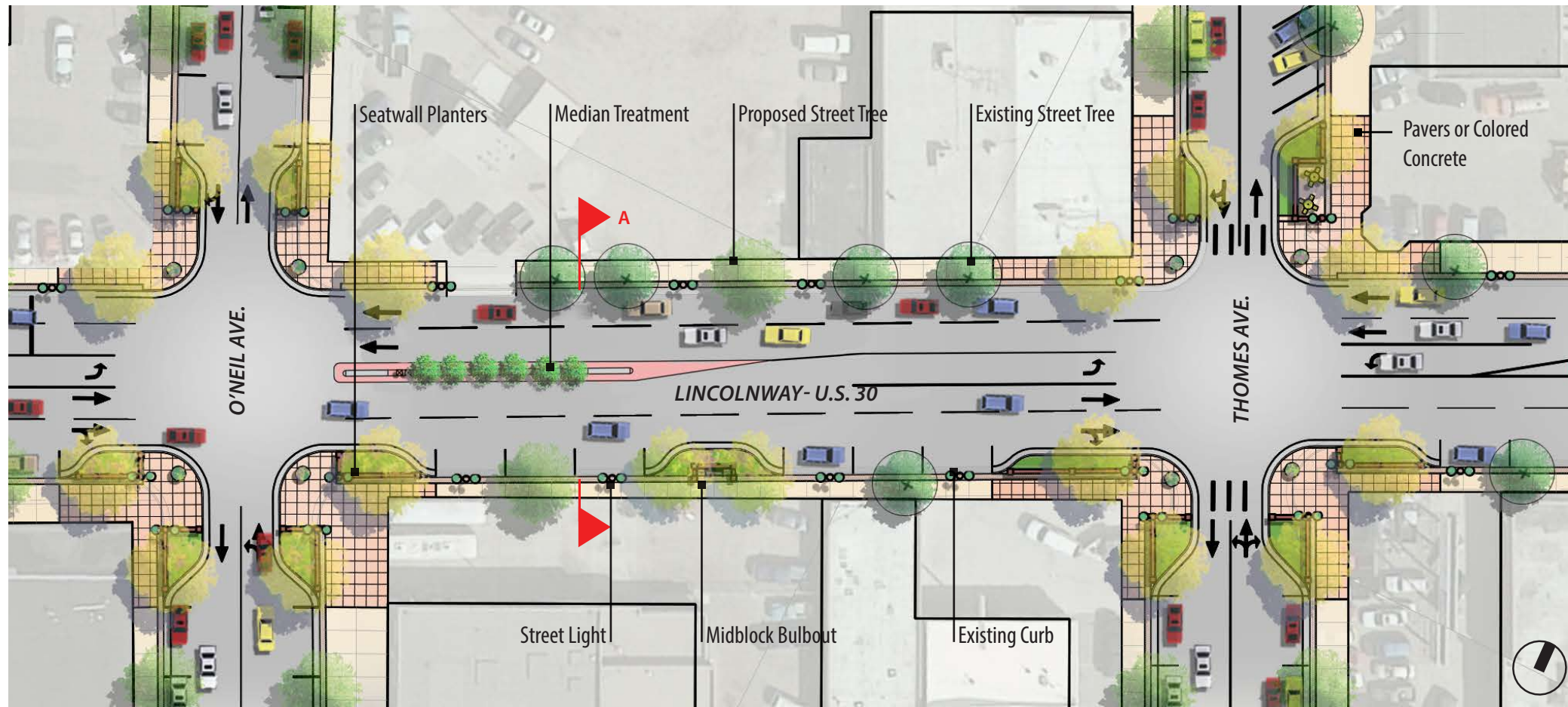




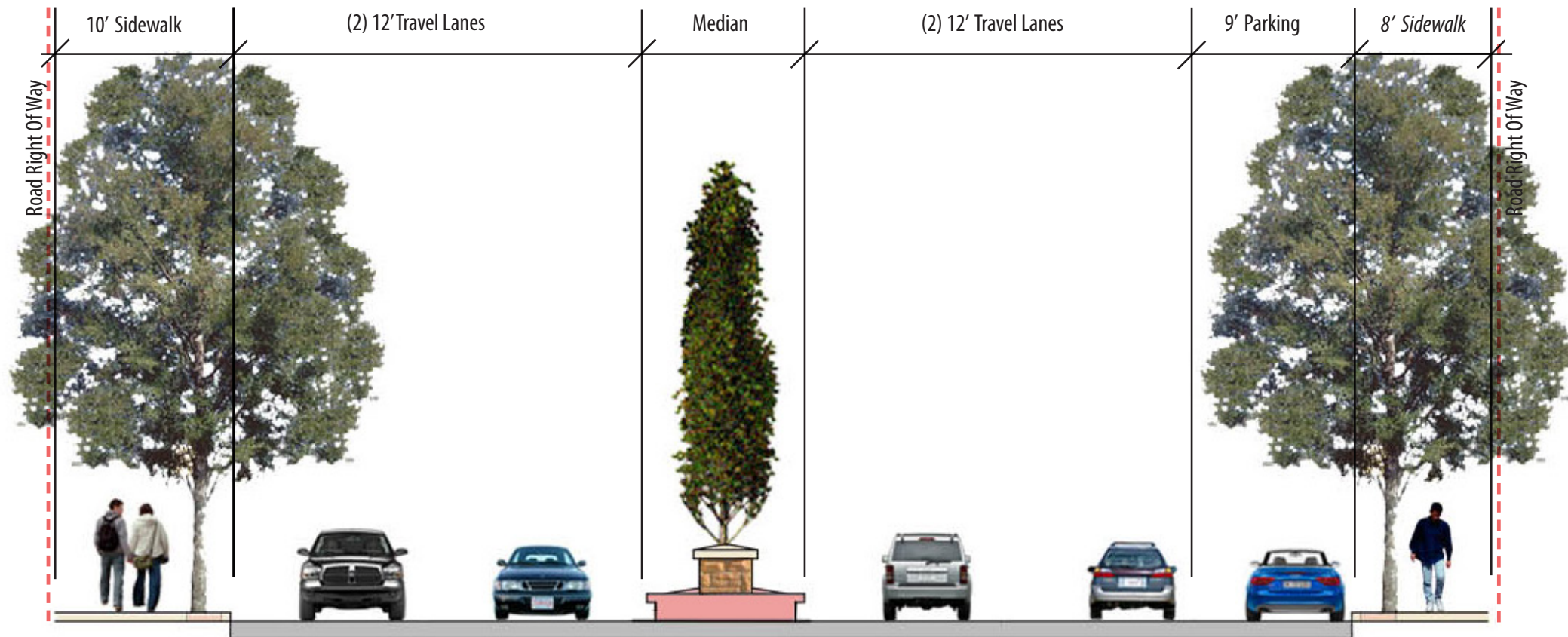
The 5 Lane Plan proposes to retain the existing 5 lanes of traffic along Lincolnway (U.S. 30). Intersections are enhanced with bulb-outs while the existing east-west curbs remain in their existing locations. Mid block bulb-outs are added along the south side of Lincolnway within the parallel parking zone. To the north of Lincolnway parking (some parallel and some diagonal) are added to the north-south feeder streets to help alleviate parking issues for the downtown area. This alternative retains existing tree locations with additional trees to be added for a more uniform effect. Irrigation to trees would be bored through existing tree root zones in a shared trench with electric lines at the back of curb.







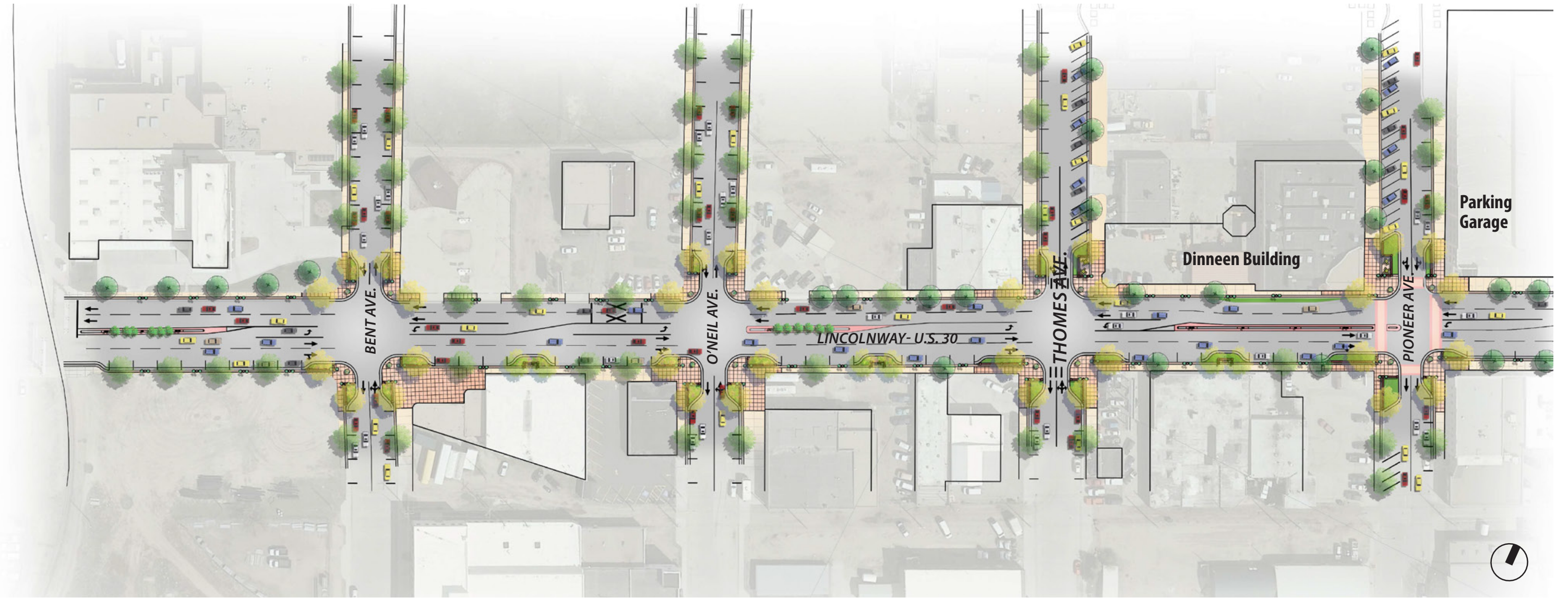
PLAN



SECTION A

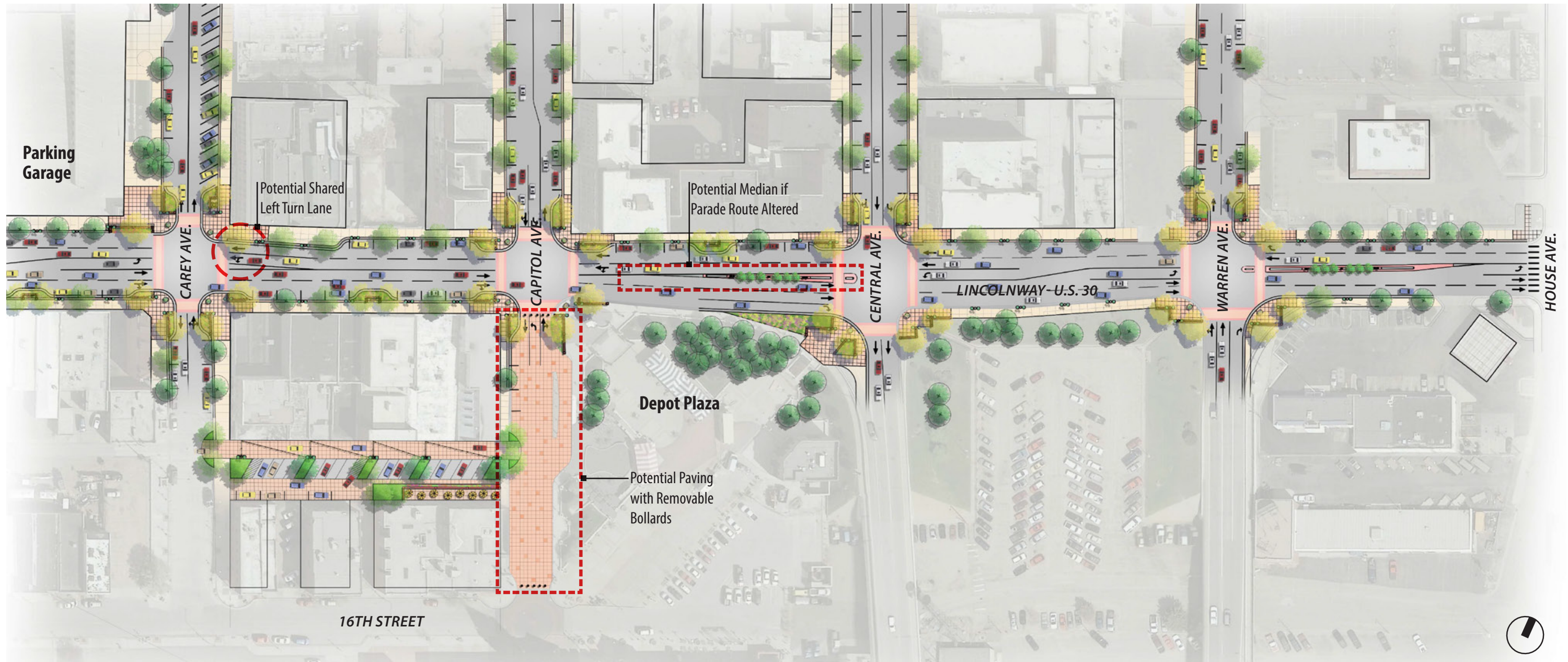
**5 LANE PLAN**  
**BASIC FRAMEWORK (O'NEIL TO THOMES)**





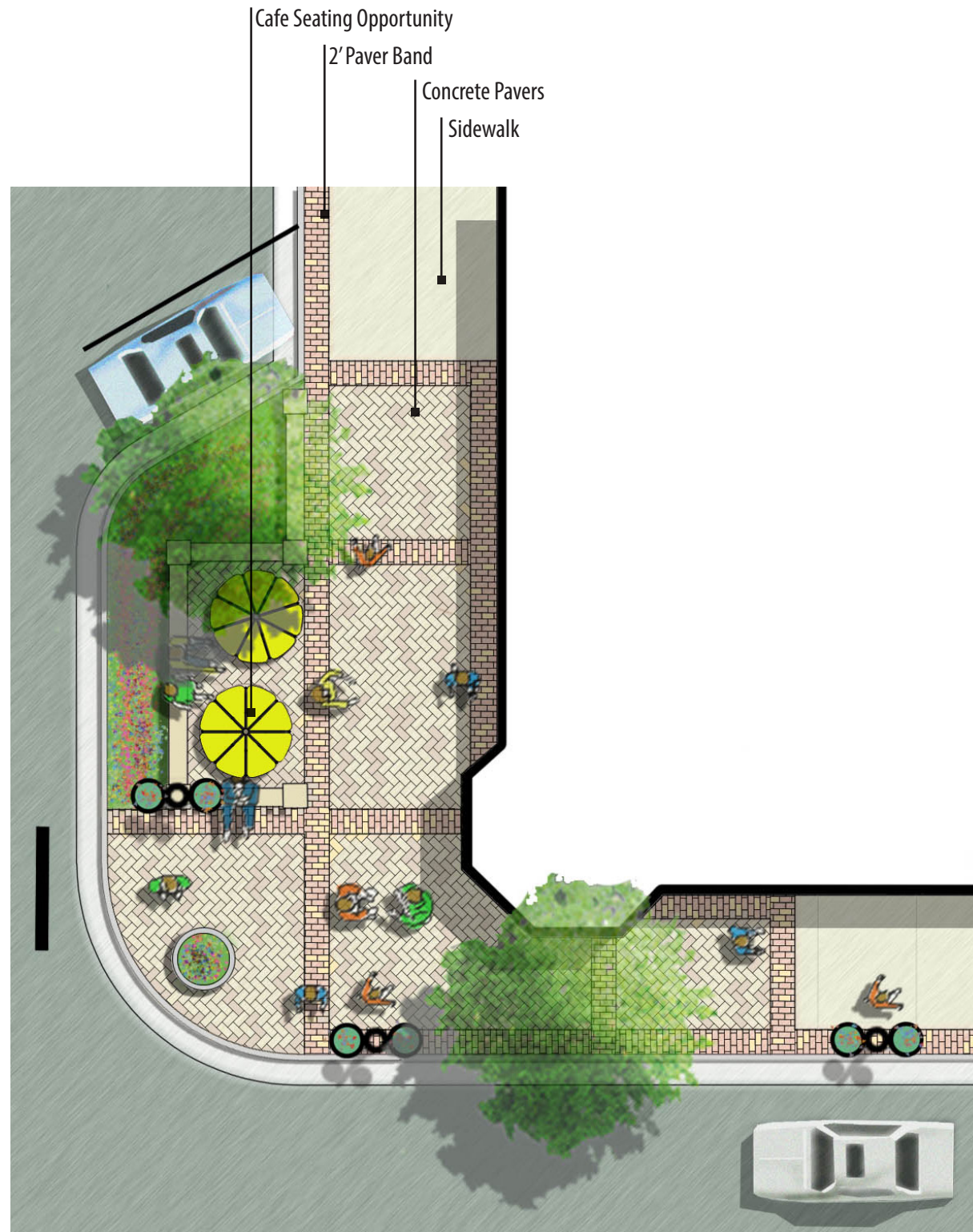
**5 LANE PLAN**  
(PIONEER AVE. TO BENT AVE.)



