

Appendix E Initial Alternatives Summary
Comments from Days 1 and 2

Gambell Street Redevelopment and Implementation Plan

Public Input from Days 1 and 2 of the Public Charette (May 21-22, 2013)

Corridor Options

C0:

1. It's already a 3-lane road in winter.

C1:

No comments.

C2:

1. Not sure that this would make a difference as left-hand turns don't involve crossing any on-coming traffic.
2. Only beneficial under 3-lane scenario – no real benefit under current 4-lane cross-section.
3. Depends on transition to 3-lane.

C3:

No comments.

C4:

No comments.

C5:

1. Limiting cross travel to signalized intersection would be great to improve traffic flow along Gambell, but is bad for those trying to cross. Crossing 15th Avenue in the morning it can take almost five minutes for the light to change which is very annoying. I am pro for blocking 11th and 12th street which could potentially reduce some of the crossing problems on Hyder, or it could make them worse by providing sheltered areas at the barriers for people to hang out like drunks, drug dealer, etc. Additional option would be to use Hyder for one-way North-South traffic and reduce the capacity on Gambell by reducing lanes.
2. Need bike path to go through for walkers too.
3. This is a tough issue: pedestrian safety calls for dead ends, but business access is against it.

C6:

1. Riders near sports area need a bench. Need countdown signals.

C7:

1. Needs to be incorporated with street snow removal. Flat snow storage area.

C8A:

1. Bulbed-out pedestrian crossing with parking on slow lane, and 3-lane facility.

C8B:

No comments.

C8CI:

No comments.

C8CII:

1. Not enough pedestrian use.

C8CIII:

No comments.

C8D:

1. Would anybody even use these? Surely a waste of money.
2. May have value in the area of the sports arena, but anywhere else on Gambell is a really bad idea.
3. People don't use over passes.
4. Overhead pedestrian walk-ways and three lanes for through traffic; fourth lane for turn lane.

Other comments:

1. Hyder Street converted to one-way South in order to accommodate regional traffic allowing through on Gambell Street to be downsized.
2. Proper pedestrian walk-way, with visible zebra crossing and a countdown signal.

Cross-Section Options

Existing:

1. Obtain row to increase all lanes to 12 feet.
2. Should be 3 travel lanes and turn lane where needed.
3. Sidewalks way too narrow. This is a very negative pedestrian experience.
4. Please add utility behind sidewalk to left.

S1A:

1. Reduces traffic volume capacity – commercial vehicle conflicts with cyclists – landscaping increase cost and reduces visibility.
2. Remove bike lane and add snow storage.
3. This is nice, I like the bike lane.
4. I think we need to habituate drivers to bikers so we should just always add bike lanes.

S1B:

1. Reduces traffic volume capacity – commercial vehicle conflicts with cyclists – landscaping increase cost and reduces visibility.
2. Remove bike lane and trade for snow storage.
3. Could there be a curb of some kind instead of just stripes to keep the bikes safe from the cars?
4. Without the trees.
5. Looks good.
6. I think we need to habituate drivers to bikers so we should just always add bike lanes.
7. Like snow storage in bike lanes.

S1D:

1. No bike lanes!
2. Snow storage won't be used as such especially in winter.

S1E:

1. No bike lanes!
2. Looks good.
3. Unclear on snow storage.

S1F:

1. Snow storage is a problem.
2. It would be better if the landscaping served as a buffer.

S1G:

1. Not enough throughputs for the structure. With trucks on Hyder, how would pedestrians cross? Not enough money to study this approach here.

S1J:

1. Sidewalks are quite narrow, but I like the multi-use concept.

Gateway Options

AG1:

No comments.

AG2:

No comments.

AG3:

No comments.

AG4:

1. Just with no pillars.

AG5:

No comments.

AG6:

No comments.

Other comments:

1. Cost/maintenance.
2. Should include both trees, plants, greenery – that would be good in summer, and also something that would still be there and be good in winter.
3. I like the mere artistic options but that's mere personal taste.
4. I like gateways that double as something else – pedestrian refuge, bridges, good public art.

Illuminations Options

AI1:

1. Need this.

AI2:

2. Use on long open stretches.

AI3:

No comments.

AI4:

No comments.

AI5:

No comments.

