



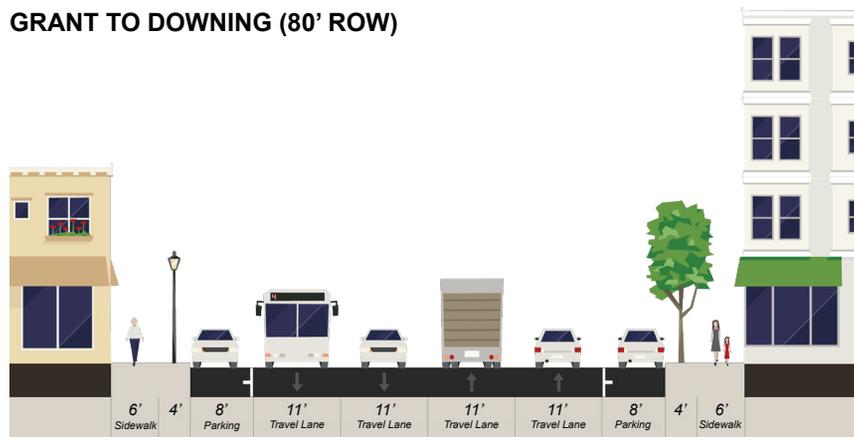
2.0 ACCESSIBILITY

EXISTING STREET SECTIONS

Two street section conditions exist in the district:

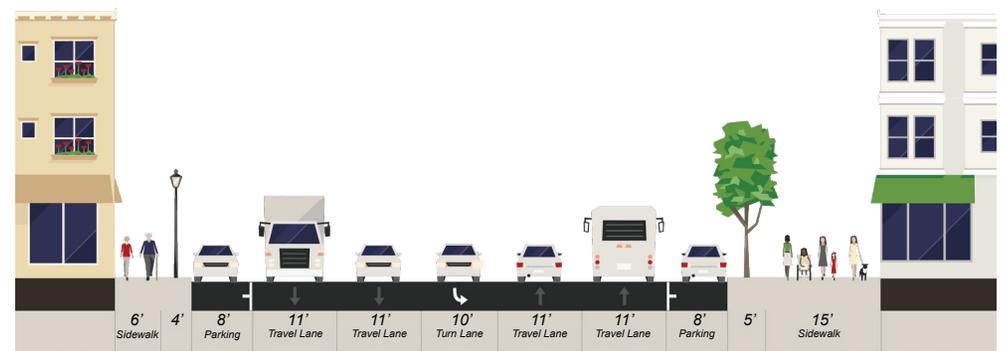
	GRANT TO DOWNING	DOWNING TO JOSEPHINE
# of Blocks	8	12
Public Right-of-Way	80-feet	100-feet
Curb-to-Curb Width	60-feet	70-feet
Travel Lanes	4 (2 each direction)	4 (2 each direction)
Left Turn Lane	Restricted (only allowed on 2 out of 8 blocks)	Allowed (except SB at Downing and NB at York)
Bus Stops	Yes (curbside in place of parking)	Yes (curbside in place of parking)
Signalized Intersections	6 out of 8 (75%) signalized	7 out of 12 (58%) signalized
Offset Intersections	3 out of 8 (38%) (Emerson, Ogden, & Corona/Downing)	3 out of 12 (25%) (Marion, Lafayette, Humboldt)
Sidewalks + Amenity Zone	10-feet (both sides)	20-feet (north side); 10-feet (south side)
On-street Parking	One-side of street where turn lanes present; Both sides of street where turn lanes are NOT present	Both sides of street
Street Trees	Not consistent (approx. 20 trees on 16 block faces)	Fairly consistent from Downing to Franklin; not consistent east of Franklin (approx. 60 trees on 24 block faces)

GRANT TO DOWNING (80' ROW)



This section has an 80' ROW and is symmetrical. Where turn lanes are present, a parking lane is removed from one side of the street.

