Project Goal	Performance Metrics	Bancroft 1	Notes	Bancroft 2	Notes	Bancroft 3	
	Pedestrian comfort, safety, and convenience	Fair	rebuilds cross streets/shorten crossings on Bancroft where possible	Fair		Poor	
	Bicycle comfort, safety, convenience	Good	signalization at cross streets necessary? E.G. Ellsworth example, driveways	Good		Fair	
1 - Vision Zero	Pedestrian/Bicyclist Conflict Points with Vehicles (intersection crossings, driveways, etc.)	Fair	22 driveways on the southside of Bancroft; need Kittelson input on signalization at intersections?	Good	12 driveways on the northside of Bancroft; need Kittelson input on signalization at intersections?	Poor	22 Ba co Da dis wi wi
2 - Transit Performance	Change in Bus Travel Time	Good	Approximately 10-15% travel time savings for curbside lanes given moderate congestion per Synchro analysis. Weighted average of benefit to account for portion with existing bus lane	Good	Approximately 10-15% travel time savings for curbside lanes given moderate congestion per Synchro analysis. Weighted average of benefit to account for portion with existing bus lane	Poor	Re inc lar m
	Expanded boarding areas, additional transit shelters, and platform level boarding	Poor		Good	only option where we are potentially affecting	Poor	
	Enhances business and amenity access for the most common travel modes identified by the intercept survey (walking & transit) and provides new access for bicyclists (including space for bike racks)	Good		Fair	bikes away from businesses	Poor	no nc
3 - Economic Development	Provides dynamic space to best serve adjacent businesses (loading zones to accommodate commercial delivery, food delivery, and/or rideshare)	Good		Good		Poor	
	Provides space to ease operational considerations along the corridor (trash, recycling, compost collection)	Good	bikeway presents opportunity that doesn't exist today	Fair	same as today	Good	bil dc
	Provides area for placemaking & opportunity for roadway flexibility (festival streets, streetery space)	Good	potential for GSI or amenities in buffer and crossing islands	Fair	bump out opportunities crossings could be included and GSI/amenities potential	Good	

## Appendix D: Options Analysis Matrix Results - Bancroft Way

Notes
2 driveways on the southside of ancroft; two-way vehicle travel equires additional lanes and / or onflicts with the bikeway (i.e. at ana where an entire lane shift or sallow turn on to Dana or be fine ith permissive turn across bikeway hich increases conflicts.)
emoval of existing bus lane plus creased auto congestion from WB ne reduction. Approximately 2.6 inute increase in travel time.
o bus lane and parking / loading on orth side (not by businesses)
keway presents opportunity that pesn't exist today