Other comments:

1. Consider using new LED technology for lighting – higher up front cost, but long term savings for energy and maintenance.
2. LED!
3. Goal would be to have consistency and not multiple lighting types. For instance, I don't like Spenard's old town lights and they still have big overhead lights. Also, would be nice to match with other Fairview improvements, one or the other.

Banner Options

AB1:

No comments.

AB2:

No comments.

AB3:

No comments.

Other comments:

1. Banner with FV anchor.
2. Banners are a good way to attract driver's attention, but are not really pedestrian scale (usually). If there is a wide sidewalk, flower baskets would be great.
3. I don't like banners – too much clutter.

Landscaping Options

AL1:

1. A variety of plants is good, but rocks and gravel are not as good.

AL2:

1. These could be very nice, but they will need maintenance. I fear these features would become trash depositories or places for homeless people/panhandlers to stash their stuff. Also, people may sit on these.
2. Needs to be easy for snow removal.

AL3:

1. These could be very nice, but they will need maintenance. I fear these features would become trash depositories or places for homeless people/panhandlers to stash their stuff. Also, people may sit on these.
2. Needs to be easy for snow removal.

AL4:

No comments.

AL5:

No comments.

AL6:

No comments.

Other comments:

1. Perennials that die back to the ground and return in spring could save cost for replanting and space could be used for "snow dump" in winter.
2. Must be at back of sidewalk for snow removal.
3. Put landscaping in shared ROW.
4. Watch out for landscaping trouble with snow and salt.
5. I think landscaping in Anchorage only works in smaller planters. Dead trees are no more attractive then no landscaping.

Pavement Options

AP1:

No comments.

AP2:

No comments.

AP3:

1. Very nice and affordable alternative.

AP4:

No comments.

AP5:

No comments.

AP6:

1. Seems to wear over time.

Other comments:

1. Consider pervious pavers. Make sure texture and material does not create tripping hazards.

Appendix F Most Promising Alternatives
Worksheet from Day 3

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes			
C1	Signal progression at 35 miles per hour			
C2	Turn lanes at 9th, 13th, and 15th			
C3	Gambell Street Underpass at 15th Avenue			
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex			
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues			
C6	Shared right of way with businesses			
C7	Snow removal strategies for roadway and sidewalks			
C8A	Enhanced pedestrian crossings			
C8B	Mid-block pedestrian crossings			
C8CI	Pedestrian signals/flashers			
C8CII	Pedestrian-only phase (scramble)			
C8CIII	Pedestrian countdown signals			
C8D	Pedestrian overpass			
C9	Add on-street parking			
C10	Establish Hyder as a primary SB route			