DOWNING TO JOSEPHINE (100' ROW)



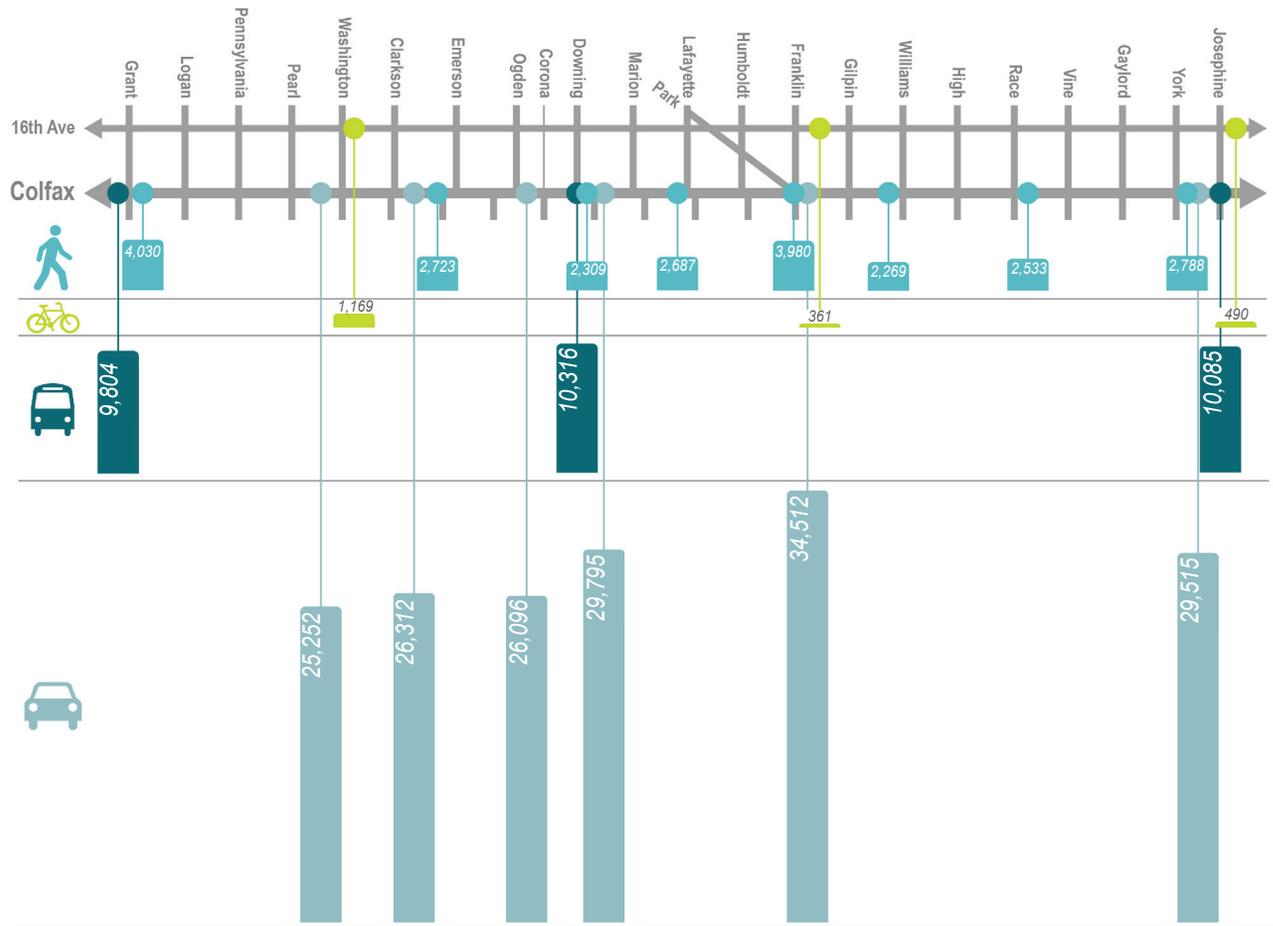
This section has a 100' ROW and is asymmetrical. A continuous left turn lane is consistent, as well as a wider sidewalk on the north side.