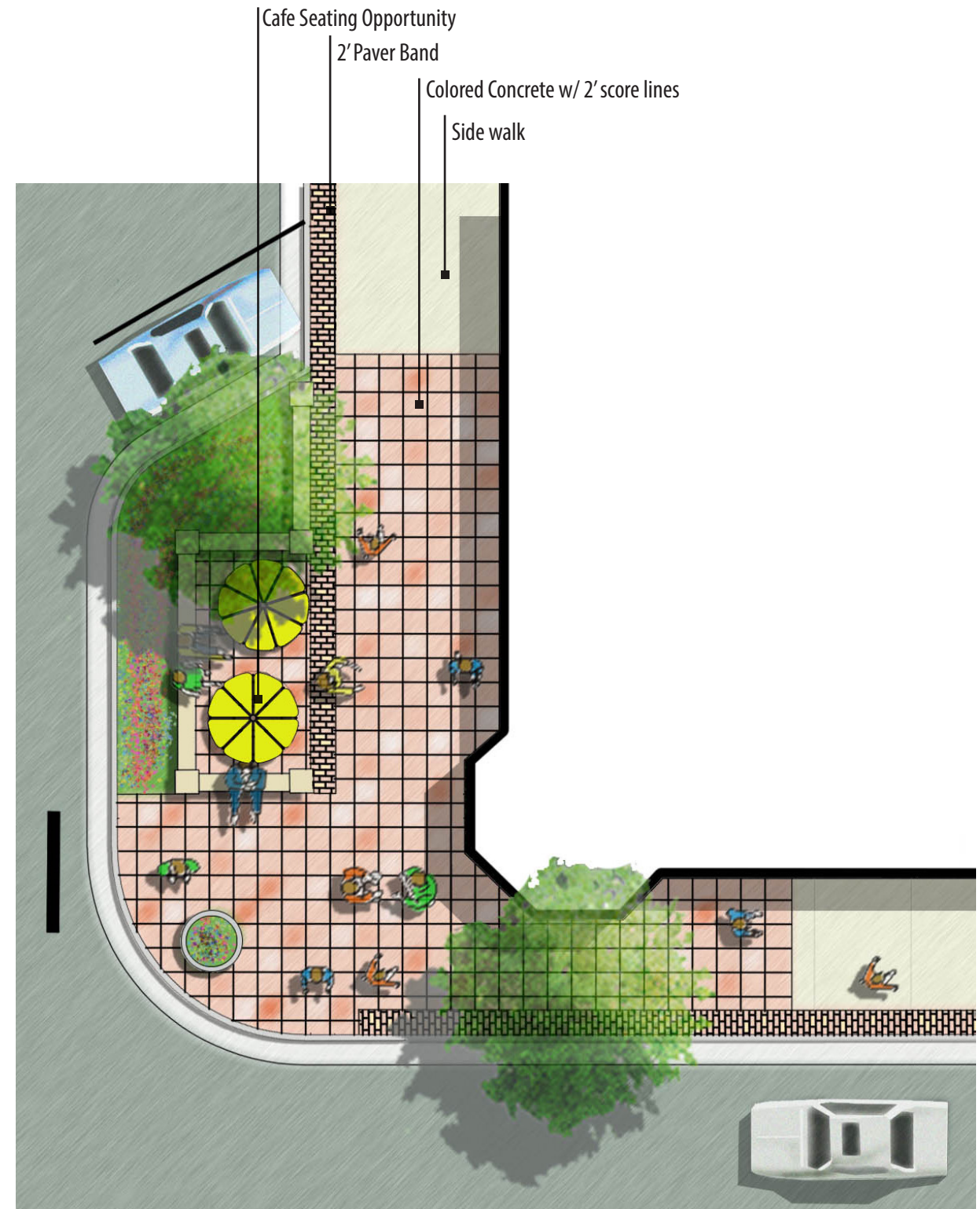


**5 LANE PLAN**  
(HOUSE AVE. TO CAREY AVE.)





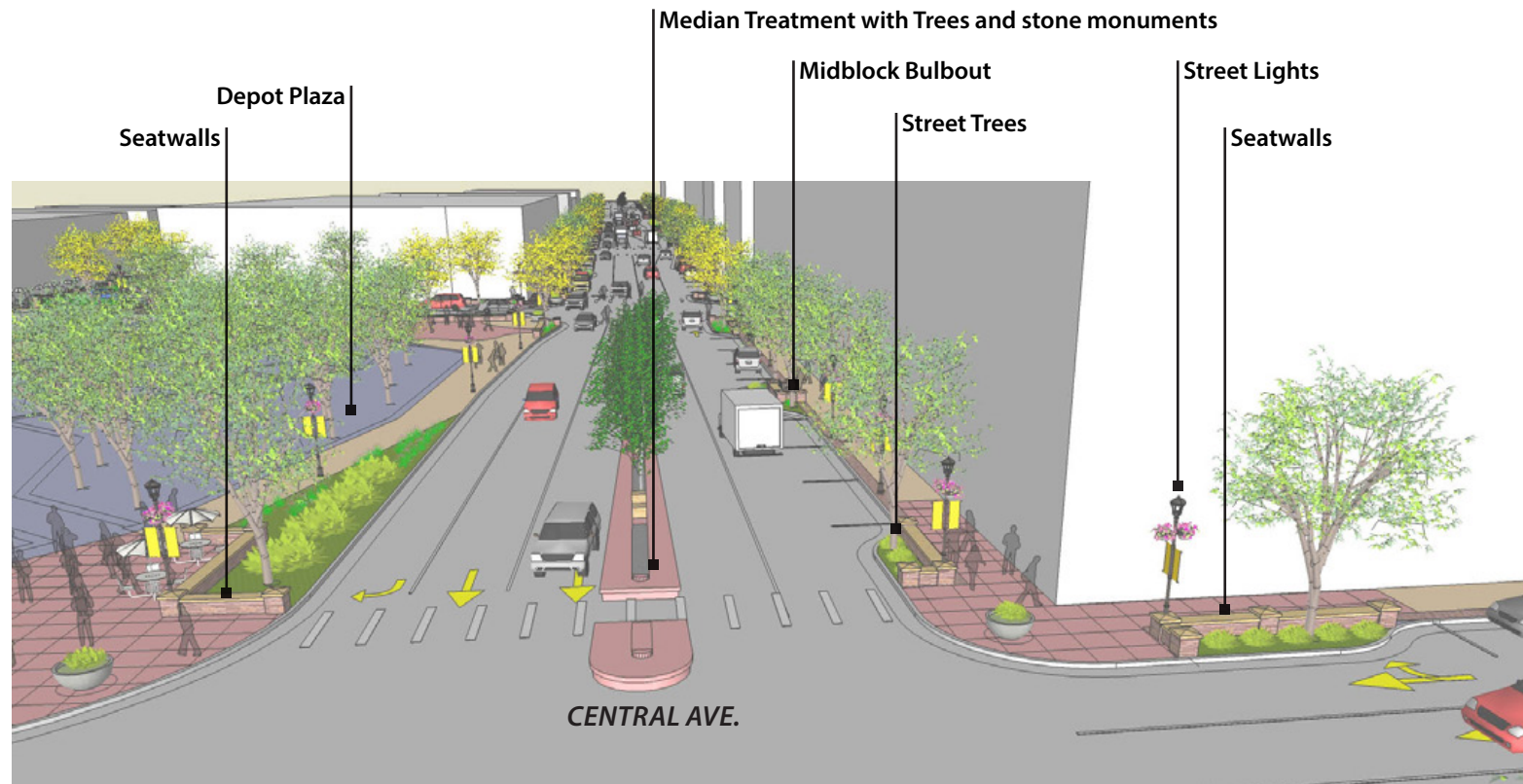
PAVEMENT OPTION 1



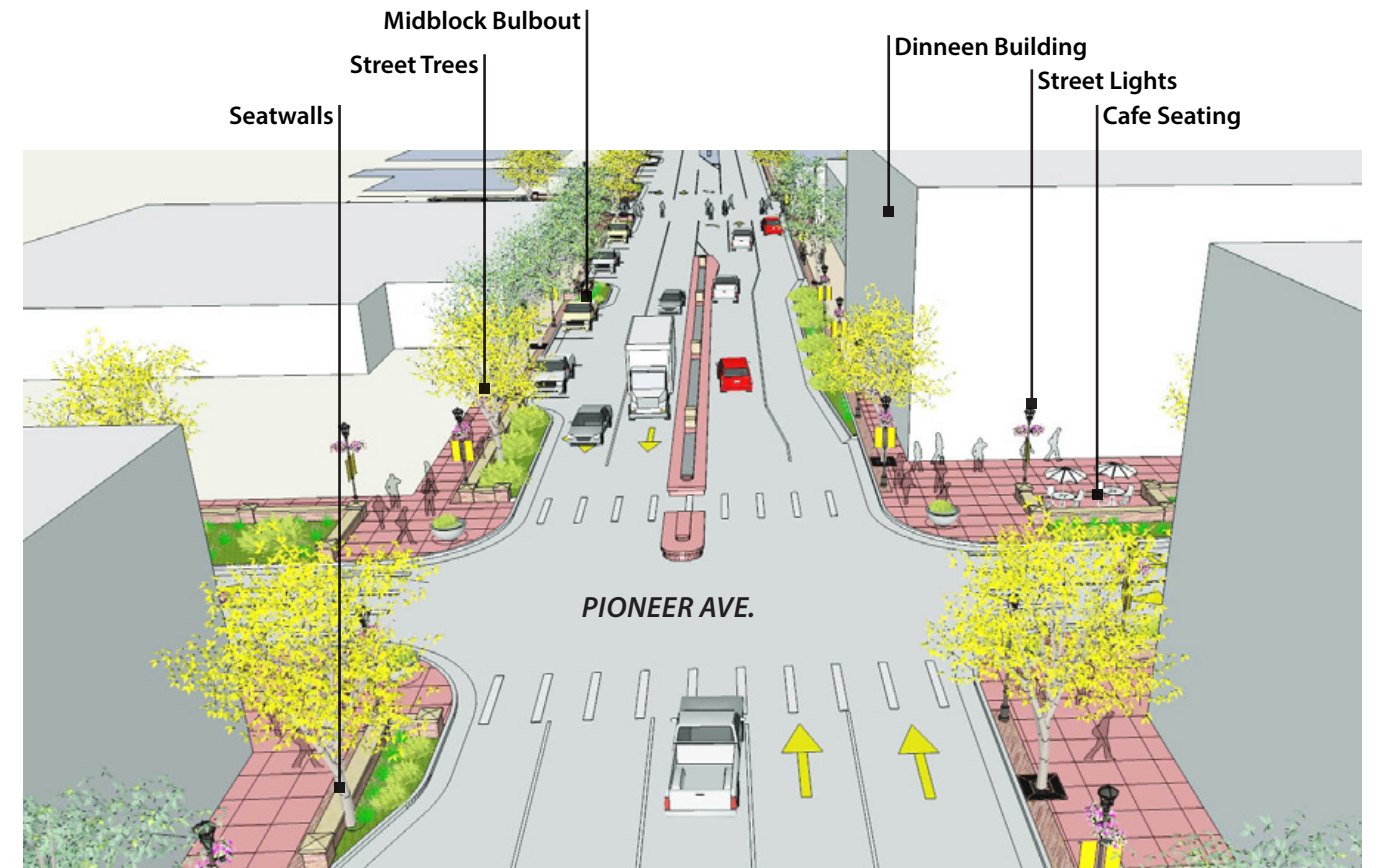
PAVEMENT OPTION 2







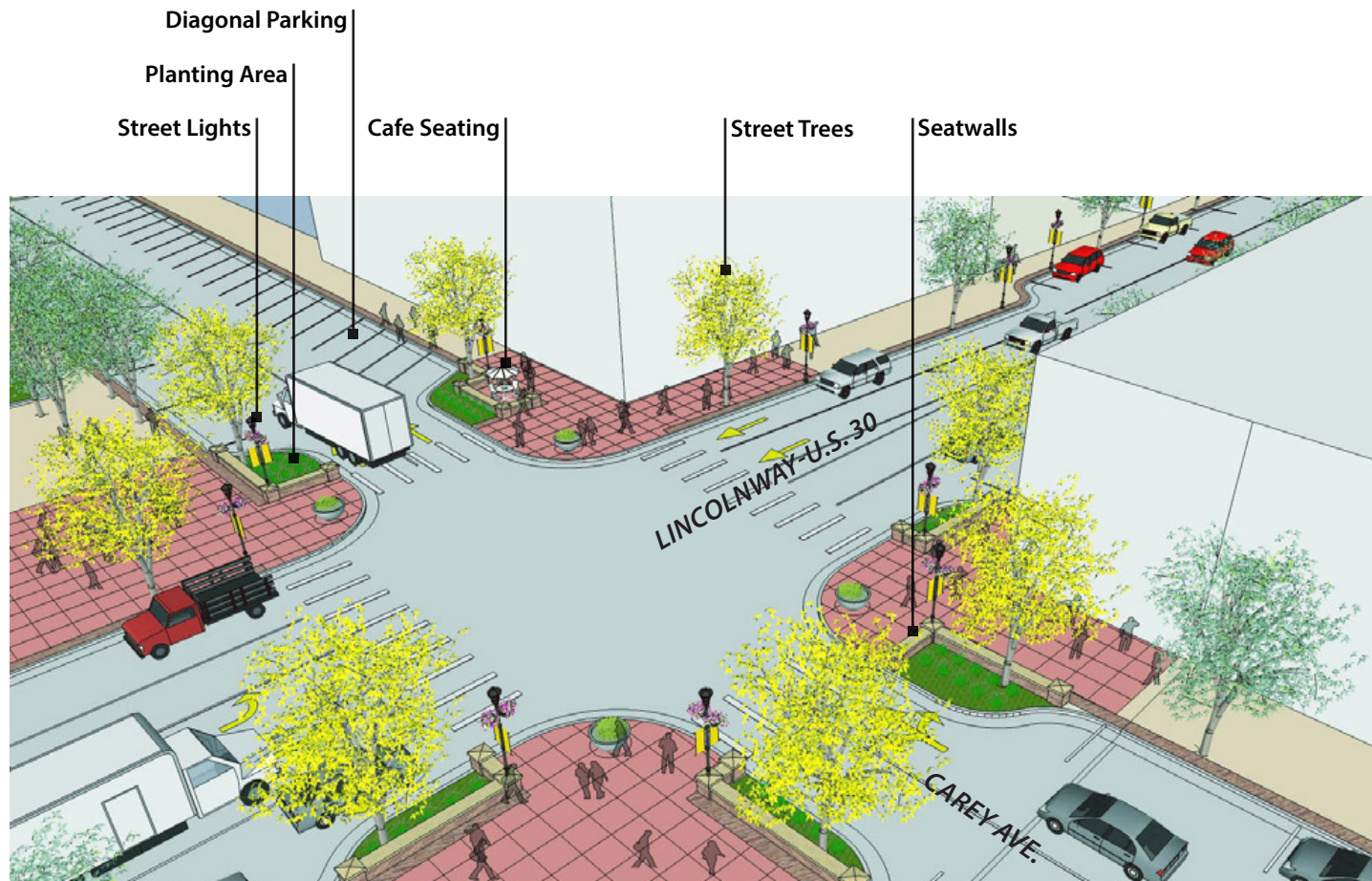
CENTRAL AVE. LOOKING WEST ALONG LINCOLNWAY U.S. 30