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review

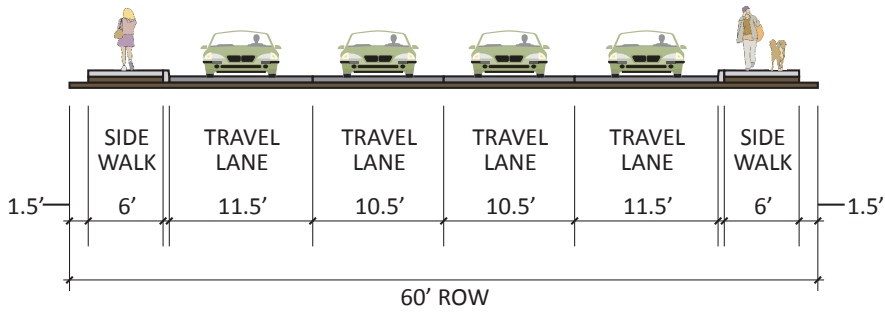


Alternatives NOT Recommended for Further Review



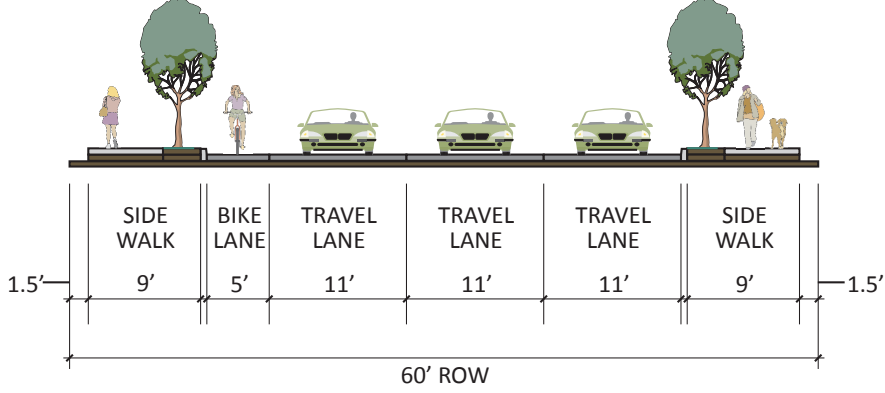
Cross-Section Options

Existing Gambell Street Cross-Section



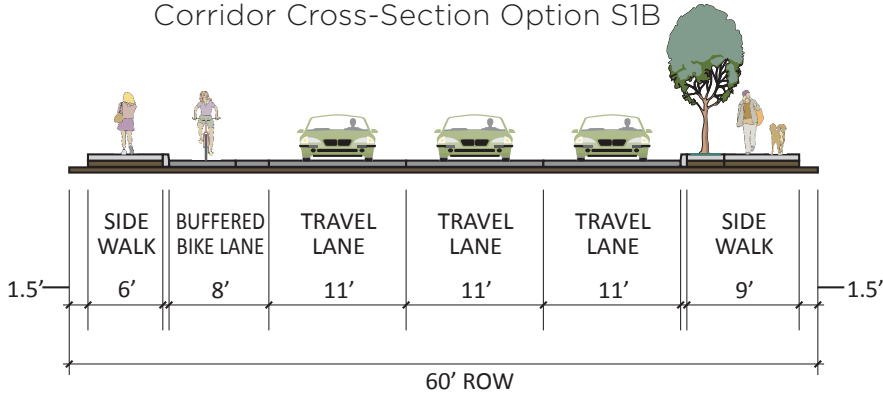
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1A



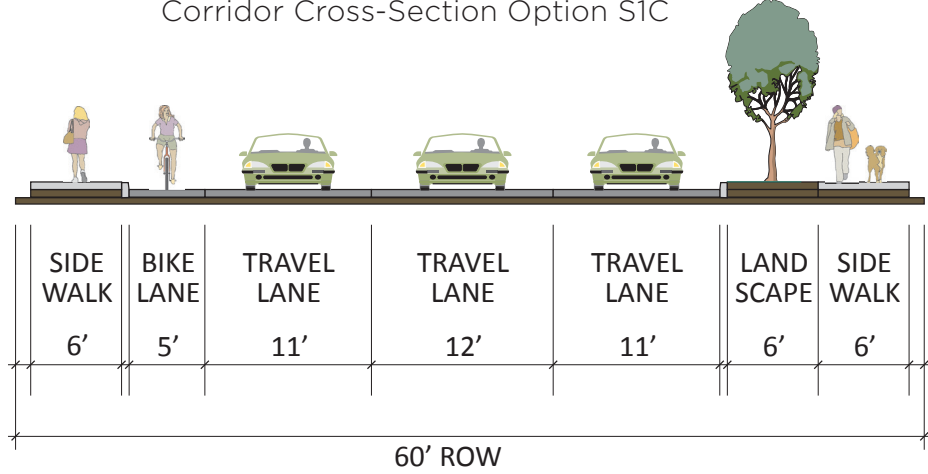
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1B



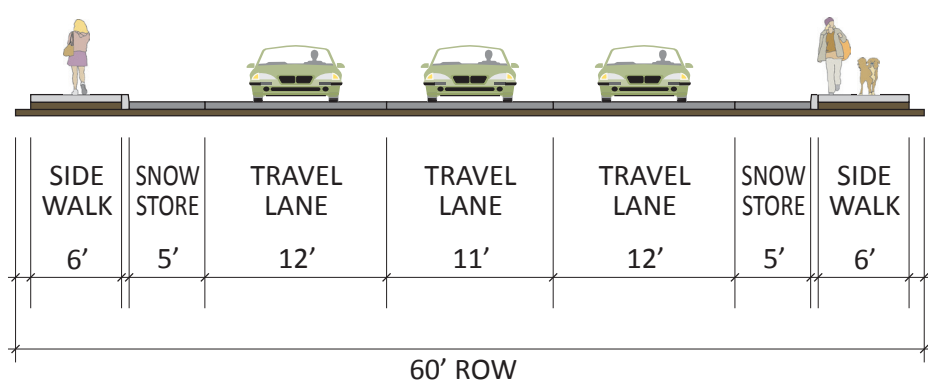
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1C