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TRAVEL MODE COMPARISONS

The following data for various transportation modes was collected as part of this study to assist with making recommendations for streetscape improvements:

- **Pedestrian counts** - This data was collected using CDOT cameras and was conducted during one-week periods between May and July 2016. The data concludes that higher levels of pedestrian counts occur on the west end of the study area, and near the intersection of Colfax, Franklin, and Park Avenue. Hourly pedestrian count analysis concludes that pedestrian traffic peaks around the midday and early afternoon hours and is slightly lower on weekend days.
- **Traffic counts** - this data was collected from Denver Regional Council of Governments (DRCOG). It suggests highest traffic volumes along Colfax at York/Josephine, Franklin, and Downing intersections. Generally, the corridor ranges from 25,000-35,000 average cars per day (weekday only).
- **Bike counts** - this data was collected from CDOT in August of 2013. With the Denver B-cycle program rising by [43 percent](#) in 2014 and bicycling in the Denver region growing, it is expected that these numbers would be higher by today's counts and still rising.
- **Bus counts** - this data was collected from RTD's Fall 2014 Ridecheck Plus program. It indicates total average daily (weekday) passenger loads for both the 15 and 15L routes. It suggests higher ridership at Downing and Josephine, although those stops are also major bus transfer stations.



This chart suggests that, while driving is the dominant mode along the East Colfax corridor, a significant proportion (about one-third) of people are walking, biking, or riding the bus, and this proportion is expected to increase significantly with the planned implementation of bus rapid transit (BRT).

Specifically note where high auto counts meet high pedestrian, bus and bike counts. These are areas that are most in need of pedestrian safety improvements due to high conflict zones. They include Grant, Downing, Park Avenue, and York/Josephine.

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PEDESTRIAN SAFETY

There were 105 crashes involving pedestrians within the study area from 2012 to 2015. The vast majority (89) were located along Colfax Ave. Most (73) resulted in injuries, and one (at Colfax and Logan) resulted in a fatality. It should also be noted that crash locations are approximate because the Denver Police Department assigns their location to the nearest intersection (even if they occurred at a mid-block location).

Colfax/Franklin and **Colfax/Pennsylvania** stand out as having especially high numbers of pedestrian-involved crashes (with 10 and 9, respectively). Colfax/Franklin is a five-way intersection where Colfax, Park Ave, and Franklin Street all converge, creating awkward diagonal crossing angles, longer crossing distances, poor sight lines for drivers and pedestrians, increased conflict points, and longer wait times for a pedestrian crossing phase (which increases the likelihood of pedestrians crossing without a walk signal).

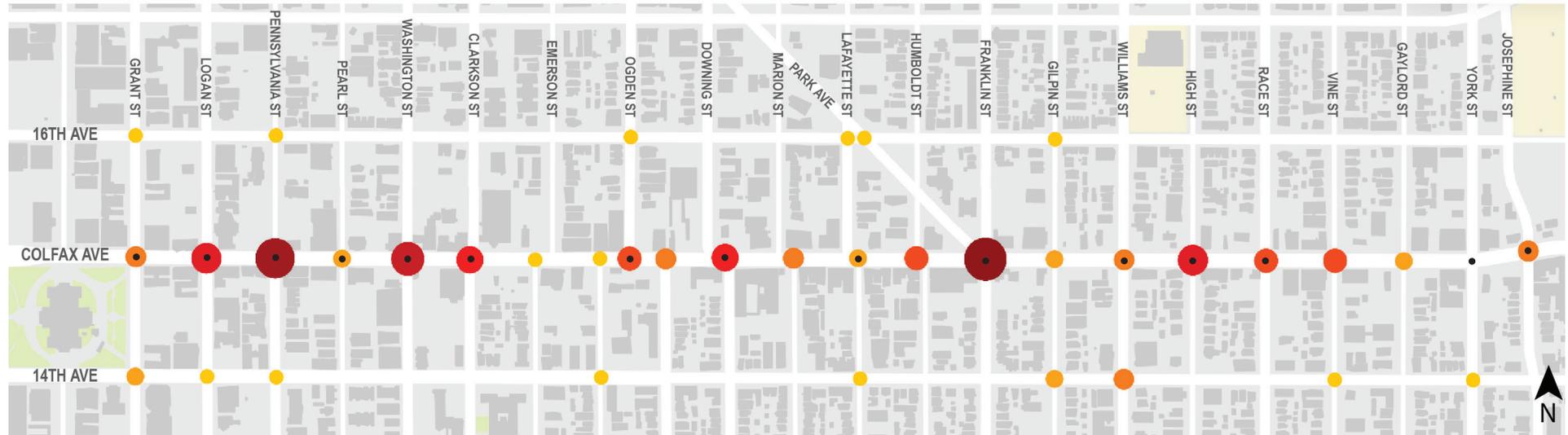
Colfax/Washington, Colfax/Logan, Colfax/High, Colfax/Clarkson, and Colfax/Ogden also have especially high rates of pedestrian-involved crashes, with at least five occurring over the four years between 2012 and 2015.