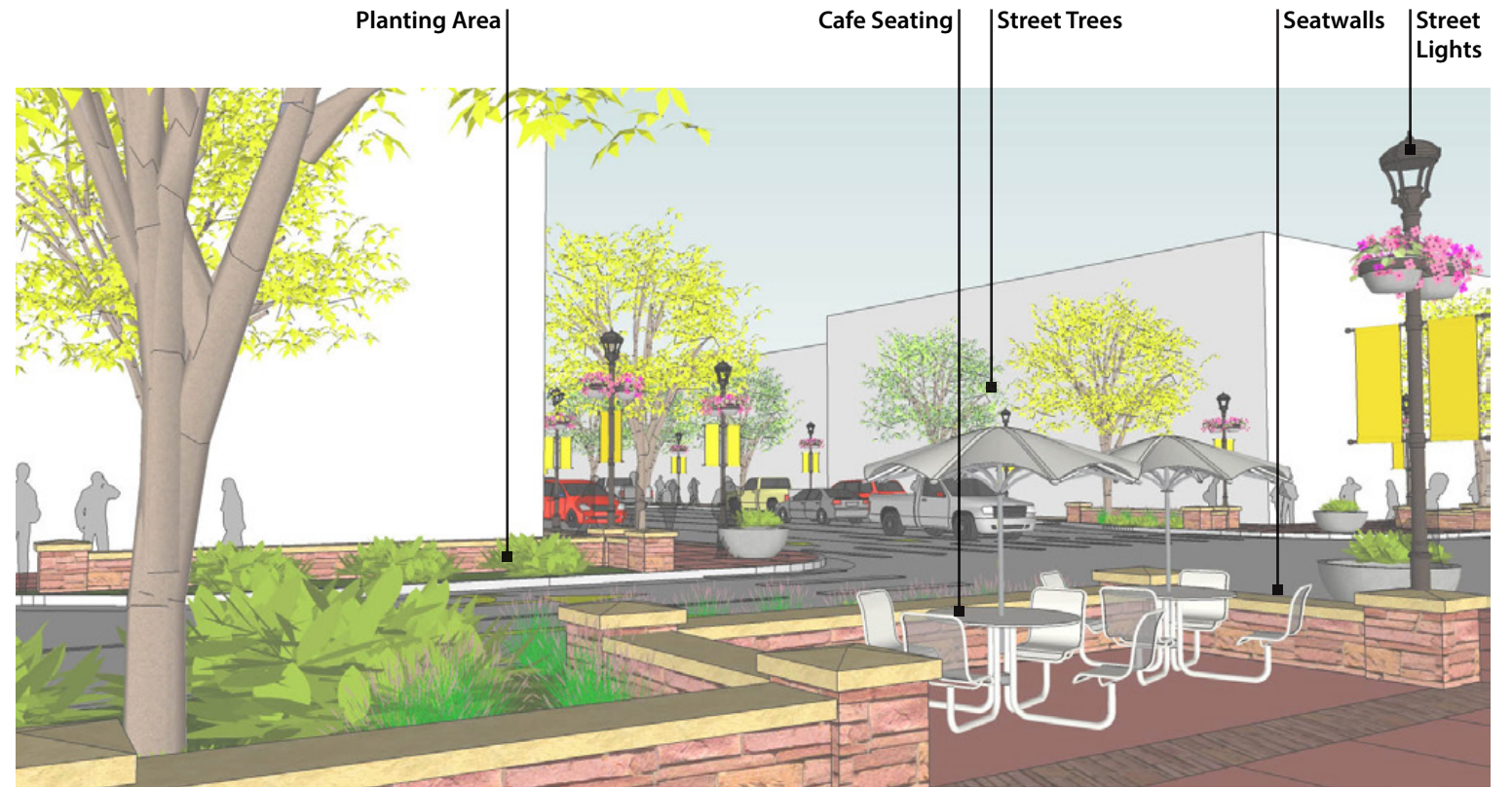
PIONEER AVE. LOOKING WEST ALONG LINCOLNWAY U.S. 30

The above renderings depict the addition of medians at pioneer and central, acting as a pedestrian refuge for street crossings. Stone seatwalls, similar to those in the Depot Plaza, with planting beds facing roadways are added at bulbouts, for seating and to create the perception of safety and separation from roadways. Where possible, permanent umbrellas, tables and chairs are added for cafe type seating, creating additional corner activation. Pedestrian scale, LED, full cut-off streetlights with fixed hanging baskets and adjustable banners are added for safety, and streetscape uniformity, while allowing banners to be changed according to events or seasons as needed.





CAREY AVE. LOOKING NORTH AT THE LINCOLNWAY U.S. 30 INTERSECTION



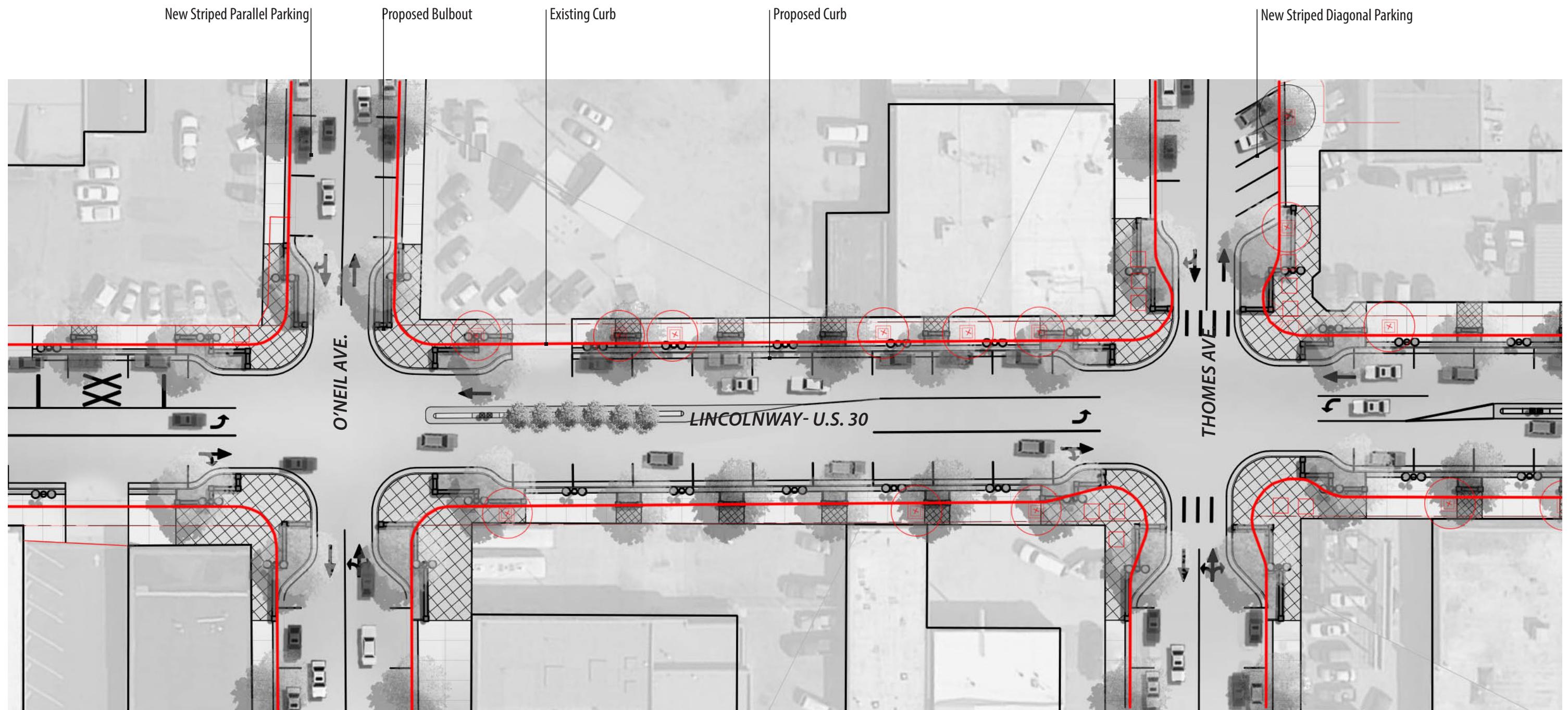
STREET VIEW LOOKING AT A CAFE SEATING AREA



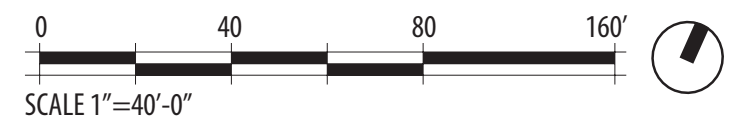


**5 LANE PLAN**  
VIEW LOOKING EAST AT CAREY AVE.

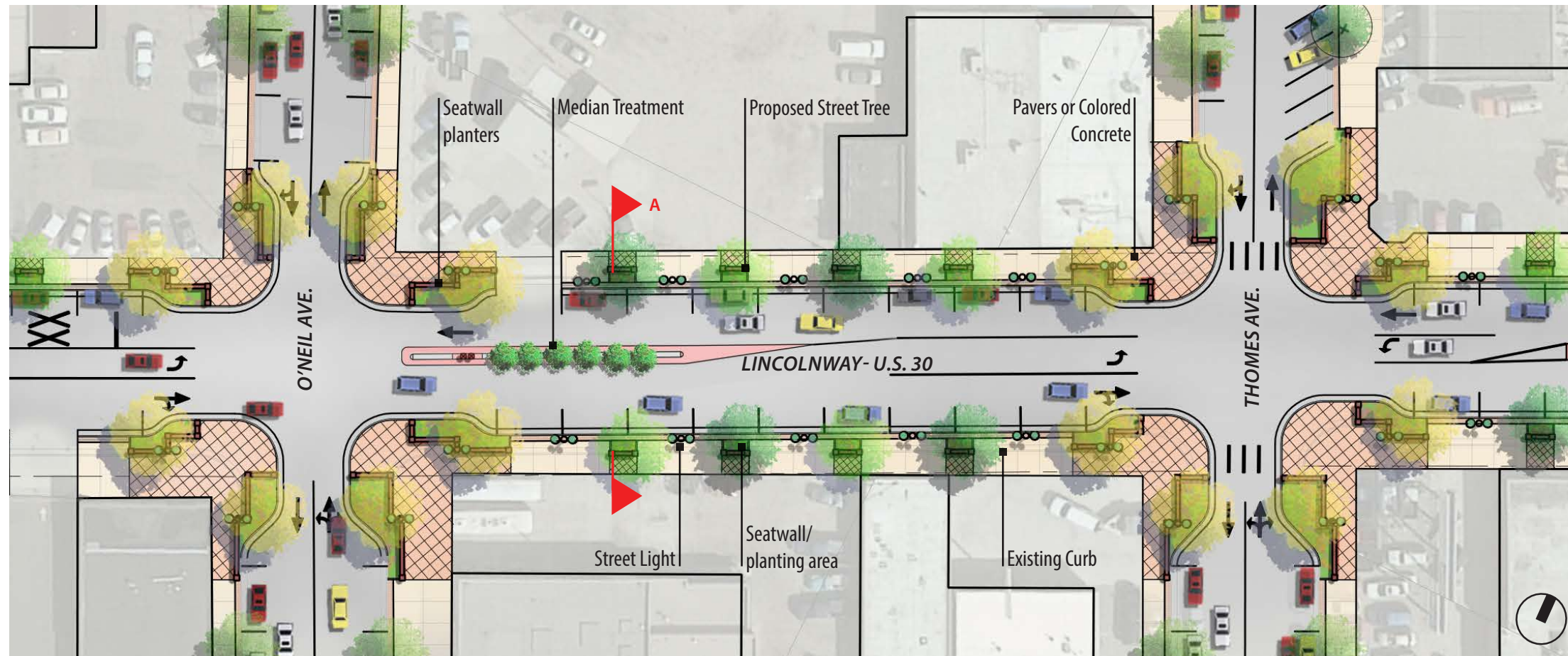




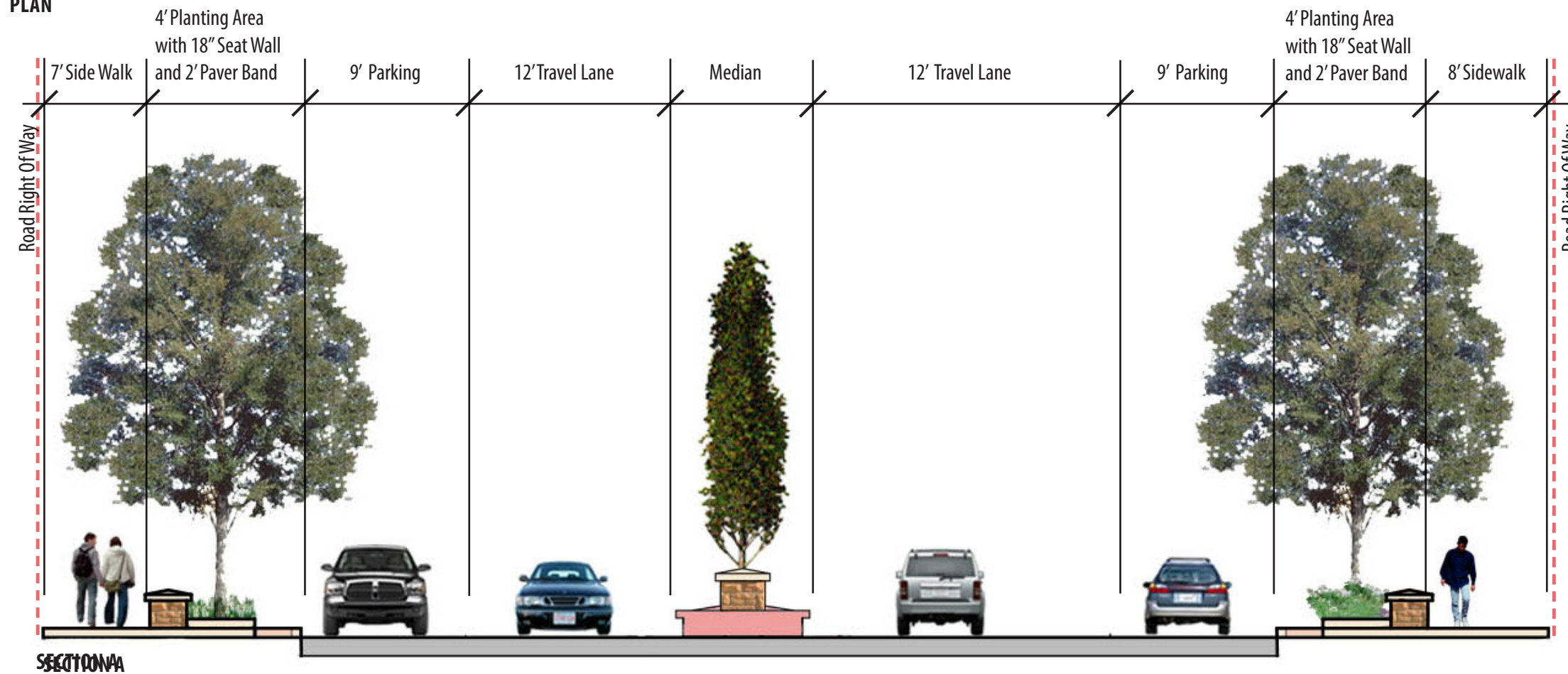
The 3 Lane Plan proposes to remove two of the existing lanes traffic along Lincolnway (U.S. 30). Intersections are enhanced with bulb-outs to provide for pedestrian space, reduce pedestrian crossing time and create additional seating. Sidewalks increase in width by approximately four feet on either side of Lincolnway, creating additional opportunities for seating and planting. A consistent tree canopy adds character, provides structure and shade, and softens the street edges. Parallel parking is added to the north and south sides of Lincolnway to serve downtown businesses and increase the potential for additional retail. To the north of Lincolnway parking (some parallel and some diagonal) is shown along the north-south feeder streets.