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1D



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

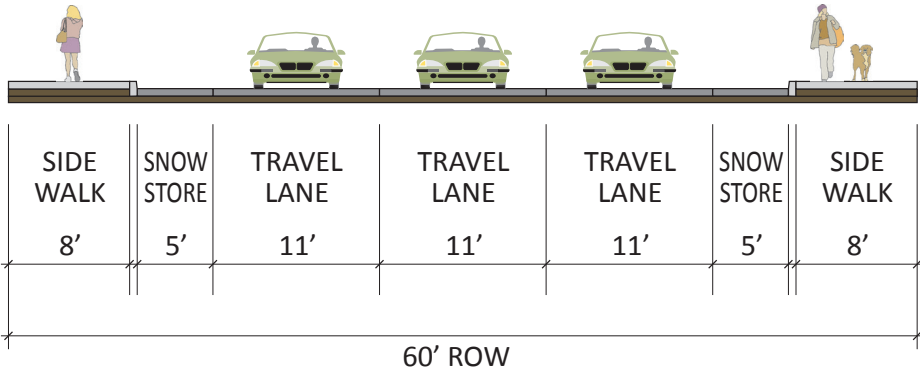
■ Alternatives Recommended for Further Review

■ Alternatives Under Consideration for Further Review

■ Alternatives NOT Recommended for Further Review

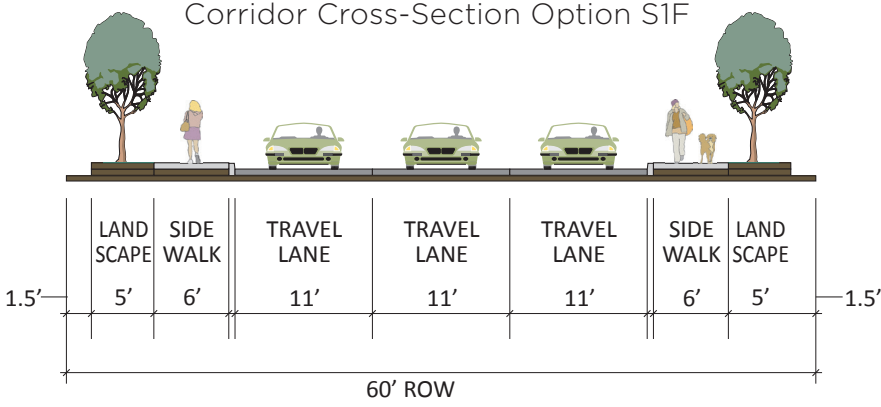
Cross-Section Options

Corridor Cross-Section Option S1E



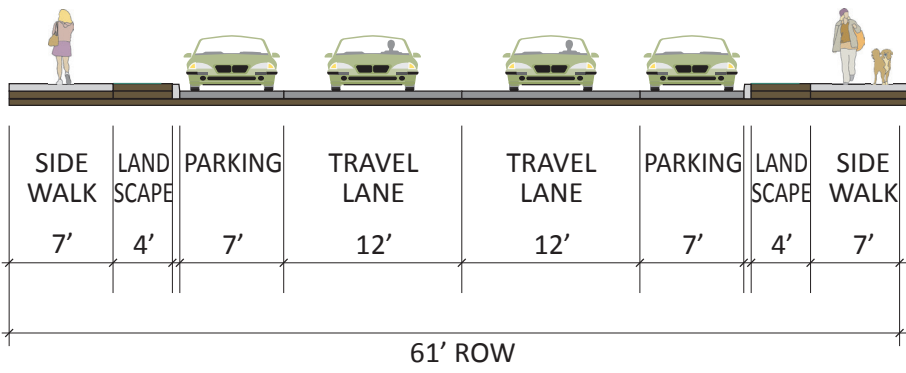
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1F