This diagram also shows signalized intersections, and therefore include marked pedestrian crossings. Fifteen of the twenty-one intersections (71%) are signalized and marked. Beginning at Emerson Street, and continuing east for 6 blocks, the streets north and south of Colfax do not align, making these skewed intersections difficult to navigate as a pedestrian.

“Where walking is unrelentingly delightful, all transportation modes start and end with a walking trip. Do not ever sacrifice a quality pedestrian experience for the efficiency of other modes of transportation.”

- Jeffrey Tumlin, Nelson\Nygaard

Pedestrian-Involved Crashes, 2012 - 2015

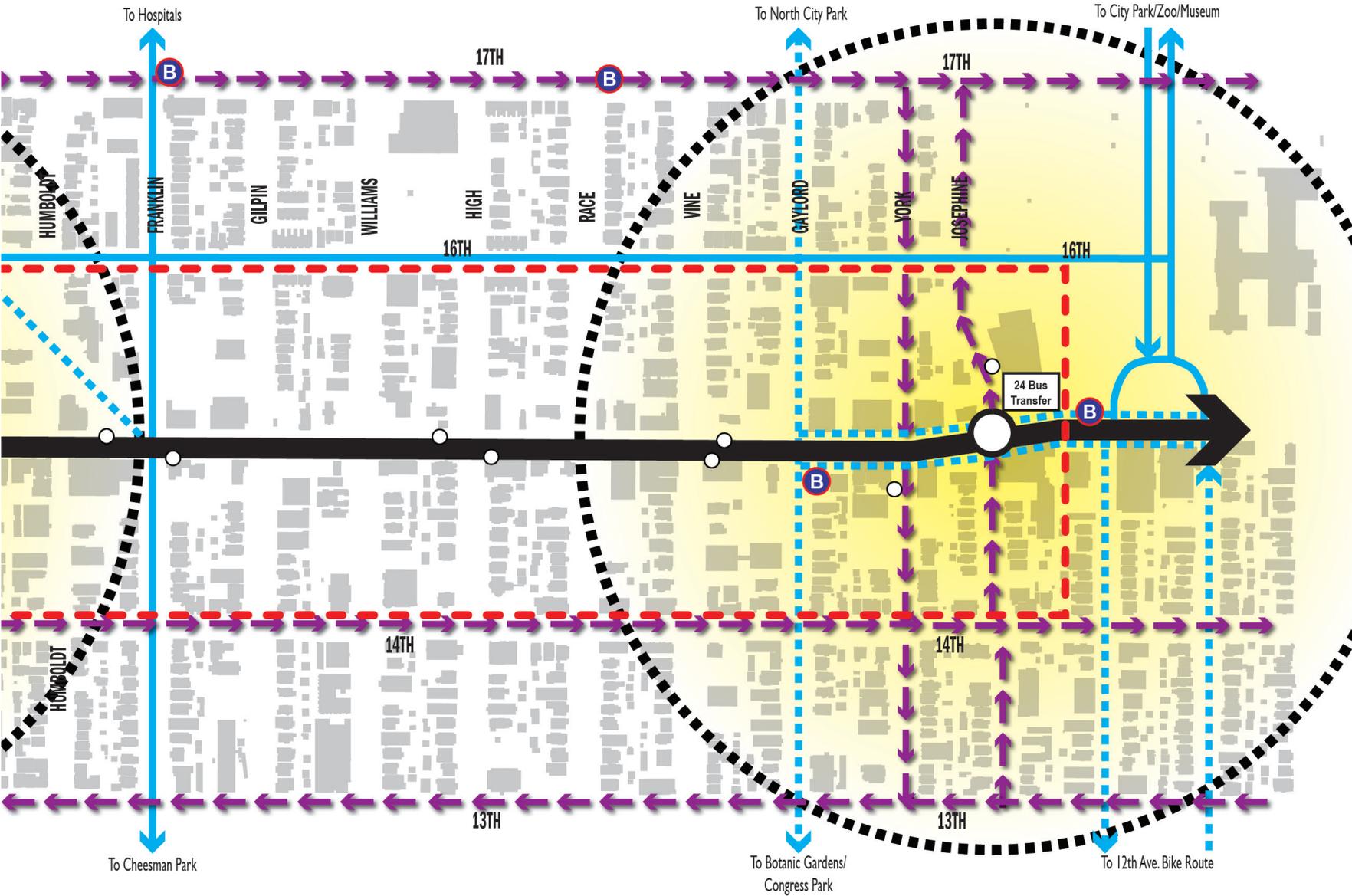


Total Number of Pedestrian-Involved Crashes:



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-  One-way couplets
-  Existing bike facility
-  Proposed bike facility
-  1/4 mile radius
-  Existing bus stop
-  Future BRT stop
-  B-Cycle station



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TRANSIT:

STREET GRID:

This study area is located within the cardinal (north-south-east-west) grid. Because of this orientation, Colfax is served by multiple streets and short blocks that direct pedestrian and bike traffic from the adjoining dense neighborhoods to its neighborhood supporting uses. This orientation also creates a “sunny” side (north) and a “shaded” side (south) of the street which tends to affect street activity and uses. It also includes a repeating pattern of alley intersections with Colfax – offering the possibilities of additional off-Colfax pedestrian spaces, and the extension of active uses.