PLAN



SECTION A

**3 LANE PLAN**  
**BASIC FRAMEWORK (O'NEIL TO THOMES)**

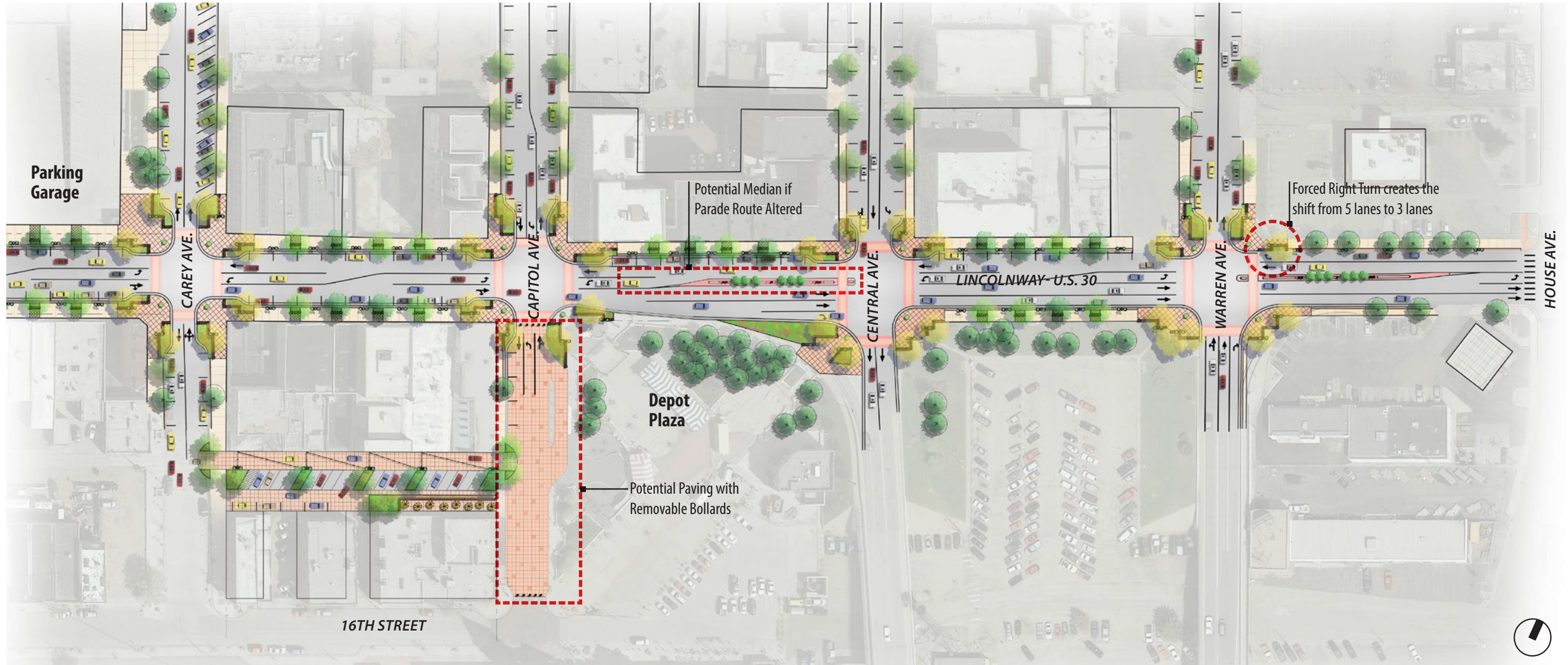




Forced Right Turn  
creates the shift from 5  
lanes to 3 lanes

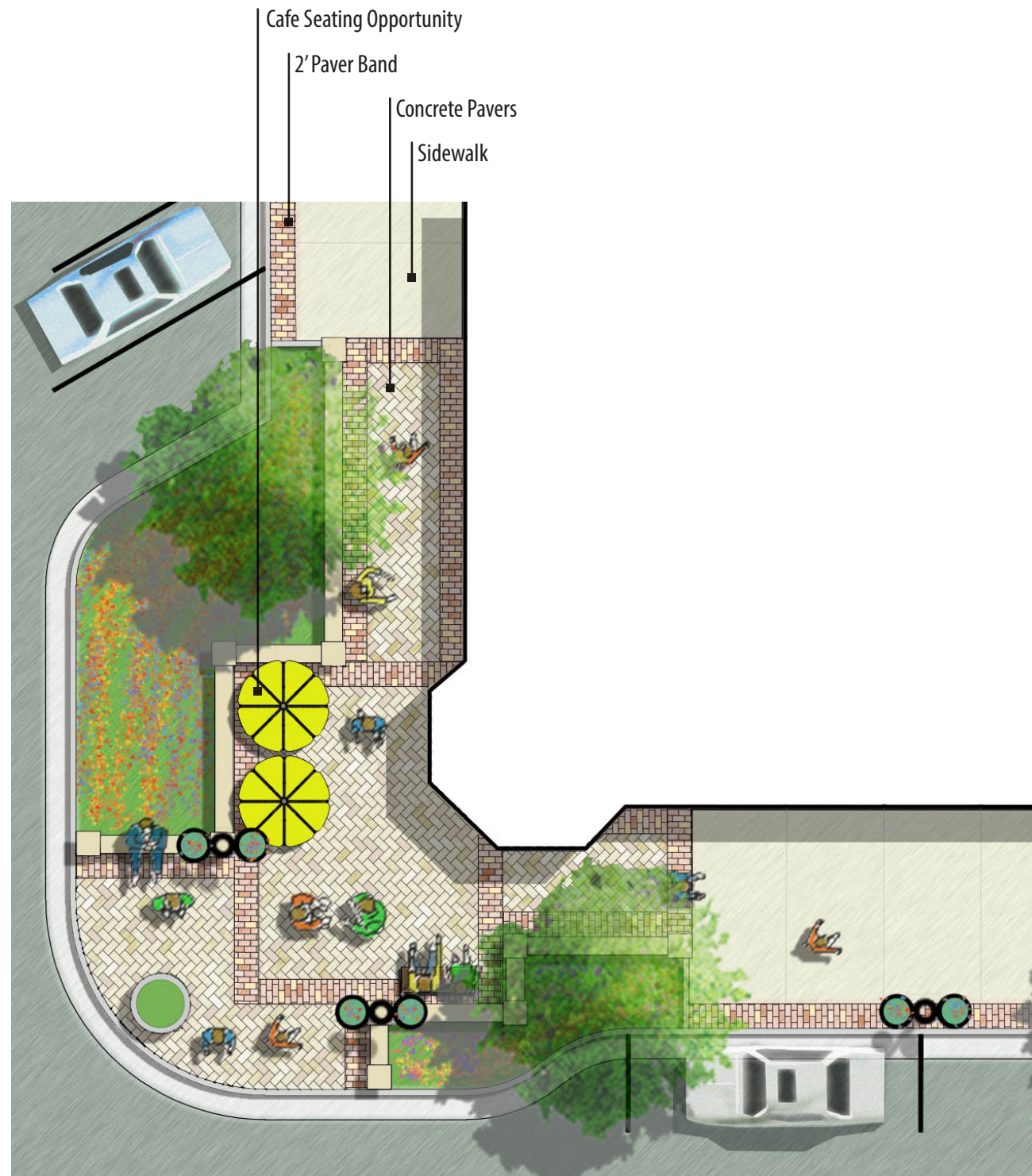
**3 LANE PLAN**  
(PIONEER AVE. TO BENT AVE.)