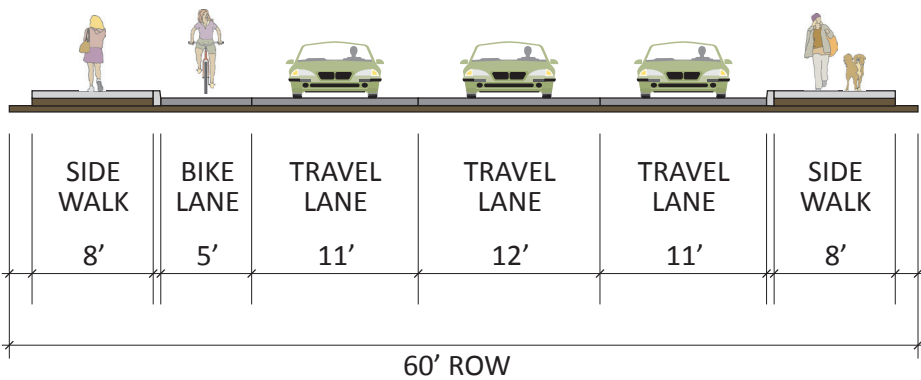
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1H

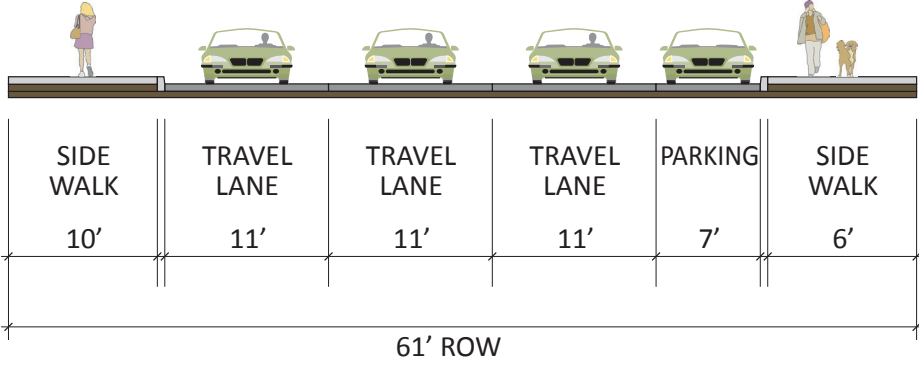


Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

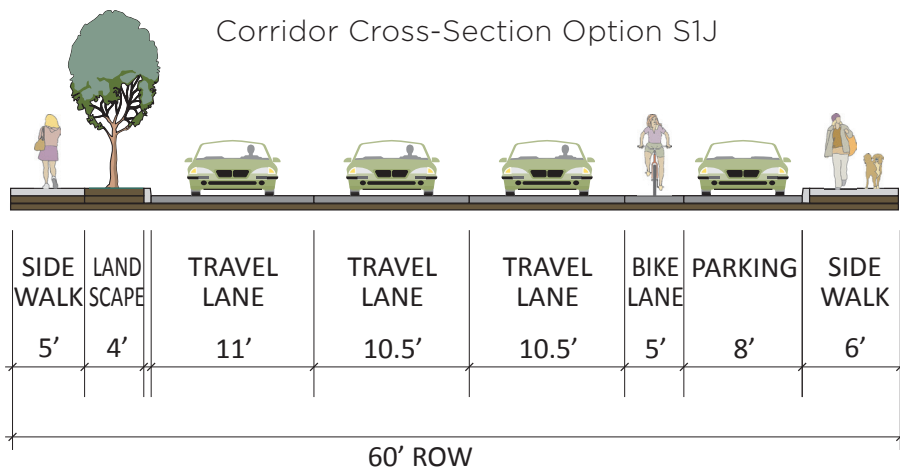
Cross-Section Options

Corridor Cross-Section Option S1I



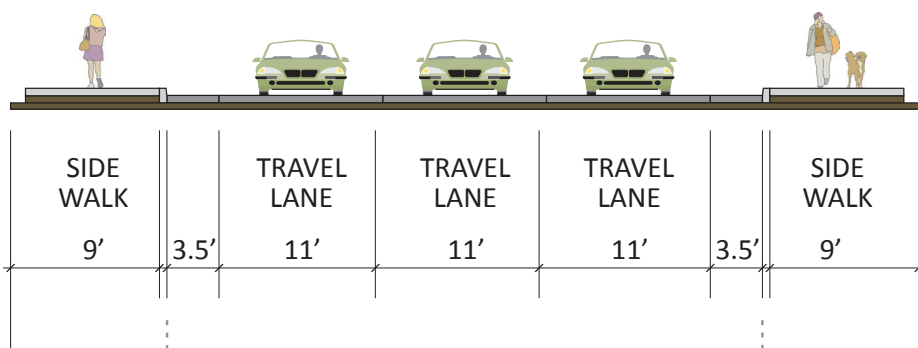
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1J