Between Clarkson and Humboldt the north-south street grid shifts, creating complexity in the intersection geometries which make difficult vehicular and pedestrian conflicts at these crossings.

Added to the grid shift is the diagonal orientation of Park Avenue. Its intersection with Colfax and Franklin produces one of the most dangerous intersections in the City. For more information on concepts to improve this intersection, refer to Chapter 6.

The shift in grids has the interesting side effect of focusing views on buildings and properties as one approaches Colfax from the north or south. This is discussed in more detail in Chapter 3.

COUPLETS:

Colfax is bracketed by two important one-way couplets: 13th and 14th Avenues and 17th and 18th Avenues which serve the entire east side of Denver to its border with Aurora. As such, these couplets take much of the regional traffic burden off Colfax, allowing Colfax to be a calmer two-way traffic street and a transit spine. The two-way nature of Colfax feeds a robust and sustainable retail, restaurant and entertainment based land use mix.

There are also a series of north-south one-way couplets that intersect Colfax Ave:

- *Grant (southbound) & Logan (northbound)*
- *Washington (southbound) & Clarkson (northbound)*
- *Ogden/Corona (southbound) & Downing (northbound)*
- *York (southbound) & Josephine (northbound)*

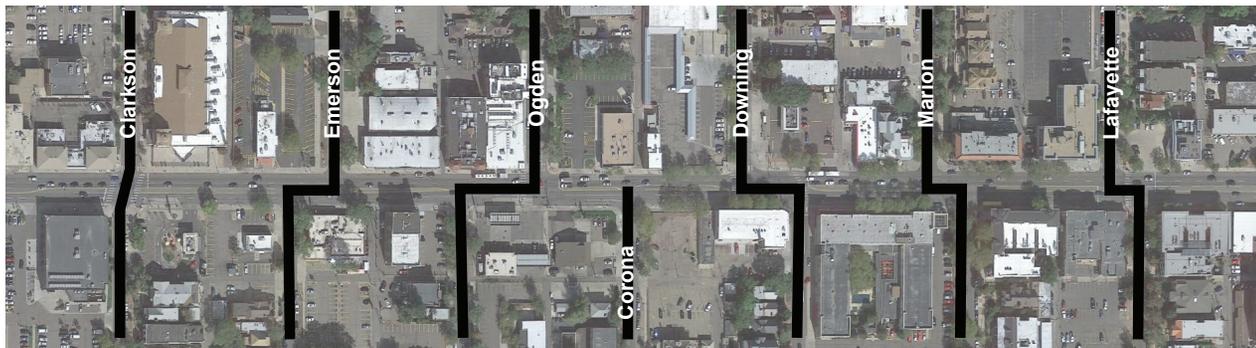
The couplet system is shown on the diagram on the previous page in purple arrows.