Project Goal	Performance Metrics	Bancroft 1	Notes	Bancroft 2	Notes	Bancroft 3	Notes
Baseline Performance Information	Traffic Analysis: Volume-to-capacity ratio (V/C), vehicular queue length, and level of service (LOS)	Fair	V/C increase by <5%; no movements over capacity; no upstream queuing impacts identified; delay increases at four intersections: Telegraph (LOS B to D), pedestrian crossing (LOS A to C), Ellsworth (LOS B to D), and Shattuck (LOS A to D)	Fair	V/C increases by 6%; no movements over capacity; no upstream queuing impacts identified; delay increases at five intersections: Telegraph (LOS B to C), pedestrian crossing (LOS A to B), Ellsworth (LOS B to D), Fulton (LOS A to B), and Shattuck (LOS A to C)	Poor	V/C increases by 11%; Bancroft Way & Shattuck Avenue approaching capacity; westbound through at Dana exceeding capacity; westbound through at Fulton exceeding capacity; westbound through at Shattuck approaching capacity; delay increases at five intersections: Telegraph (LOS B to C), Dana (LOS A to D), Ellsworth (LOS B to D), Fulton (LOS A to C), and Shattuck (LOS A to B)
	Person Throughput	rson Throughput Model and South and		Good	Throughput increases by 59%; increase due to bus and bike improvements; slight decrease in auto throughput	Poor	Throughput increases by 29%; increase due to bike movements; sight decrease in auto throughput
	Parking inventory Fair		10-20% reduction in parking on north side; 30-40% reduction in parking on south side. Reduction of parking on the south for sight lines at driveways and intersections. Note that there is about 70% more existing parking on the south side than on the north side.	Good	Removal of all parking on north side; 10- 15% increase in parking on south side due to moving existing separated bike lane to north side. Note that there is about 70% more existing parking on the south side than on the north side.	Poor	30-40% increase in parking on north side; removal of all parking on south side; increase in parking on north side due to removal of bus-only lane. Note that there is about 70% more existing parking on the south side than on the north side.
	Universal Design	Good	Parking protected bicycle lane buffer creates additional space adjacent to all parking stalls, not just blue zones; buffer also creates opportunities for raised crossings		No changes to the parking on the south curb; protected bicycle lane buffer creates limited opportunities for raised crossings; floating bus stops could present opportunities for better boarding/alighting	Poor	Parking remains on the north curb, away from the bicycle lane; compared to others, there are limited opportunities for raised crossings
	Concept Impacts & Costs	Good	flex posts/striping	Poor	sproul plaza and concrete buffer	Poor	signal changes
	Fire marshal requirements	Fair	Restrict parking in these locations. 2680 (33' set back to curb), driveway right there? 2362 (20' set back to curb) also have parking lot entry	arking in these locations. 2680 ack to curb), driveway right there? set back to curb) also have of entry Buildings ID'ed - no considerable iss not decreasing access, concrete build designed to be mountable (Milvia example)		Fair	Coordination still necessary, but no floating parking with this option
	Street Maintenance	Fair	Flex posts may require more maintenance along floating parking	Good	Concrete bicycle lane buffer may result on easier maintenance	Good	Concrete bicycle lane buffer may result on easier maintenance

Project Goal	Performance Metrics	Telegraph 1	Notes	Telegraph 2	Notes	Telegraph 3	Notes	Telegraph 4	Notes
1 - Vision Zero	Pedestrian comfort, safety, and convenience	Poor	not much change and potentially more stressful with sidewalk level bikeway on west side	Fair	opportunity for shortening crossings and adding some additional sidewalk width mid- block	Fair	similar to Opt. 2	Good	
	Bicycle comfort, safety, convenience	Fair	vertical separation on westside provides the most significant separation of all concepts for one direction of bike travel	Poor		Poor		Poor	
	Pedestrian/Bicyclist Conflict Points with Vehicles (intersection crossings, driveways, etc.)	Poor	This introduces some additional conflicts at intersections due to the new contraflow bicycle lane	Poor	This introduces the most additional conflict points at intersections due to the new two-way traffic pattern	Good	This introduces the least amount of conflict points	Good	This is similar to Option 3 in terms of conflict points
2 - Transit Performance	Change in Bus Travel Time (Kittelson)	Fair	Decreases travel time by 5-8%	Poor	Increased auto congestion from NB lane reduction. Increases travel time by approximately 90 seconds.	Fair	Decreases travel time by 5-8%	Fair	Decreases travel time by 5-8%
	Expanded boarding areas, additional transit shelters, and platform level boarding	Fair	curbs adjacent to bus priority lane could be changed to accommodate platform level boarding (grading may be a challenge tho!)	Fair		Good		Fair	
	Enhances business and amenity access for the most common travel modes identified by the intercept survey (walking & transit) and provides new access for bicyclists (including space for bike racks)	Fair	improves bike connectivity and bus connectivity; small crossing improvements at intersections for peds possible	Poor	some modest crossing improvements for peds possible	Fair	improves bus connectivity and some opportunity for pedestrian crossing improvements	Good	improves bus connectivity and greatly improves pedestrian crossings
3 - Economic Development	Provides dynamic space to best serve adjacent businesses (loading zones to accommodate commercial delivery, food delivery, and/or rideshare)	Poor	no change to existing	Poor	two-way operation likely means more difficult loading	Fair	seems like it won't be a lot better than existing	Fair	seems like it won't be a lot better than existing
	Provides space to ease operational considerations along the corridor (trash, recycling, compost collection)	Poor	curbside refuse pick up may be burdened by addition of sidewalk level bikeway on west side (and receptacles may end up in bikeway)	Good		Good		Good	