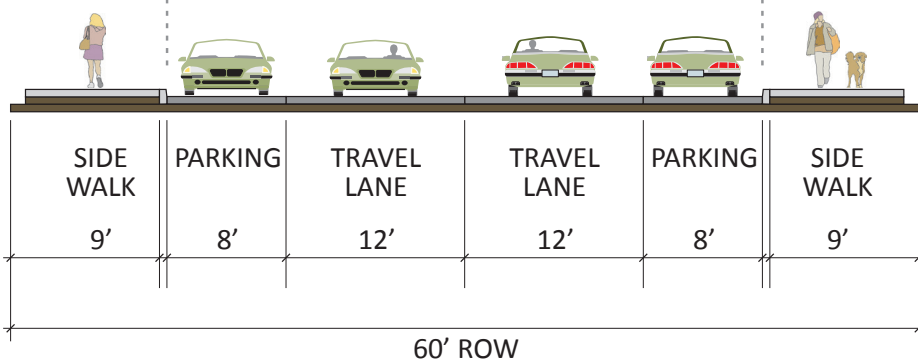
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1K (Short Term)



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1K (Long Term)



- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AG1		Low-key corner gateway.	Agree	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree	Disagree	If disagree, how would you change
AG3		Modern artsy gateway.	Agree	Disagree	If disagree, how would you change
AG4		Grand overhead gateway.	Agree	Disagree	If disagree, how would you change
AG5		Subtle, artistic gateway.	Agree	Disagree	If disagree, how would you change
AG6		Artistic and unique gateway.	Agree	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review









Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review




Illumination Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
A11		Keep existing light standards where possible and add lower pedestrian lights.	Agree	Disagree	If disagree, how would you change
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	If disagree, how would you change
A13		Traditional cobra head luminaire.	Agree	Disagree	If disagree, how would you change
A14		Blend of modern and traditional street-scale light.	Agree	Disagree	If disagree, how would you change
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	If disagree, how would you change
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	If disagree, how would you change




Comments

 Alternatives Recommended for Further Review

 Alternatives Under Consideration for Further Review

 Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		<p>Banners that advertise nearby businesses with a style consistent with Gambell Street.</p>	Agree	Disagree	If disagree, how would you change
AB2		<p>Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.</p>	Agree	Disagree	If disagree, how would you change
AB3		<p>Seasonal banners or banners promoting events.</p>	Agree	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Landscaping Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	If disagree, how would you change
AL2		Raised planters, perhaps portable.	Agree	Disagree	If disagree, how would you change
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	If disagree, how would you change
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	If disagree, how would you change
AL6		Tree grates integrated into sidewalk paving patterns.	Agree	Disagree	If disagree, how would you change
AL7		Plant perennials and use for snow storage	Agree	Disagree	If disagree, how would you change
AL8		Hardscape with small trees and retaining wall in Anchorage.	Agree	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review

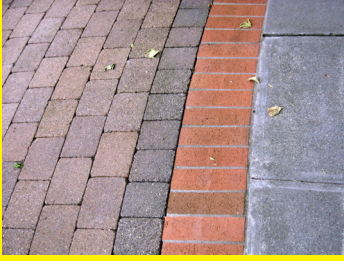


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AP1		Use of different paving materials—labor intensive and expensive.	Agree	Disagree	If disagree, how would you change
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	Agree	Disagree	If disagree, how would you change
AP3		Modular concrete pavers come in different shapes and colors.	Agree	Disagree	If disagree, how would you change
AP4		A way to break up expanses of sidewalk.	Agree	Disagree	If disagree, how would you change
AP5		Integrate paving with planting.	Agree	Disagree	If disagree, how would you change
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	Agree	Disagree	If disagree, how would you change
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	Agree	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Appendix G Copies of Completed Most
Promising Alternatives
Worksheets from Day 3