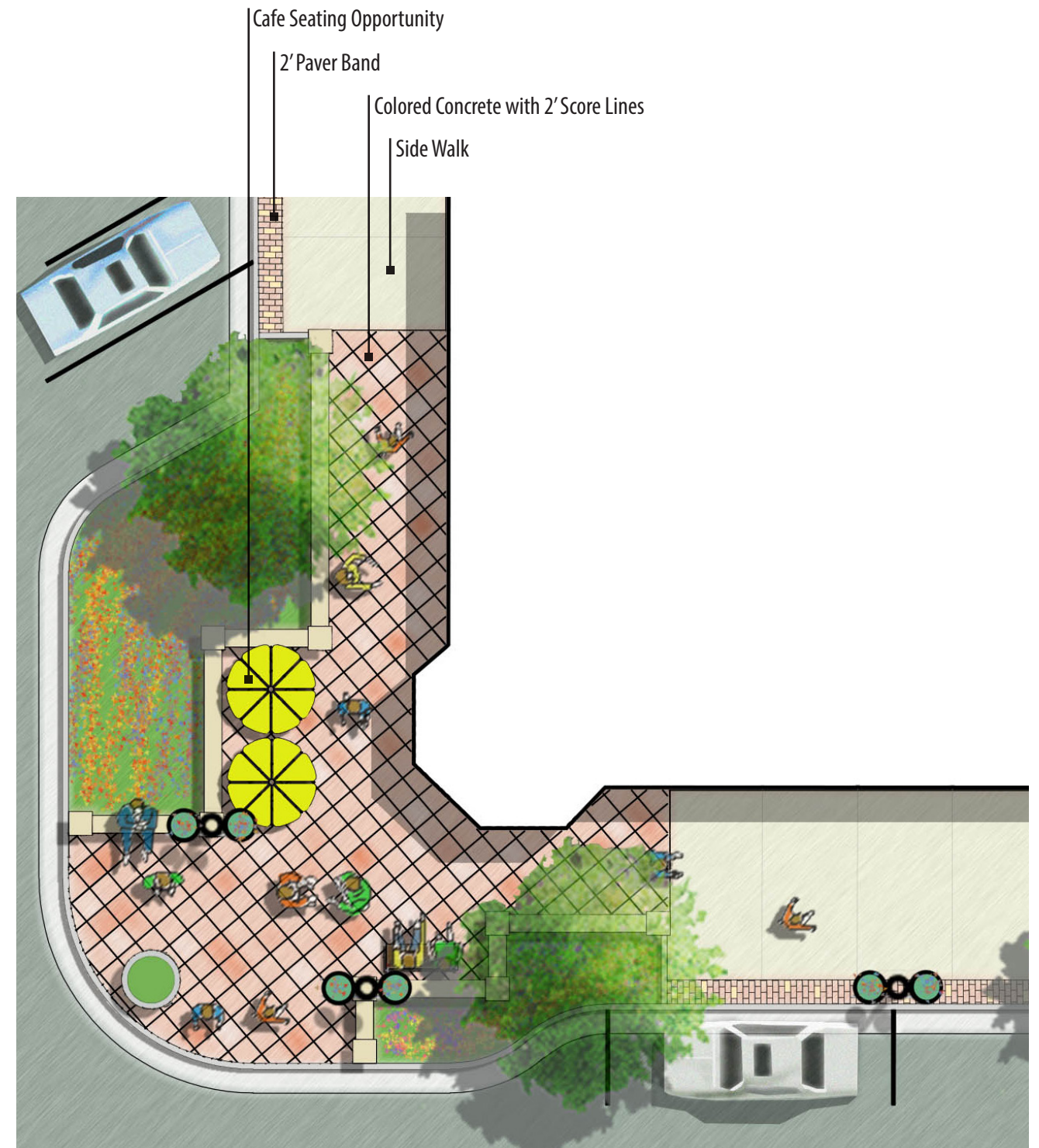


**3 LANE PLAN**  
(HOUSE AVE. TO CAREY AVE.)





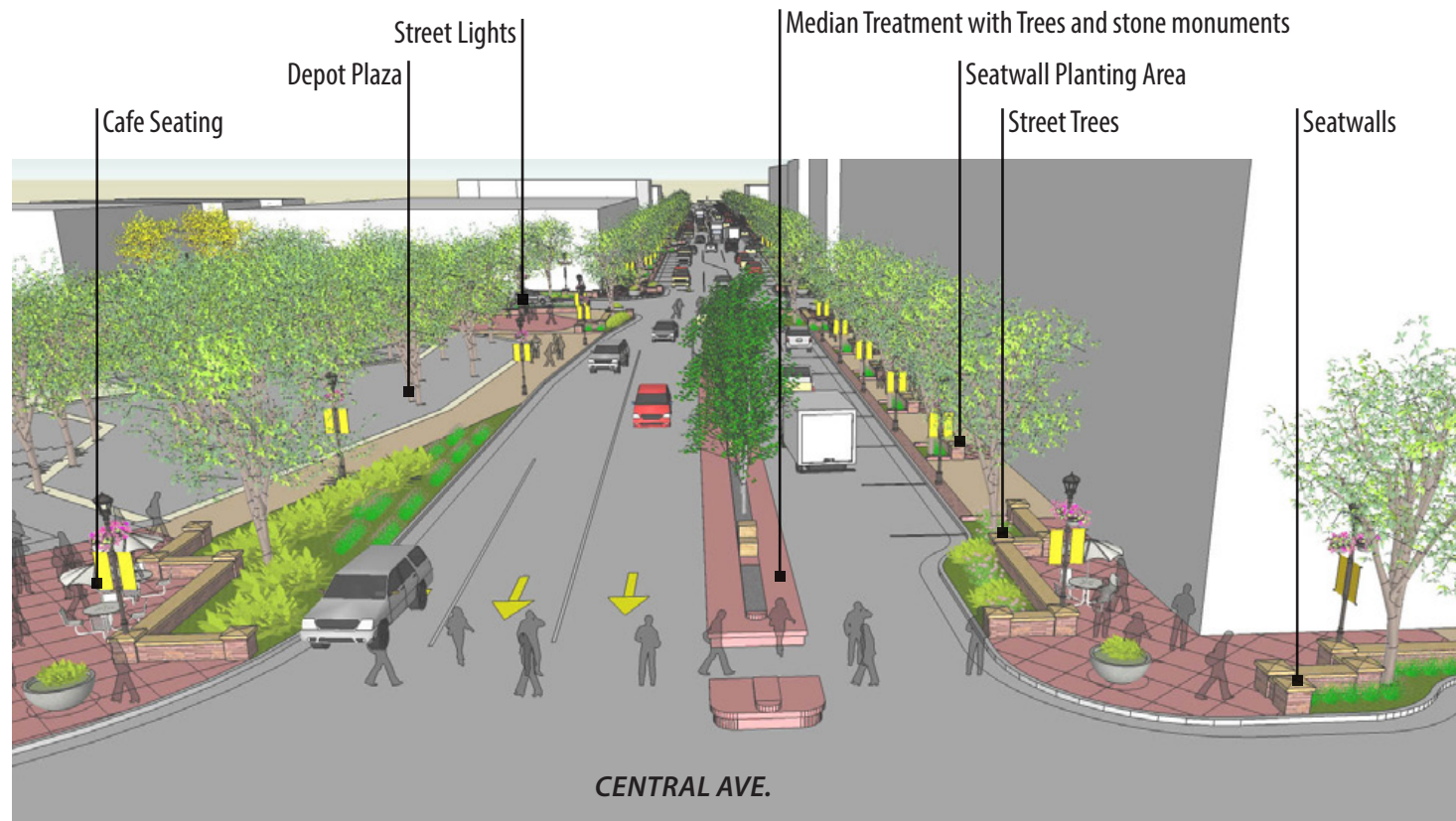
PAVEMENT OPTION 1



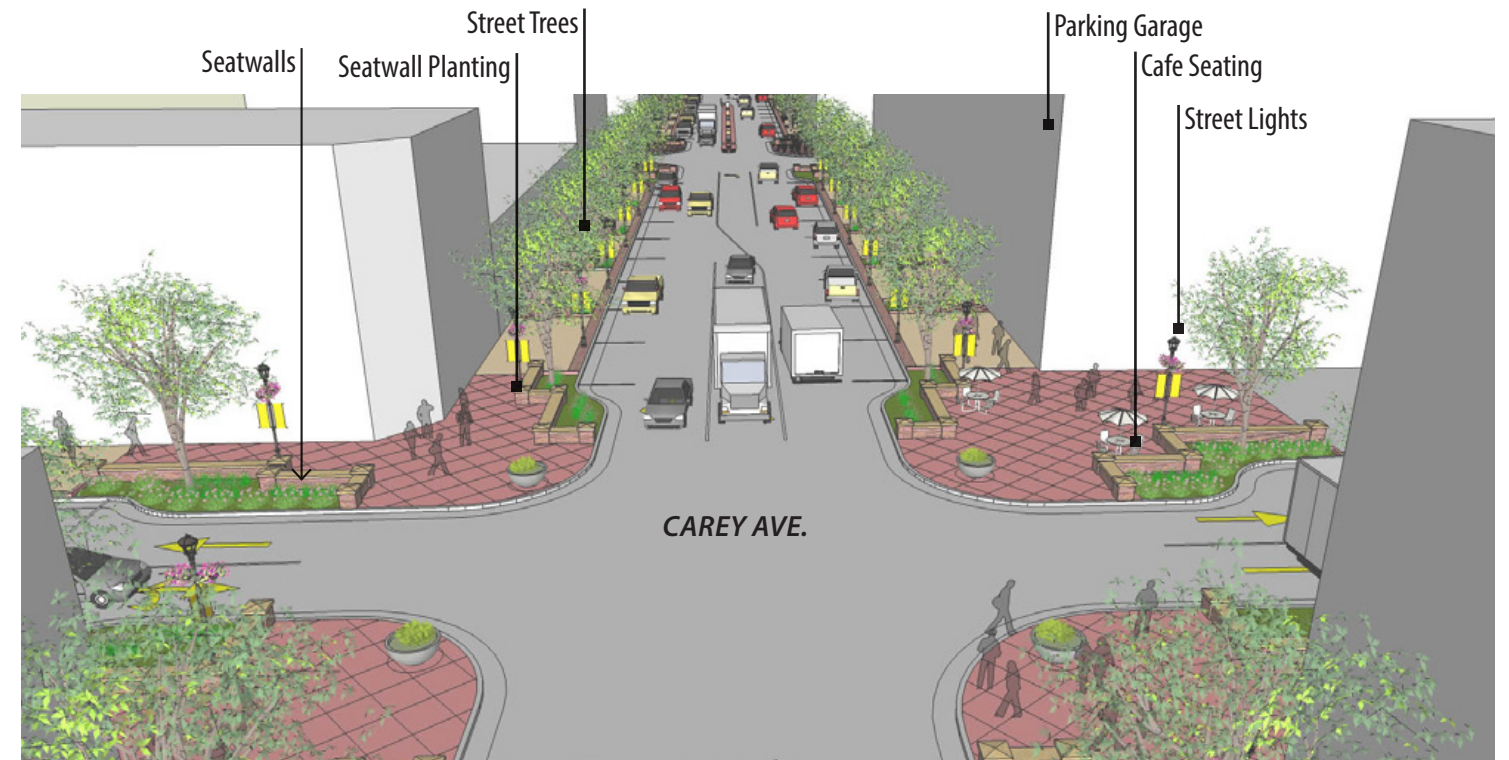
PAVEMENT OPTION 2







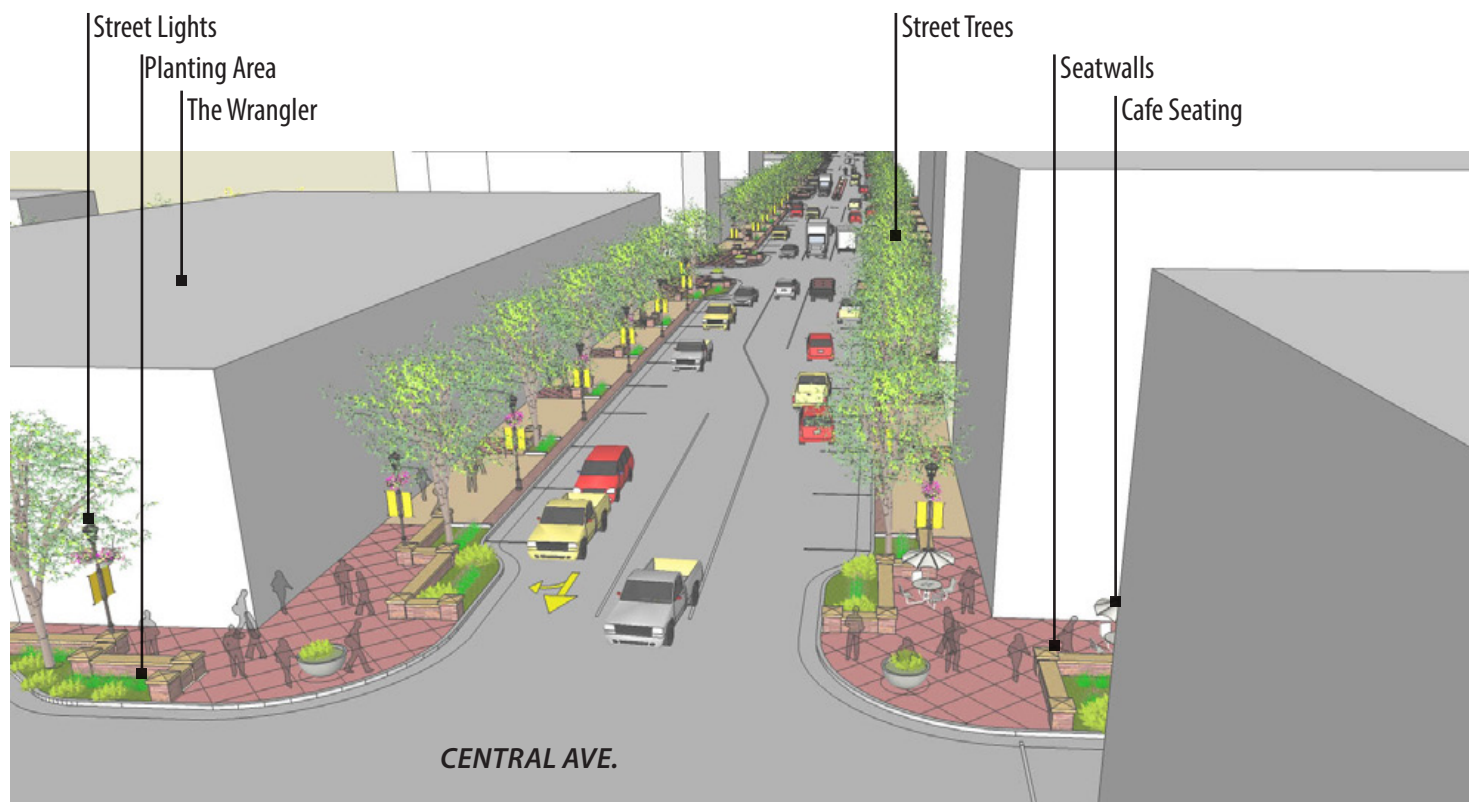
CENTRAL AVE. LOOKING WEST ALONG LINCOLNWAY U.S. 30



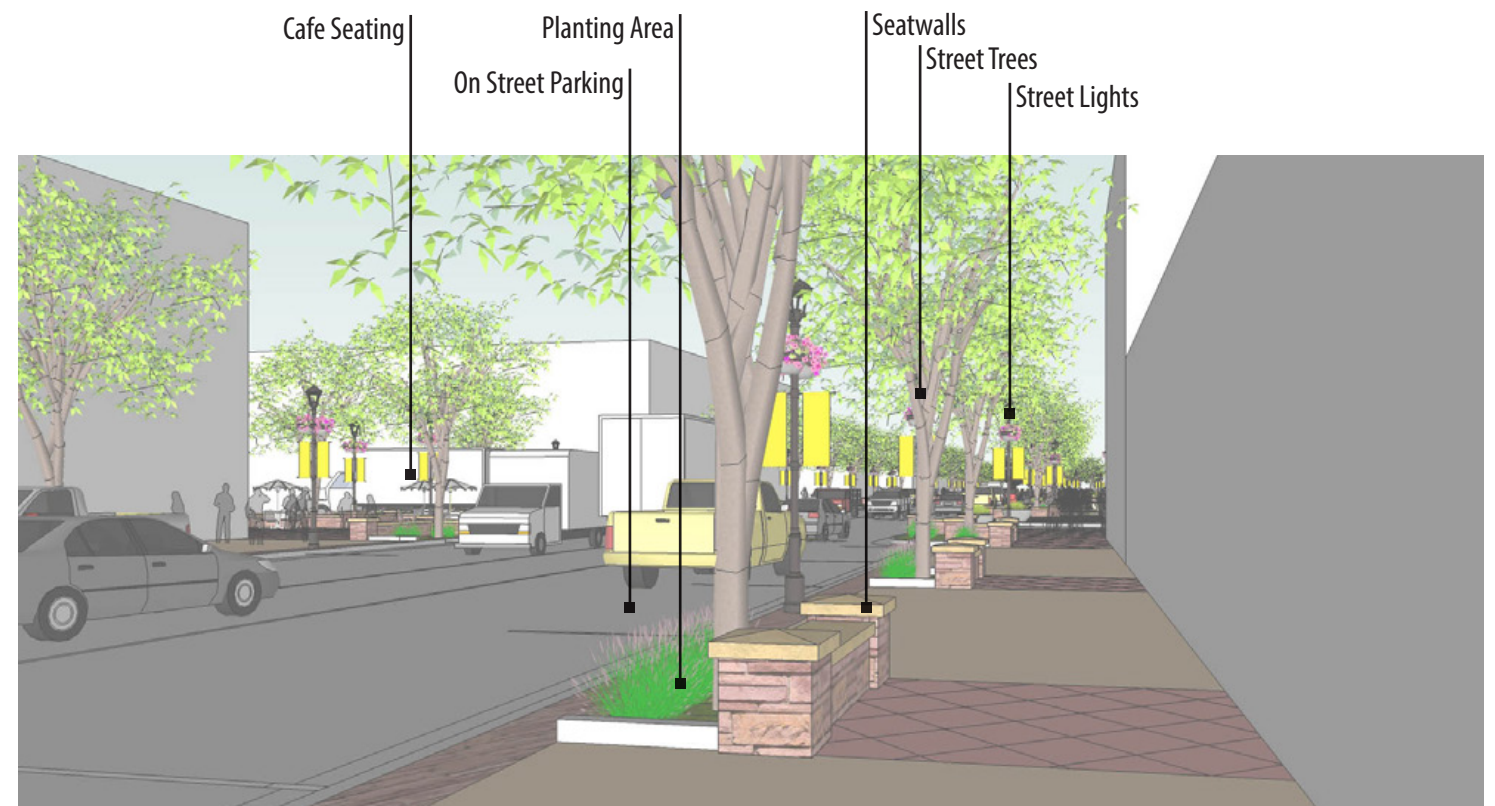
PIONEER AVE. LOOKING WEST ALONG LINCOLNWAY U.S. 30

The above renderings depict the addition of medians, acting as a pedestrian refuge for street crossings. Bulbouts are significantly enlarged in comparison to the 5-Lane plan, with more opportunity for social seating in nooks and additional cafe seating opportunities. Corner activation potential is significantly greater in this alternative with the creation of true pedestrian scale intersections that provides a safe environment and reduces pedestrian crossing time at intersections. In this alternative, pedestrian scale, LED, full cut-off streetlights are again shown with fixed hanging baskets and adjustable banners are added for safety, and streetscape uniformity, while allowing banners to be changed according to events or seasons as needed.





CAPITOL AVE. LOOKING WEST ALONG LINCOLNWAY U.S. 30



STREET VIEW LOOKING EAST ALONG LINCOLNWAY U.S. 30





**3 LANE PLAN**  
VIEW LOOKING SOUTH AT CENTRAL AVE.





Forced Right Turn  
creates the shift from 5  
lanes to 3 lanes

This hybrid plan depicts a 3-lane roadway configuration from Bent Ave. to Carey Ave. and a 5-Lane configuration from Carey Ave. extending to the east. This concept allows for a 5-lane condition in the signalized zone to enhance traffic flow. Forced right turns that facilitate the 3-lane condition are shown at Bent Ave. and Carey Ave.

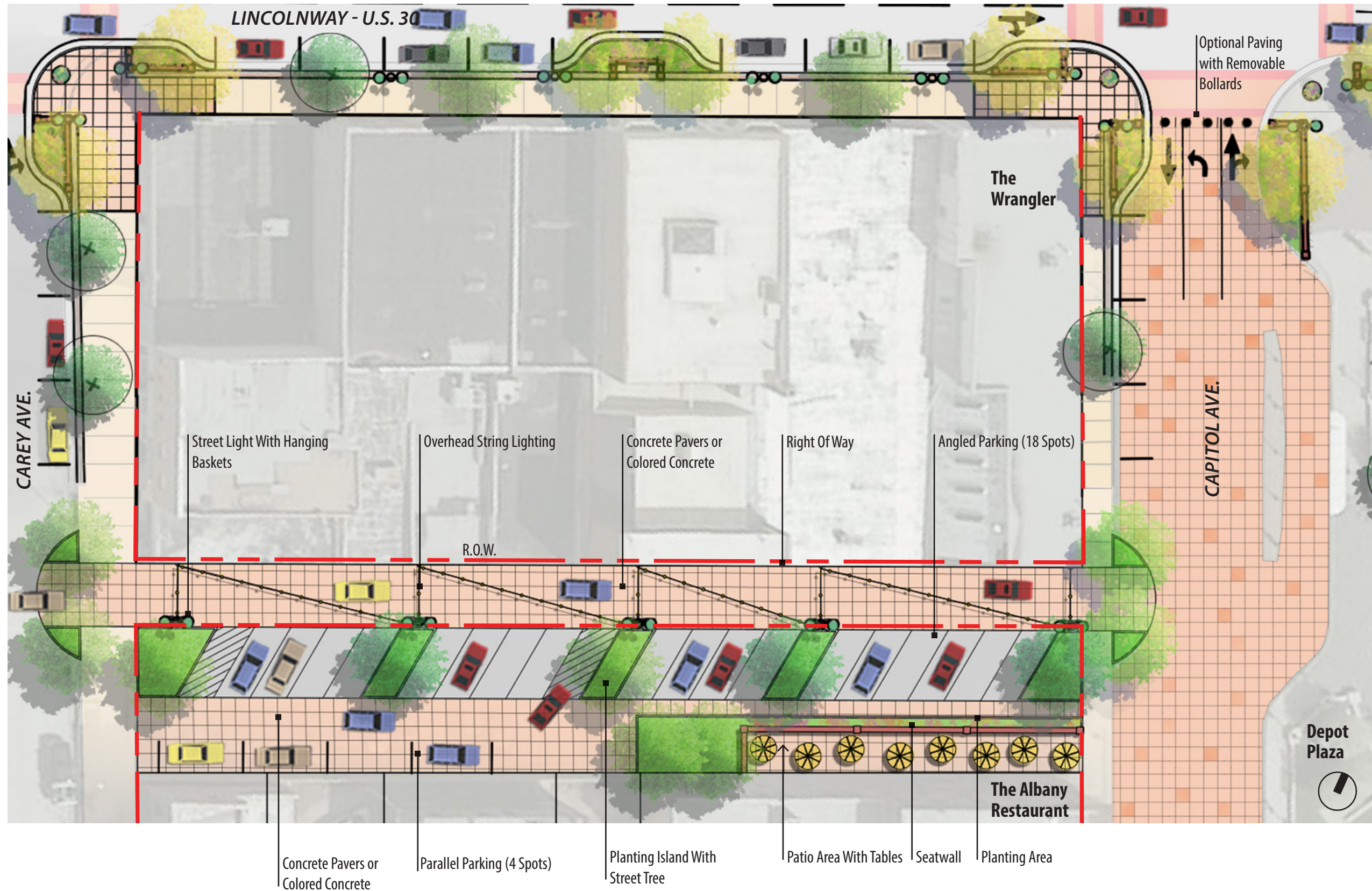
**HYBRID PLAN**  
**(PIONEER AVE. TO BENT AVE.)**