Project Goal	Performance Metrics	Telegraph 1	Notes	Telegraph 2	Notes	Telegraph 3	Notes	Telegraph 4	Notes
	Provides area for placemaking & opportunity for roadway flexibility (festival streets, streetery space)	Poor	provides opportunities to fill in some curbside parking/loading areas and repurpose for placemaking / improved sidewalks. Not a "flexible" concept tho.	Fair	all concepts with curbs are "fixed" and not flexible. If scored relative to each other 2 and 3 are more flexible than 1, less flexible than 4	Fair	all concepts with curbs are "fixed" and not flexible. If scored relative to each other 2 and 3 are more flexible than 1, less flexible than 4	Good	most flexible of all concepts if flush
Baseline Performance Information	Traffic Analysis: Volume-to-capacity ratio (V/C), vehicular queue length, and level of service (LOS) Note: Options 1, 3 and 4 are identical from the perspective of this analysis	Fair	V/C increases by <5%; Telegraph/Dwight approaching capacity, northbound Telegraph approaching capacity at Bancroft; delay decreases at Dwight (LOS E to D) and increases at Haste (LOS A to B) and Bancroft (LOS B to C)	Poor	V/C increases by <5%; Telegraph/Dwight approaching capacity, northbound left at Bancroft approaching capacity, northbound through at Dwight exceeding capacity; delay decreases at Durant (LOS B to A) and increases at Haste (LOS A to B) and Bancroft (LOS B to C)	Fair	V/C increases by <5%; Telegraph/Dwight approaching capacity, northbound Telegraph approaching capacity at Bancroft; delay decreases at Dwight (LOS E to D) and increases at Haste (LOS A to B) and Bancroft (LOS B to C)	Fair	V/C increases by <5%; Telegraph/Dwight approaching capacity, northbound Telegraph approaching capacity at Bancroft; delay decreases at Dwight (LOS E to D) and increases at Haste (LOS A to B) and Bancroft (LOS B to C)
	Person Throughput (Kittelson) Note: Options 1, 3 and 4 are identical from the perspective of this analysis	Good	Throughput increases by 34%; increase due to bus improvements; slight decrease in auto throughput	Poor	Throughput remains approximately the same.	Good	Throughput increases by 34%; increase due to bus improvements; slight decrease in auto throughput	Good	Throughput increases by 34%; increase due to bus improvements; slight decrease in auto throughput
	Parking inventory	Poor	Concept eliminates all parking on west side.	Fair	Can fill in some bays; some parking will be removed on both sides.	Fair	Can fill in some bays; some parking will be removed on both sides.	Good	Has potential to maintain the most parking (on both sides).
	Universal Design	Poor	This introduces limited opportunities for raised crossings, loading zone improvements, etc.	Fair	This creates some opportunities for better crossing improvements and loading zones	Fair	This creates some opportunities for better crossing improvements and loading zones	Good	The raised bus platform needed may present drawbacks from a universal design perspective with this option; otherwise, this affords the greatest flexibility of the roadway during closures
	Concept Impacts & Costs	Fair		Fair		Fair		Poor	
	Fire marshal requirements	Fair		Fair		Fair		Fair	
	Street Maintenance	Fair	sidewalk level bikeway cleaned in same manner as sidewalk	Fair		Fair		Good	

Project Goal	Performance Metrics	Fulton 1	Notes	Fulton 2	Notes	Fulton 3	
	Pedestrian comfort, safety, and convenience	Fair	Modest stress reduction by moving cars further from peds on east; some opportunities to shorten crossing distances	Fair	Modest stress reduction by moving cars further from peds on east; some opportunities to shorten crossing distances	Fair	N ci o d
1 - Vision Zero	Bicycle comfort, safety, convenience	Good		Good		Fair	
	Pedestrian/Bicyclist Conflict Points with Vehicles (intersection crossings, driveways, etc.)	Fair	10 driveways on the eastside; signal phase separation feasible at Durant and Dwight	Good	7 driveways on the westside; signal phase separation feasible at Haste	Poor	1 d se a w
2 - Transit	Change in Bus Travel Time (Kittelson)	n/a		n/a		n/a	
Performance	Expanded boarding areas, additional transit shelters, and platform level boarding	n/a		n/a		n/a	
	Enhances business and amenity access for the most common travel modes identified by the intercept survey (walking & transit) and provides new access for bicyclists (including space for bike racks)	Fair	better bicycle connectivity and some modest improvements for pedestrian crossings	Fair	better bicycle connectivity and some modest improvements for pedestrian crossings	Fair	b m cı
3 - Economic Development	Provides dynamic space to best serve adjacent businesses (loading zones to accommodate commercial delivery, food delivery, and/or rideshare)	Fair	dynamic space probably serves residences primarily as there aren't many businesses	Fair		Fair	
	Provides space to ease operational considerations along the corridor (trash, recycling, compost collection)	Fair	bikeway buffers provide some additional space for operations	Fair		Fair	
	Provides area for placemaking & opportunity for roadway flexibility (festival streets, streetery space)	Poor	concrete bikeway buffer provides some opportunities	Poor	block ends might provide some opportunity for planting	Poor	b o