Corridor Options

Please provide your thoughts on this option for Gambell Street

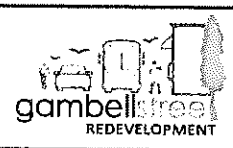
Option	Description	Agree	Disagree	
C0	Reducing the number of travel lanes from 4 to 3 lanes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>Agree reluctantly only if it enhances pedestrian sidewalks</i>
C1	Signal progression at 35 miles per hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If disagree, how would you change <i>Convenient pedestrian crossing at every corner</i>
C2	Turn lanes at 9th, 13th, and 15th	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C3	Gambell Street Underpass at 15th Avenue	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If disagree, how would you change <i>I've found cities with regular crossings work best overall.</i>
C6	Shared right of way with businesses	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C7	Snow removal strategies for roadway and sidewalks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>Agree strongly for sidewalks. Don't find roadway a problem.</i>
C8A	Enhanced pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>Should be at every block</i>
C8B	Mid-block pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>On stretch from 15th to Firwood at least 2 are needed</i>
C8C I	Pedestrian signals/flashers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>at each intersection</i>
C8C II	Pedestrian-only phase (scramble)	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8C III	Pedestrian countdown signals	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8D	Pedestrian overpass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>16 parking structure put in - maybe farther on that 15 - Firwood stretch</i>
C9	Add on-street parking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If disagree, how would you change <i>Busy road - too much traffic. If space is taken should be for pedestrian</i>
C10	Establish Hyder as a primary SB route	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change

Part of count how controls from design

How does this allow for pedestrian

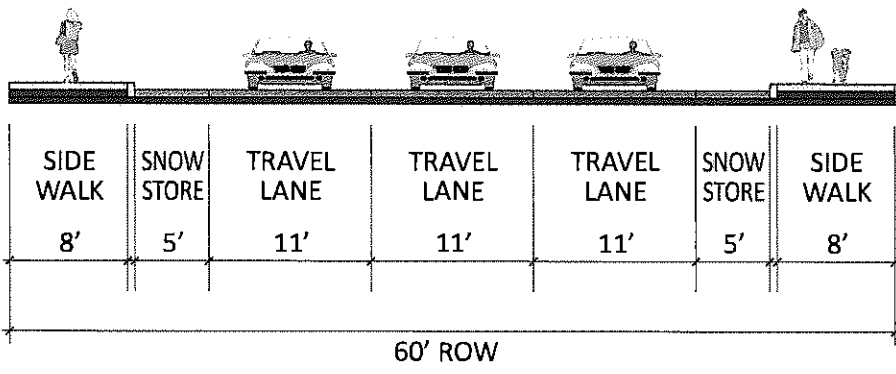
Comments

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review



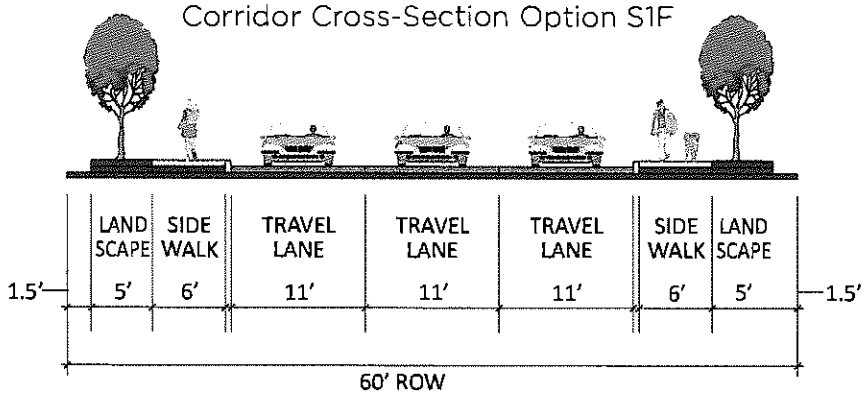
Cross-Section Options

Corridor Cross-Section Option S1E



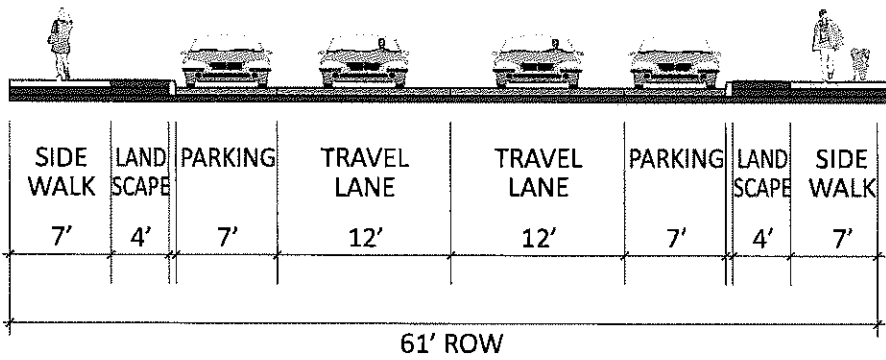
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1F