Due to Colfax’s length and direct connection to downtown’s concentration of transit hubs centered around the 16th Street Mall, Civic Center Station and Union Station, Colfax’s 15 and 15L lines include some of the highest ridership in the city - with 22,000 passenger trips per weekday.

This “spine” will be reinforced with a proposed Bus Rapid Transit (BRT) route that will link the Fitzsimons medical center in Aurora to downtown and all of the neighborhoods between the two anchors, spurring continued residential, commercial and office development along Colfax. BRT stops are planned to replace 15L stops at Grant, Downing, and Josephine (shown in the diagram with a 1/4 mile radius, or 5-minute walk shed, shown in yellow). The 15 will still serve these locations with the stops either close or at the same as BRT stations.

Other local bus routes that intersect the corridor and create major bus connections include the 12 (at Corona/Downing) and 24 (at York/Josephine).

This plan assumes the latest thinking for the future BRT line, which would operate in the outside lanes of Colfax during peak hours. The BID should consider whether the Park Avenue intersection makes sense to locate a BRT station, due to its high priority and future vision for a major public space.



Between Clarkson and Humboldt, the north-south street grid shifts, creating complexity in the intersection geometries which make difficult vehicular and pedestrian conflicts at these crossings.



Preliminary plans for BRT station at Colfax/Grant. Source: City of Denver Public Works.

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Since Downing is one of the grid shift's off-set street intersections, a major BRT stop at this intersection should focus design attention on clarifying the complex pedestrian, bike, bus and vehicular movements within the intersection.



Preliminary plans for BRT station at Colfax/Downing (north).
Source: City of Denver Public Works.



Preliminary plans for BRT station at Colfax/Downing (south).
Source: City of Denver Public Works.



Preliminary plans for BRT station at Colfax/Josephine.
Source: City of Denver Public Works.

BIKE TRAVEL:

Bicycling should be encouraged to increase transit access and thus lessen the load on traffic congestion. 16th Avenue, running parallel to Colfax one block north, is a highly active bike route with bike lanes. There are also designated bike routes on Ogden (south of Colfax), Franklin Street and at the City Park Esplanade in front of East High. The BID should actively pursue more bike lanes or routes, especially as the BRT line comes online to create safe first and last mile connections to major transit stops. Bike infrastructure recommendations are highlighted on the following page. Bike storage along the street, and particularly at bus stops should also be accommodated within the new streetscape design.



The existing bus stop at Colfax and Downing is very limited in space. The new BRT stop is proposed to include a bulb-out which will provide approximately 8-feet more sidewalk area in front of the existing building. The bus shelter will also be moved west of the existing building to provide more space around the shelter.

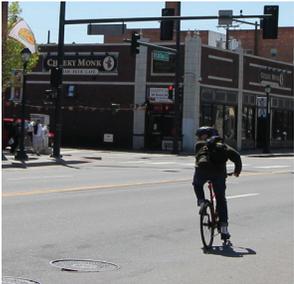


Bicycle improvements proposed for Colfax/Downing intersection and BRT station.

Source: City of Denver Public Works, David Evans Associates; Colfax Multimodal Access Study

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ACCESSIBILITY “STREET SCENES”



There are three B-Cycle stations within the study area, which are highly used. More should be encouraged.

People ride on Colfax even though there are not dedicated facilities, which is dangerous. Providing an efficient bike network throughout the area is needed.

Bike parking is needed along Colfax. Many bike racks are overflowing in high traffic areas. Some new special branded bike racks have recently been installed on the corridor.

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Most bus stops include a bench, trash receptacle and information sign. However, a few include the sign and no bench, which is easy to miss. Very few stops have shelters.



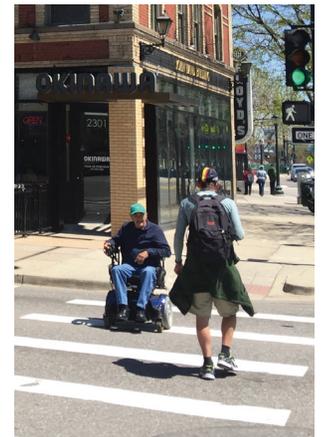
In the area with offset intersections, left turns are often restricted, or they create a conflict zone.