## Notes

Modest stress reduction by moving cars further from peds on east; some opportunities to shorten crossing distances

10 driveways on the eastside, 7 driveways on the west; signal phase separation feasible at Durant, Haste, and Dwight. More conflicts introduced with contraflow bike lane.

better bicycle connectivity and some modest improvements for pedestrian crossings

block ends might provide some

Project Goal	Performance Metrics	Fulton 1	Notes	Fulton 2	Notes	Fulton 3	Notes
	Traffic Analysis: Volume-to-capacity ratio (V/C), vehicular queue length, and level of service (LOS)	Poor	V/C increases by 6%; southbound through at Channing over capacity, southbound left at Durant approaching capacity, southbound through at Haste approaching capacity; 95% southbound left queues at Durant exceed block length, 95% southbound through queues at Channing exceed block length (also true today), 95% southbound through queues at Haste exceed block length; delay increases at three intersections: Durant (LOS B to C), Haste (LOS B to C), and Dwight (LOS A to B)	Fair	V/C increases by 4%; southbound through at Channing over capacity, southbound left at Durant approaching capacity; 95% southbound through and left queues at Durant exceed block length, 95% southbound through queues at Channing exceed block length (also true today); LOS increases at two intersections: Durant (LOS B to D) and Dwight (LOS A to B)	Poor	V/C increases by 8%; southbound through at Channing over capacity, southbound left at Durant approaching capacity; 95% southbound left and through queues at Durant exceed block length, 95% southbound through queues at Channing exceed block length (also true today); LOS increases at two intersections: Durant (LOS B to D) and Dwight (LOS A to B)
	Person Throughput (Kittelson)	Throughput (Kittelson) Good Throughput increases by 32%; increase due to bike improvements Go		Good	d Throughput increases by 32%; increase due to bike improvements		Throughput increases by 32%; increase due to bike improvements
Baseline Performance Information	Parking inventory Good Remova there is to the r		Removal of all parking on east side; 5-10% reduction in parking on west side. Note that there is less existing parking on the east due to the number of driveways.	Poor	70-80% reduction in parking on east side; 60-70% reduction in parking on west side. Two-way bikeway pushes floating parking on the west further from the curb, requiring more removal for sight lines; all parking removed on the east side except Bancroft to Durant.	Fair	70-80% reduction in parking on east side; 50-60% reduction in parking on west side. Floating parking with one- way bikeway on the west requires some loss of parking for sight lines; all parking removed on the east side except Bancroft to Durant.
	Universal Design	Fair	This creates opportunities for raised crossings	Good	This creates opportunities for raised crossings and additional loading space alongside all parking	Poor	This creates less opportunities for raised crossings and less loading space
	Concept Impacts & Costs	Fair	curbed buffer is a little expensive; signal improvements expected	Good	paint and post buffer is cheaper, but still expecting some costs for signal upgrades for two-way bikeway	Poor	sidewalk level contraflow bike lane probably creates the most cost
	Fire marshal requirements	Fair	Likely the preferred option from the FD since it doesn't have floating parking	Fair		Fair	
	Street Maintenance	Good	curbed buffer is lower maintenance	Fair	paint and post buffer has higher maintenance costs compared to concrete	Poor	narrower paint and post buffer could be more difficult to maintain

## Appendix D: Options Analysis Matrix Results - Fulton Street