**HYBRID PLAN**  
(HOUSE AVE. TO CAREY AVE.)

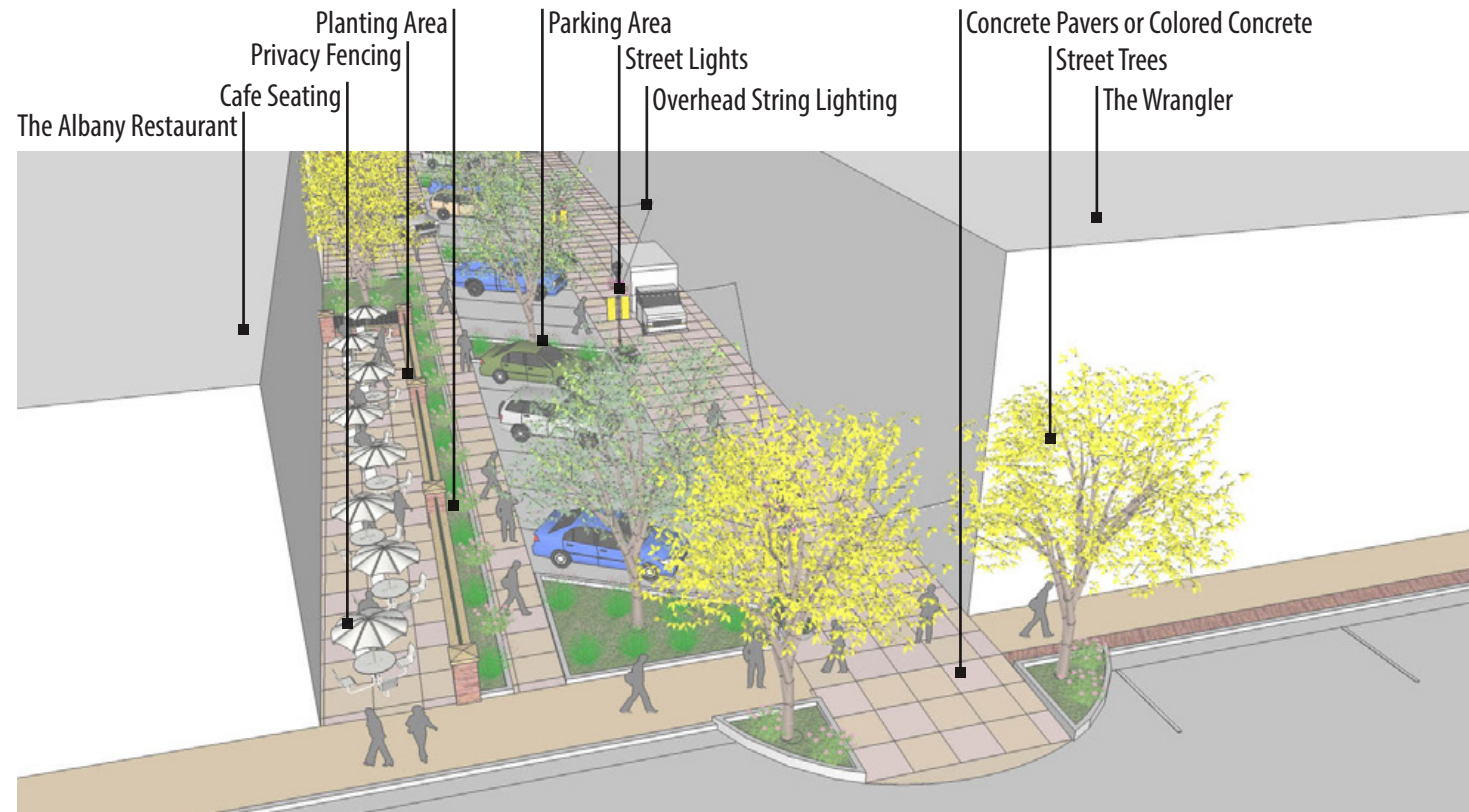




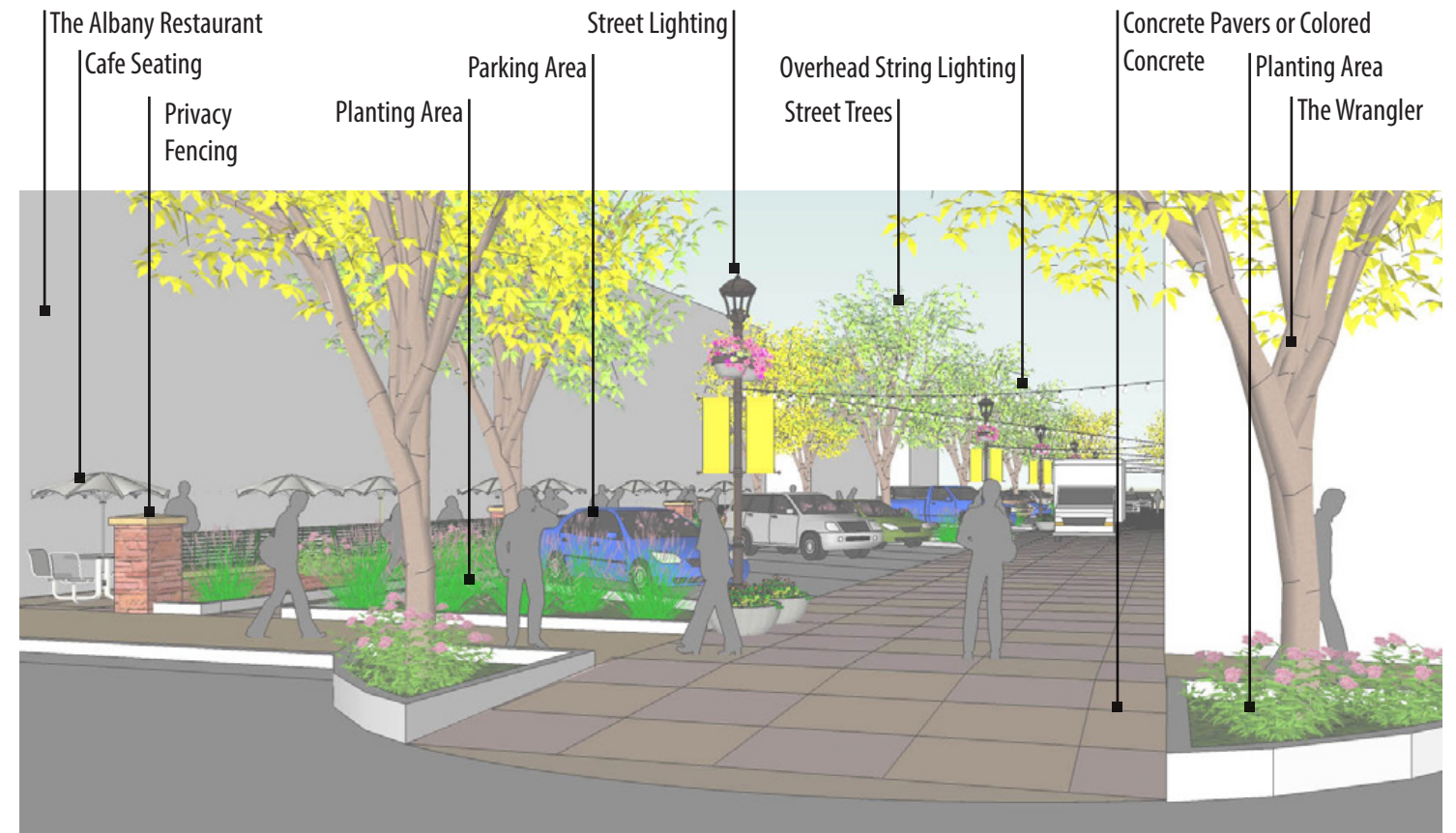
The above plan shows a potential plan for an enhanced multi-use alley from Carey Ave. to Capitol Ave. Diagonal parking is provided outside of the ROW to accommodate the needs of property owners. During events at the Depot Plaza, the parking spaces could be used for vendor tents with the alley closed for pedestrian use only. A courtyard with cafe seating is shown to the north of the Albany restaurant and parking is depicted along the remainder of the private property edge. Striped access

points are shown for vehicular access to this area. The alley ROW is enhanced with concrete or pavers, streetlights with hanging baskets and string lights spanning the ROW. Removable bollards at the intersection of Lincolnway and Capitol Ave. allow this segment of roadway to be closed during events, providing additional vendor space and enhancing east west pedestrian safety with a permeable crossing condition.





AERIAL VIEW FROM CAPITOL AVE. LOOKING WEST DOWN ALLEY



CAPITOL AVE. LOOKING WEST DOWN ALLEY

This hybrid plan depicts a 3-lane roadway configuration from Bent Ave. to Carey Ave. and a 5-lane configuration from Carey Ave. extending to the east. This concept allows for a 5-lane condition in the signalized zone to enhance traffic flow. Forced right turns that facilitate the 3-lane condition are shown at Bent Ave. and Carey Ave.

**ALLEY DESIGN**  
(CAPITOL AVE. TO CAREY AVE.)



Lincolnway Placemaking Project  
Cheyenne, WY

Table 1: Capacity Analysis - Existing and Future for Existing Configuration and 3-lane Configuration

Intersection on Lincolnway	Control	Movement	Scenario 1: Existing (2012) - PM Peak Hour						Scenario 2: Future (2032) - Future <sup>1</sup>					
			(A) Current Config.		(B) 3-Lane		(C) 3-Lane (Optimized) <sup>2</sup>		(A) Current Config.		(B) 3-Lane		(C) 3-Lane (Optimized) <sup>2</sup>	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Pioneer Avenue	Signalized	Overall	20.7	C	30.0	C	31.7	C	18.1	B	33.1	C	37.8	D
		EB TR	7.3	A	27.4	C	38.0	D	7.7	A	39.7	D	53.8	D
		WB L	1.1	A	2.4	A	7.3	A	0.8	A	2.8	A	7.4	A
		WB T	1.5	A	3.6	A	11.4	B	1.3	A	4.6	A	13.1	B
		SB L	82.0	F	82.0	F	52.9	D	76.1	E	76.1	E	50.4	D
		SB T	16.1	B	16.1	B	20.6	C	15.9	B	15.9	B	20.5	C
Carey Avenue	Signalized	Overall	8.1	A	61.3	E	15.2	B	8.4	A	81.9	F	24.4	C
		EB L	4.4	A	6.2	A	3.0	A	5.2	A	7.1	A	3.1	A
		EB T	5.6	A	95.9	F	20.1	C	6.0	A	>120	F	36.2	D
		WB TR	11.5	B	17.4	B	6.3	A	11.6	B	22.3	C	8.4	A
		NB LTR	16.8	B	16.8	B	31.5	C	16.6	B	16.6	B	31.3	C
Captiol Avenue	Signalized	Overall	13.2	B	47.9	D	24.2	C	13.2	B	69.6	E	35.6	D
		EB L	-	-	4.6	A	0.8	A	-	-	4.6	A	0.5	A
		EB LTR	15.4	B	81.4	F	31.5	C	15.9	B	>120	F	53.6	D
		WB L	-	-	11.5	B	8.1	A	-	-	11.5	B	10.1	B
		WB LTR	6.5	A	10.1	B	10.7	B	6.5	A	12.4	B	11.0	B
		NB L	17.3	B	17.3	B	27.8	C	17.1	B	17.1	B	28.3	C
		NB TR	18.0	B	18.0	B	28.7	C	17.9	B	17.9	B	29.4	C
		SB L	24.7	C	24.7	C	39.3	D	24.6	C	24.6	C	41.5	D
Central Avenue	Signalized	Overall	35.2	D	>120	F	37.1	D	47.7	D	>120	F	42.3	D
		EB T	30.9	C	18.4	B	34.3	C	59.4	E	49.3	D	53.4	D
		EB R	15.2	B	>120	F	18.6	B	13.4	B	>120	F	17.0	B
		WB L	126.7	F	>120	F	54.8	D	120.9	F	105.8	F	49.4	D
		WB T	9.8	A	15.3	B	15.6	B	11.3	B	17.0	B	18.0	B
		SB L	21.6	C	-	-	-	-	19.6	B	-	-	-	-
Warren Avenue	Signalized	Overall	16.8	B	>120	F	33.7	C	18.9	B	>120	F	60.4	E
		EB L	13.3	B	22.4	C	28.7	C	19.9	B	26.0	C	53.4	D
		EB T	16.4	B	17.5	B	15.5	B	15.9	B	15.9	B	10.8	B
		WB TR	17.5	B	-	-	-	-	23.5	C	-	-	-	-
		WB T	-	-	>120	F	53.9	D	-	-	>120	F	>120	F
		WB R	-	-	>120	F	12.8	B	-	-	>120	F	14.1	B
		NB LT	24.0	C	-	-	-	-	25.0	C	-	-	-	-
		NB L	-	-	14.8	B	20.8	C	-	-	14.9	B	21.0	C
		NB T	-	-	86.4	F	75.8	E	-	-	99.5	F	86.3	F
NB R	0.5	A	0.5	A	0.5	A	0.5	A	0.5	A	0.5	A		

Key Level of Service Findings

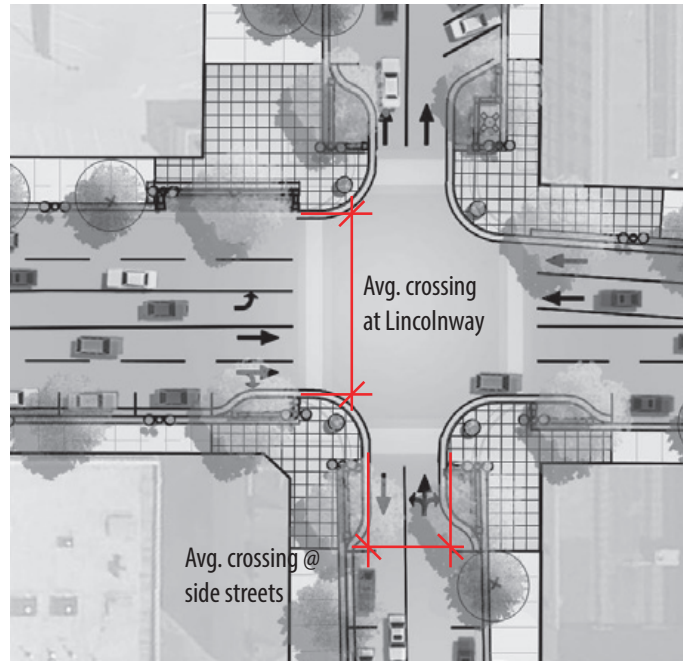
1. The capacity analysis focused on the PM Peak Hour since the volumes were the highest and this would be the most critical time period.
2. Pioneer Avenue and Central Avenue intersections have LOS F on one movement in the existing conditions (Scenario 1A).
3. In 2032 with the existing lane configuration and signal timing (Scenario 2A), there are four movements with LOS E or F at Pioneer Avenue and Central Ave.
4. The 3-Lane configuration is a viable option with optimization of the signal timing:
  - In 2012 (Scenario 1C), there is one LOS E on the NB through movement at Warren Avenue. This could be eliminated if this approach provided one shared left-turn/through lane, one through lane, and one right-turn lane.
  - In 2032 (Scenario 2C), the intersection at Warren Avenue will have two movements at LOS F and the overall intersection LOS as E. To improve these movements and the intersection, the NB approach needs to provide one shared left-turn/through lane, one through lane, and one right-turn lane. This would make the intersection operate at LOS C.

<sup>1</sup> Existing counts were grown by a 1% annual growth rate. This rate was calculated from the historical WYDOT AADTs and confirmed with the U.S. Census data.

<sup>2</sup> The signal timing was optimized to account for the demand and capacity. The cycle length increased to 90 seconds and the phases were optimized to reduce delay.

To estimate the 20-year horizon volumes, data from U.S. Census and WYDOT were collected and compared. Recent traffic counts and population estimates show a 1 percent annual growth rate over the past ten years. This was applied to the existing counts to estimate the future volumes. The existing and future volumes are shown in Figures 1 and 2. Lincolnway was modeled in Synchro (version 7.0) to determine the intersection and movement levels-of-service (LOS) with the existing conditions and proposed redevelopment options. The City of Cheyenne's Synchro models for the downtown area were updated with the most recent signal timing plans (provided by WYDOT), lane assignments, storage lengths, adjacent parking maneuvers, Peak Hour Factor (PHF), and balanced turning movement counts.





**AVG. CROSSING @ LINCOLNWAY**

Existing	59'
5 Lane	57'
3 Lane	46'

**AVG. CROSSING @ SIDE STREETS**

Existing	38.8'
5 Lane	30'
3 Lane	29'



**AVERAGE SIDEWALK WIDTH**

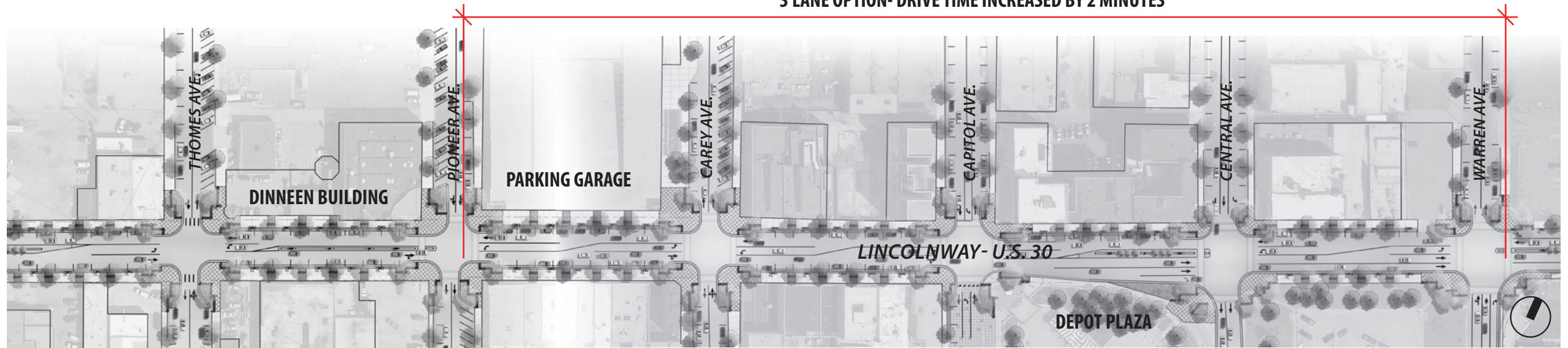
Existing	11.6'
5 Lane	12.3'
3 Lane	16.5'



**TOTAL PARKING SPOTS**

Existing	283
5 Lane	323 (+40)
3 Lane	344 (+61)

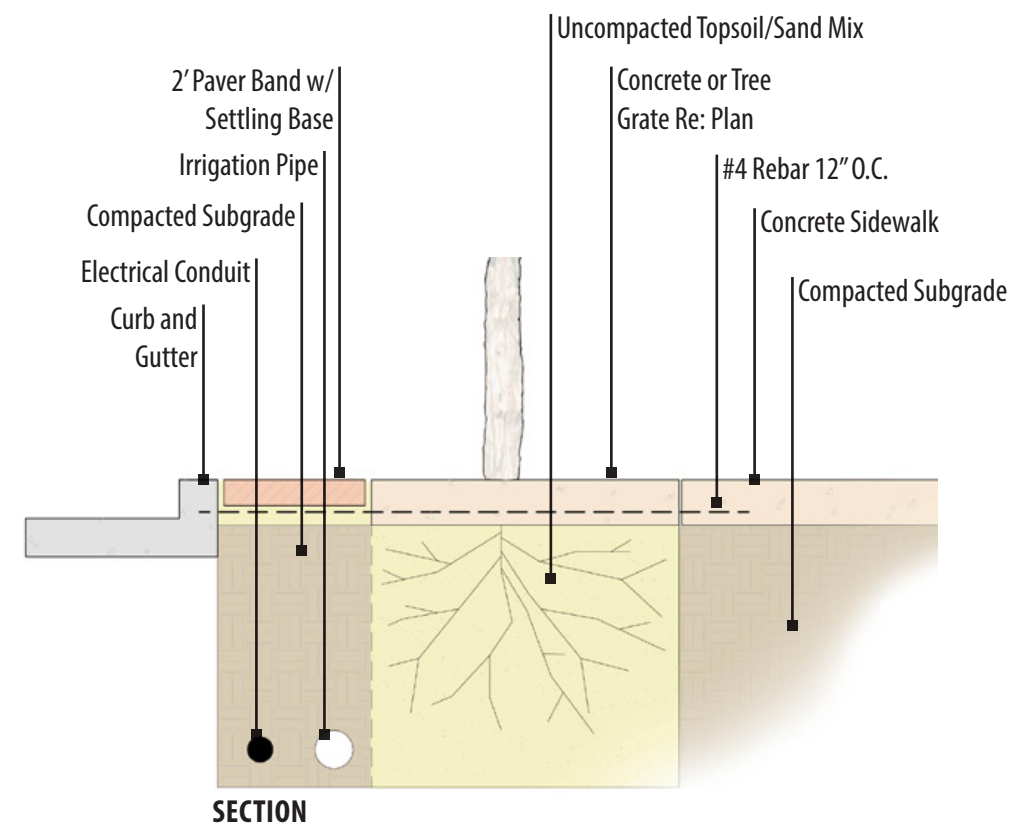
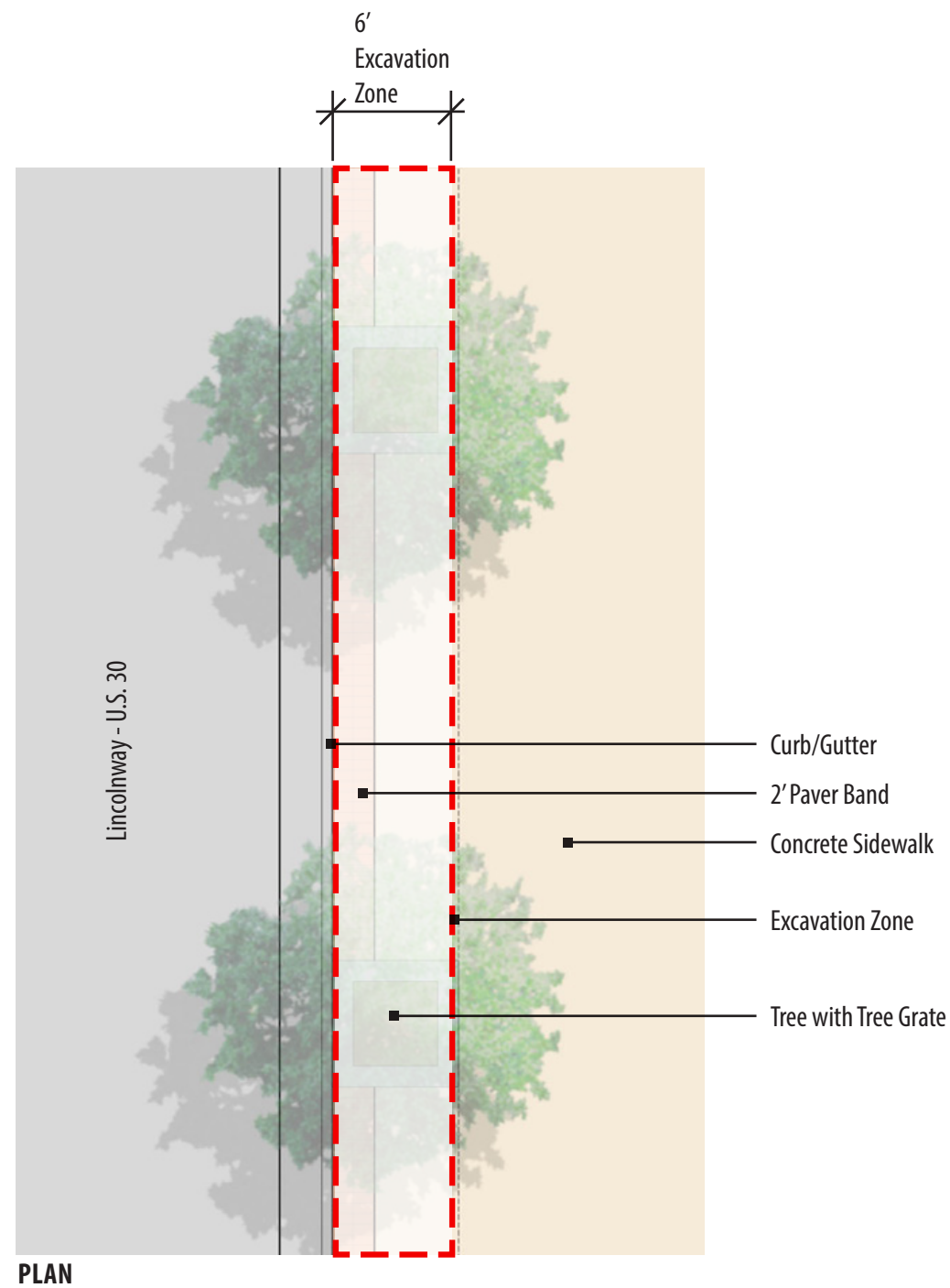
**3 LANE OPTION- DRIVE TIME INCREASED BY 2 MINUTES**