Sidewalks nearest the State Capitol, where pedestrian counts are higher, are narrower than sidewalks on the west side.



The intersection of Colfax, Franklin and Park Avenue is one of the most dangerous in the city for pedestrians. The traffic movement is confusing and the travel distances for pedestrians is longer than usual. The five-way intersection also creates low visibility. This intersection needs serious attention.



Alternative mobility also includes wheelchairs and skateboards, which are often seen on Colfax.

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ACCESSIBILITY IMPLEMENTATION TASKS

	DESCRIPTION:	DUTY:	ACTION ITEMS FOR BID:
CONSTRUCTION PHASE 1: 2018-19 - Safety and Identity Improvements Phase			
M.1 - NEW PEDESTRIAN-ACTIVATED CROSSING SIGNAL AT EMERSON	<i>Implement pedestrian-activated signal (Rapid Rectangular Flashing Beacon, or similar) at Emerson Street</i>	CDOT PW	<i>Meet with CDOT and PW to present pedestrian traffic and safety data and reasoning for location (Emerson = high traffic, offset intersection)</i>
M.2 - NEW TRAFFIC SIGNAL AT GAYLORD	<i>Implement a full traffic signal and crosswalk at Gaylord Street intersection with Colfax.</i>	CDOT PW	<i>Meet with CDOT and PW to present pedestrian traffic and safety data and reasoning for location (Gaylord = high traffic, future bike route location)</i>
M.3 - COLFAX AVE PROTECTED BIKE LANES (GAYLORD TO JOSEPHINE)	<i>Incorporate parking protected bike lane on both sides of Colfax from Gaylord to Josephine as part of the “place node” and “premium zone” phase.</i>	CDOT PW	<i>Meet with CDOT and PW to present accessibility argument to and from 15L station, as well as the importance of incorporating bike lanes as part of the placemaking and identity phase.</i>
CONSTRUCTION PHASE 2: 2020-22 - Beautification and Build-Out Phase			
M.4 - GRANT STREET PROTECTED BIKE LANE	<i>Remove travel lane (or parking lane) to provide two-way protected bike lane that connects Grant 15L station to (future) 21st Street “urban trail”. Also would connect to (future) Broadway and 14th Avenue cycle tracks.</i>	PW DDP CBID	<i>Meet with PW and DDP to present idea. Coordinate ongoing efforts for the urban trail / “Mile High Loop” project. Argument for lane reduction is due to Logan only having two travel lanes whereas Grant has three.</i>
M.5 - DOWNING STREET PROTECTED BIKE LANE	<i>Implement a two-way protected bike lane for one block from Colfax to 16th Ave. on west side of Downing. Refer to Colfax Multimodal Access Study (page 34.)</i>	PW CBID RTD	<i>Meet with PW to move forward concept and design/engineering.</i>
M.6 - COLFAX AVE PROTECTED BIKE LANES (JOSEPHINE TO ELIZABETH)	<i>Implement a one-way parking protected bike lane on both sides of Colfax from Josephine to Elizabeth to connect riders to/from BRT station and neighborhoods to the east.</i>	PW CBID RTD	<i>Meet with PW to present idea.</i>
ONGOING - As Resources Become Available or Properties Redevelop			
M.7 - COLFAX DEVOLUTION	<i>Transfer ownership of Colfax Avenue from state (CDOT) to city ownership.</i>	PW CDOT BID	<i>Organize all Colfax BIDs to petition City Councilmembers. Meet consistently with DPW and CDOT. Consider CDOT compensation to fund improvements. Consider I-70 Business Route designation.</i>
M.8 - LAFAYETTE, GAYLORD, COLUMBINE, AND ELIZABETH BIKE LANES/ROUTES	<i>Implement bike facilities on Lafayette and Gaylord between 12th and 16th. Where ROW is wide enough and would not remove healthy, mature trees, consider bike lanes.</i>	PW	<i>Meet with PW to present concept. Coordinate with PW future bike facility implementation projects</i>

PW = Public Works Department
 BID = Colfax Ave Business Improvement District
 CDOT = Colorado Department of Transportation

DDP = Downtown Denver Partnership
 RTD = Regional Transportation District
 CPD = Community Planning and Development

PR = Parks and Recreation Department
 CC = City Council
 HD = Historic Denver