The 5 Lane Plan option expands average sidewalk widths along Lincolnway by a marginal amount (< 1'). Additional pedestrian spaces are only gained at intersection bulb-outs. This option also provides an additional 40 parking spaces along Lincolnway to serve downtown business and event parking.

The 3 Lane Plan option expands average sidewalk widths along Lincolnway by 5', thus creating more area for amenities such as benches, planters and cafe seating along bulb-outs at intersections. The drive time for this option would be increased by an estimated 2 minutes from Pioneer Ave. to Warren Ave. This option also provides an additional 61 parking spaces along Lincolnway to serve downtown business and event parking.



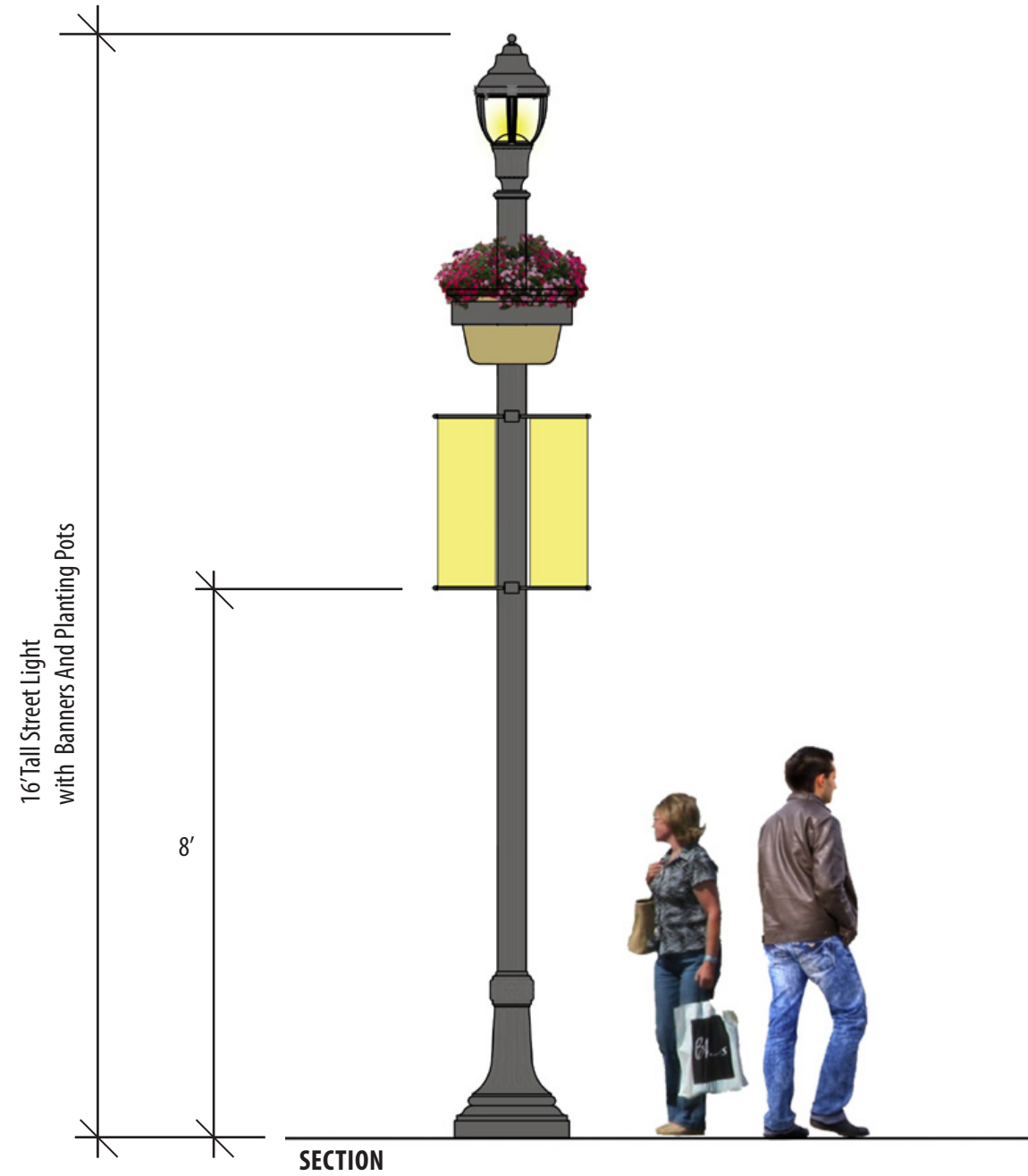


Additional street are to be planted along Lincolnway in both the 5 Lane and 3 Lane options. A 6' wide excavation zone will be cleared to accommodate the tree root ball and non compacted topsoil where new trees are proposed. Concrete above this zone is proposed to be reinforced at 12" O.C., creating a 'bridge' effect. Aeration pipes may be included as well to provide additional oxygen to roots. Between this additional oxygen to roots, the prevention of root binding and irrigation, the street trees should reach full growth potential, unlike the existing trees, which have likely become root bound, do not receive adequate oxygen to roots and do not likely receive adequate and consistent irrigation.

A 2' wide paver band will be installed between the tree grate and curb & gutter of Lincolnway. All of the street trees will have a tree grate to protect tree from soil compaction due to pedestrian activity.

## PLANTING DIAGRAM





FULL CUT-OFF LED STREET LIGHT

Street lighting is a key streetscape element both for safety and aesthetics. New street lighting is proposed along Lincolnway that will help create a sense of place with banners and hanging baskets while adding consistency, repetition and rhythm to the downtown streetscape. Full cut-off LED street lighting will both provide cost effective lighting for the city and light surfaces rather than the sky beyond, eliminating most of the point source lighting effect that currently dominates the downtown area.



## SURVEY RESULTS

### PROCESS

A series of survey questions were provided to assess public and stakeholder opinions regarding use frequency, interest in the project, perception of the current conditions along Lincolnway and agreement or disagreement with concepts within the overall plan alternatives. Respondents were then asked to state which alternative they feel is most appropriate - the 5 Lane Plan or 3 Lane Plan.

The survey was provided at several times throughout the project including a Farmer's Market event at the Depot Plaza, at Workshop #2, in a live polling format, and it was available on-line for several months.

Information was gathered from a total of eighty one respondents, although not all respondents answered all survey questions.

### SUMMARY

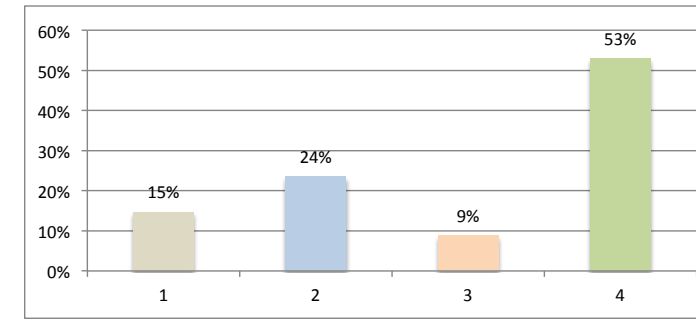
The numerical results of the survey are shown on the following pages. They can be summarized with the following statements:

1. Most respondents feel that as residents, they would like to see Lincolnway better reflect Cheyenne's history, values and civic pride.
2. Most respondents travel through the Downtown section of Lincolnway 3-5 times per week.
3. Most respondents feel that the travel and Main Street functions of Lincolnway are equally important.
4. Most respondents feel moderately safe/comfortable when walking along or crossing Lincolnway.
5. Most respondents feel it is very important to provide additional street trees, benches, plantings and other pedestrian amenities in the Downtown area along Lincolnway.
6. Most respondents are very willing would you be to spend 2 additional minutes driving down Lincolnway in order to improve pedestrian comfort and safety in the Downtown area.
7. Most respondents feel it is very important to provide additional parking along Lincolnway in the Downtown area.
8. Most respondents feel it is very important to foster business growth and economic vitality along Lincolnway in the Downtown area.
9. Most respondents feel that more stores and a stronger retail environment would most likely to encourage you to come Downtown more often.
10. Most respondents feel that they would most like to see the 3-lane cross section implemented along Downtown Lincolnway.



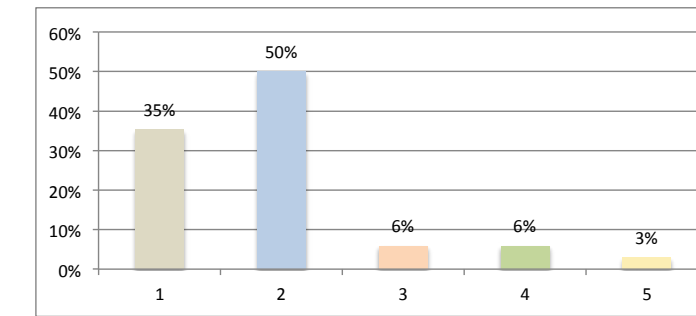
**What is your main interest in the Downtown section of Lincolnway? (Multiple Choice)**

	Responses	
	Percent	Count
1. I own a business along the corridor or in Downtown	15%	5
2. I frequently patronize Downtown restaurants and businesses	24%	8
3. I like to come Downtown for events	9%	3
4. As a resident I would like to see Lincolnway better reflect Cheyenne's history, values, and civic pride	53%	18
<b>Totals</b>	<b>100%</b>	<b>34</b>



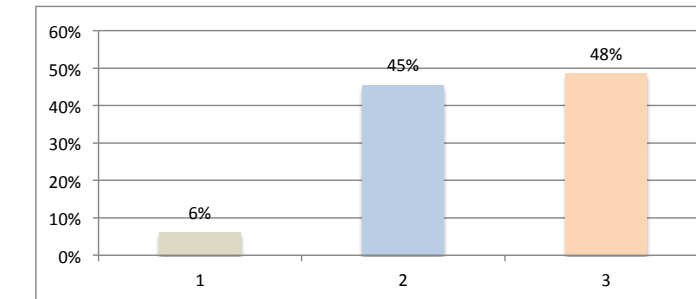
**On average, how often do you travel to or through the Downtown section of Lincolnway? (Multiple Choice)**

	Responses	
	Percent	Count
1. Daily (or multiple times each day)	35%	12
2. 3-5 times per week	50%	17
3. Once a week	6%	2
4. Once a month	6%	2
5. Almost never	3%	1
<b>Totals</b>	<b>100%</b>	<b>34</b>



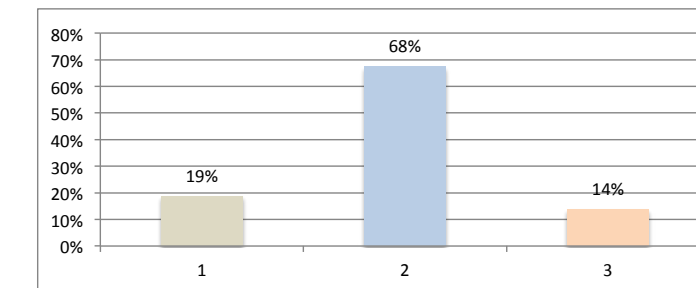
**Which of the following statements best describes how you feel about the Downtown Lincolnway corridor? (Multiple Choice)**

	Responses	
	Percent	Count
1. Lincolnway is/should remain primarily a "through" or "travel" corridor – a way to get from point A to point B	6%	2
2. Lincolnway should function more like a Main Street, with a "park once" or "stop and shop" environment	45%	15
3. The travel and Main Street functions of this corridor are equally important	48%	16
<b>Totals</b>	<b>100%</b>	<b>33</b>



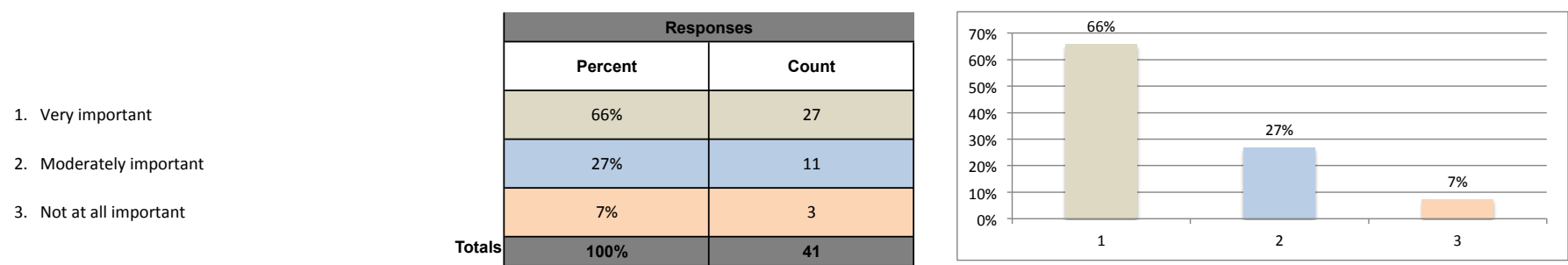
**How safe/comfortable do you feel when walking along or crossing Lincolnway in the Downtown area? (Multiple Choice)**

	Responses	
	Percent	Count
1. Very safe/comfortable	19%	15
2. Moderately safe/comfortable	68%	54
3. Not at all safe/comfortable	14%	11
<b>Totals</b>	<b>100%</b>	<b>80</b>

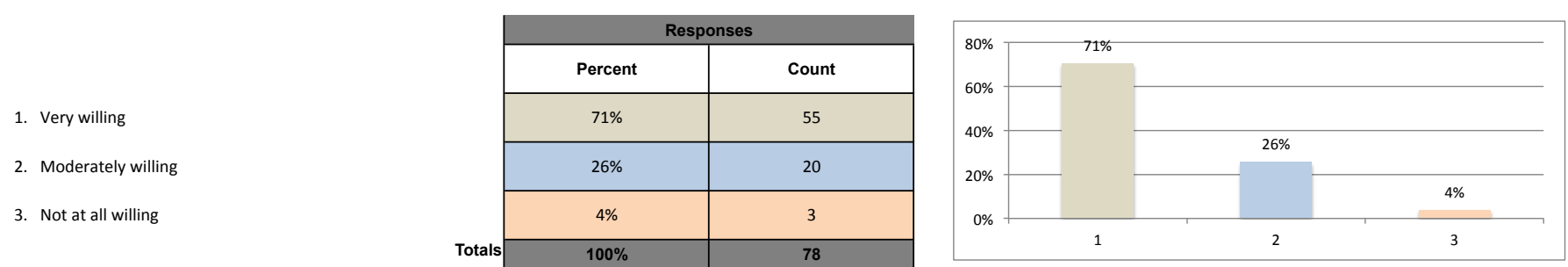




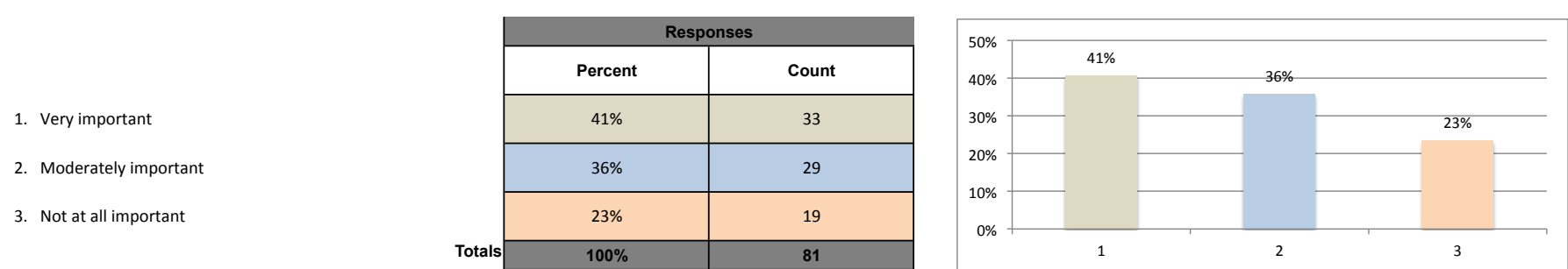
**How important is it to provide additional street trees, benches, plantings and other pedestrian amenities in the Downtown area along Lincolnway? (Multiple Choice)**



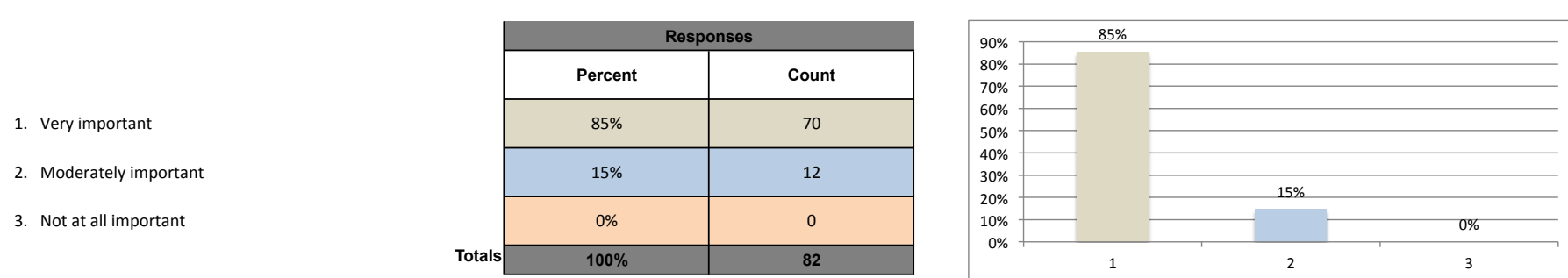
**How willing would you be to spend 2 additional minutes driving down Lincolnway in order to improve pedestrian comfort and safety in the Downtown area? (Multiple Choice)**



**How important is providing additional parking along Lincolnway in the Downtown area? (Multiple Choice)**



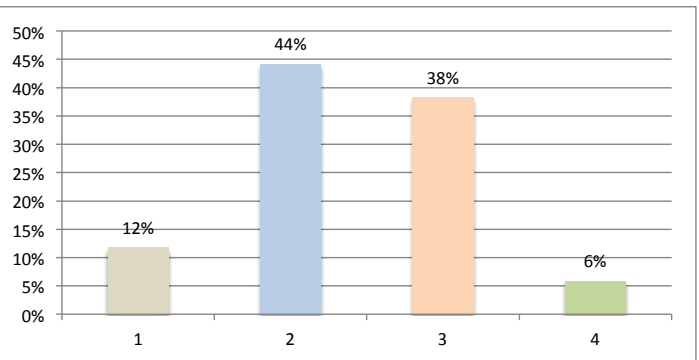
**How important is it to foster business growth and economic vitality along Lincolnway in the Downtown area? (Multiple Choice)**





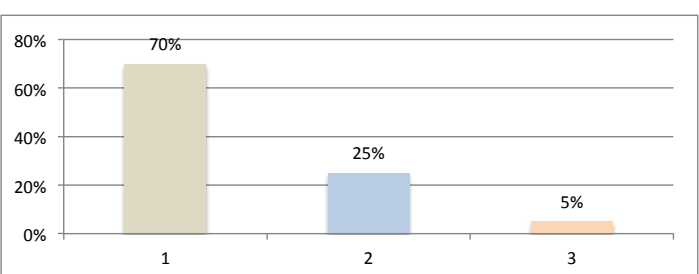
**Which of the following factors would be most likely to encourage you to come Downtown more often? (Multiple Choice)**

	Responses	
	Percent	Count
1. An enhanced pedestrian environment (safer, more comfortable, more attractive)	12%	4
2. More stores/stronger retail environment	44%	15
3. Greater selection of restaurants	38%	13
4. More events (e.g. Farmers Market, Fridays on the Plaza)	6%	2
<b>Totals</b>	<b>100%</b>	<b>34</b>



**Which of the following cross sections would you most like to see implemented along Downtown Lincolnway? (Multiple Choice)**

	Responses	
	Percent	Count
1. The Proposed 3 Lane Alternative	70%	14
2. The Proposed 5 Lane Alternative	25%	5
3. Make no changes to the existing roadway	5%	1
<b>Totals</b>	<b>100%</b>	<b>20</b>



Public Survey Results  
 May 7, 2013  
 Keypad Polling and On-Line Survey



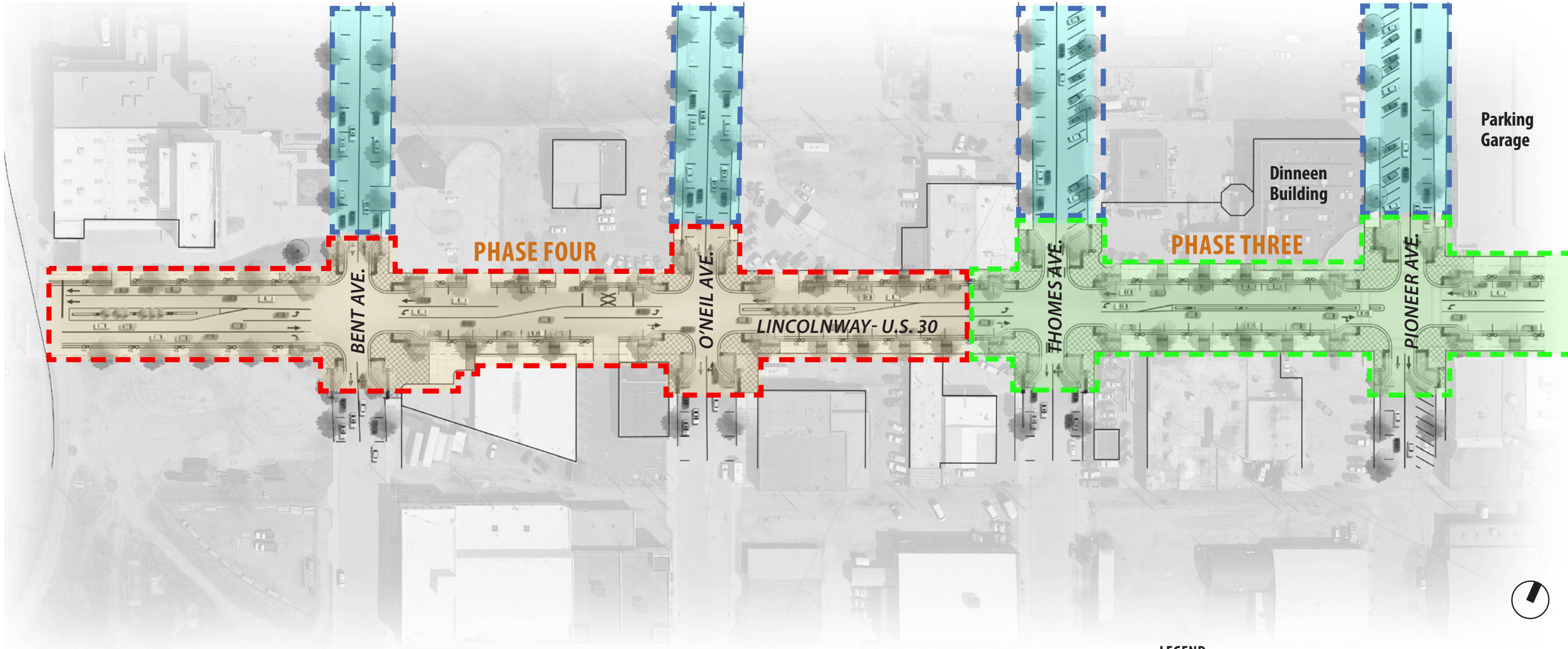


### 3 LANE PLAN

After receiving feedback from the public, business owner, WYDOT and the City of Cheyenne it is the recommendation of this report to pursue the 3 lane plan. This plan allows for increased parking along Lincolnway that will better serve the downtown business and provide for additional event parking at the Depot Plaza. A consistent pattern of street trees and pedestrian light poles will enhance safety and character. Proposed corner bulb-outs at intersections will provide safe pedestrian crossings and much needed pedestrian spaces for dining and gatherings. The plan calls for an average 5' widening of all sidewalks along Lincolnway. This will provide a safer feel for pedestrians as they move up a down the corridor. It is anticipated that this level of reconstruction will greatly inspire redevelopment and infill in Downtown as well as additional retail use.

Additional Level of Service Analysis is required to confirm this recommendation, taking into account non-signalized intersections and signal timing in





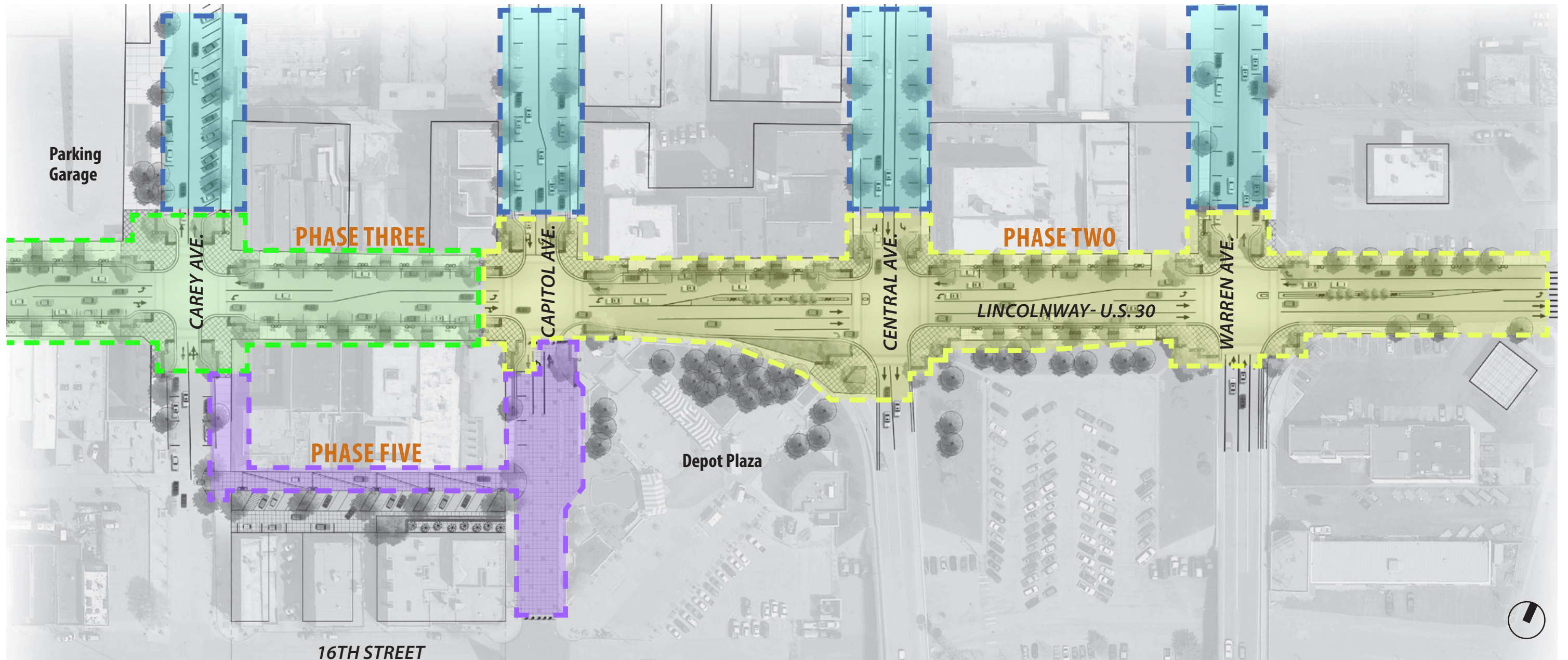
Project phasing is first prioritized in terms of ease of construction and costs, then prioritized towards proximity to the Depot Plaza and eastern project gateway at Lincolnway and Warren/Central.

North-south streets should first receive re-striping to accommodate plans for diagonal parking. Phase one then follows at the eastern gateway, from the west side of the House Ave. intersection running west to the west side of the Capitol Ave. intersection. Phases are then broken down into three block segments extending to the western extents of intersection improvements as follows: Capitol Ave. to Thomes Ave., Thomes Ave. to the railroad. Phase five then consists of alley improvements connecting Capitol Ave. to Carey Ave.

- LEGEND**
- Phase One - Parking Striping Along North-South Streets
  - Phase Two - House Ave. to Capitol Ave.
  - Phase Three - Capitol Ave. to Thomes Ave.
  - Phase Four - Thomes Ave. to Reed Ave.
  - Phase Five - Alley at Capitol Ave. to Carey Ave.

**PHASING DIAGRAM**





**LEGEND**

- ▬▬▬ Phase One - Parking Striping Along North-South Streets
- ▬▬▬ Phase Two - House Ave. to Capitol Ave.
- ▬▬▬ Phase Three - Capitol Ave. to Thomes Ave.
- ▬▬▬ Phase Four - Thomes Ave. to Reed Ave.
- ▬▬▬ Phase Five - Alley at Capitol Ave. to Carey Ave.

**PHASING DIAGRAM**



<b>3 Lane Cost Estimate (Preferred Plan)</b>				
<b>PHASE 1</b>				
Restriping Parking along North-South Street				\$1,000
<b>PHASE 2</b>				
House Ave. to Capitol Ave.				\$3,368,893
<b>PHASE 3</b>				
Capitol Ave. to Thomes Ave.				\$3,142,568
<b>PHASE 4</b>				
Thomes Ave. to Reed Ave.				\$2,344,330
<b>PHASE 5</b>				
Alley @ Capitol Ave. to Carey Ave.				\$871,569
* Prices are for work completed in 2013 and 2014, apply 4% inflation per year after 2014			<b>GRAND TOTAL</b>	<b>\$9,728,360</b>

The following opinion of probable costs were developed through unit price/line item based estimates using unit costs from recent bids. The estimates are broken into phases and correspond to the 3-Lane and 5-Lane cross sections. The 5-Lane estimate shows an option of maintaining existing concrete pavement, or replacing all concrete pavement along sidewalks. Bulbouts and intersection paving is replaced in both options.



<b>5 Lane Cost Estimate (Excavating just for trees &amp; patch sidewalks)</b>				
<b>PHASE 1</b>				
Restriping Parking along North-South Street				\$1,000
<b>PHASE 2</b>				
House Ave. to Capitol Ave.				\$2,384,309
<b>PHASE 3</b>				
Capitol Ave. to Thomes Ave.				\$2,086,323
<b>PHASE 4</b>				
Thomes Ave. to Reed Ave.				\$1,276,918
<b>PHASE 5</b>				
Alley @ Capitol Ave. to Carey Ave.				\$871,569
* Prices are for work completed in 2013 and 2014, apply 4% inflation per year after 2014			<b>GRAND TOTAL</b>	<b>\$6,620,119</b>
<b>5 Lane Cost Estimate (Full excavation for trees &amp; all sidewalks replaced)</b>				
<b>PHASE 1</b>				
Restriping Parking along North-South Street				\$1,000
<b>PHASE 2</b>				
House Ave. to Capitol Ave.				\$2,658,336
<b>PHASE 3</b>				
Capitol Ave. to Thomes Ave.				\$2,518,341
<b>PHASE 4</b>				
Thomes Ave. to Reed Ave.				\$1,511,028
<b>PHASE 5</b>				
Alley @ Capitol Ave. to Carey Ave.				\$871,569
* Prices are for work completed in 2013 and 2014, apply 4% inflation per year after 2014			<b>GRAND TOTAL</b>	<b>\$7,560,274</b>