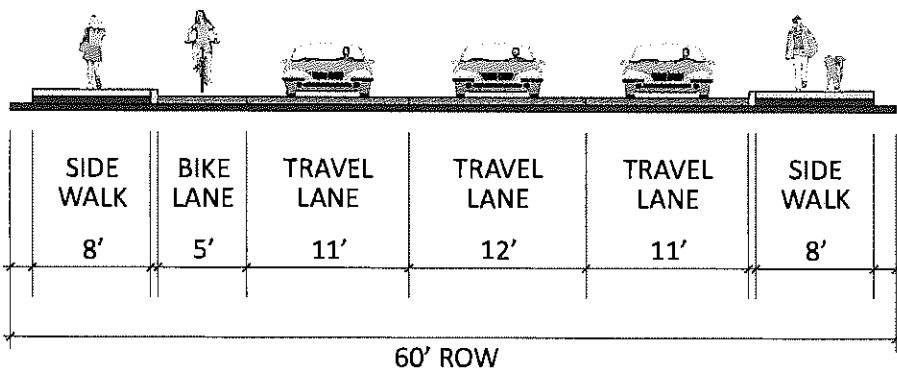
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1H



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AG1		Low-key corner gateway.			
AG2		Downtown, large-scale gateway.			
AG3		Modern artsy gateway.			
AG4		Grand overhead gateway.		X	
AG5		Subtle, artistic gateway.			
AG6		Artistic and unique gateway.			
AG7		Two pillars gateway.			

Comments

Don't see reason for "gateway" where would it be? why would it be? Gateways into smaller neighborhoods are quite nice but does not seem appropriate for a "corridor"



Alternatives Recommended for Further Review






Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AB1		Banners that advertise nearby businesses with a style consistent with Gambell Street.	X		
AB2		Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.			<p><i>Sounds/ looks rather cluttered consistent pattern better</i></p>
AB3		Seasonal banners or banners promoting events.	X		

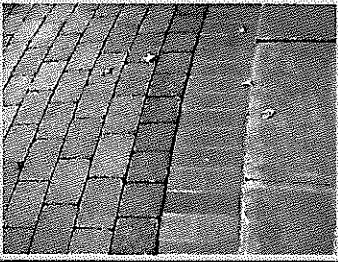




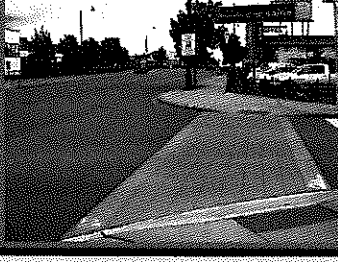
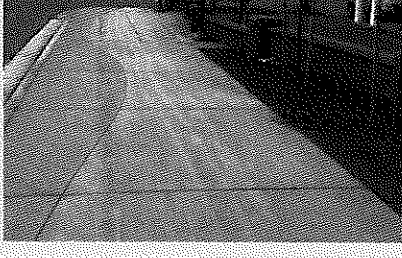
Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AP1		Use of different paving materials—labor intensive and expensive.	Agree	Disagree X	If disagree, how would you change <i>more difficult Ice snow removal and gravel removal in spring</i>
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	Agree X	Disagree	If disagree, how would you change <i>It works with planting + if pavement steps wide enough</i>
AP3		Modular concrete pavers come in different shapes and colors	Agree	Disagree X	If disagree, how would you change
AP4		A way to break up expanses of sidewalk.	Agree	Disagree X	If disagree, how would you change <i>See AP1 comments</i>
AP5		Integrate paving with planting.	Agree	Disagree	If disagree, how would you change
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	Agree X	Disagree	If disagree, how would you change <i>BUT half the year it won't show lights <u>much</u> more useful</i>
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	Agree X	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	X		
C1	Signal progression at 35 miles per hour	X		
C2	Turn lanes at 9th, 13th, and 15th	X		
C3	Gambell Street Underpass at 15th Avenue	X		\$
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	X		
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	X	X	mandatory for these streets RED
C6	Shared right of way with businesses	X		
C7	Snow removal strategies for roadway and sidewalks	X		
C8A	Enhanced pedestrian crossings	X		
C8B	Mid-block pedestrian crossings	X		
C8CI	Pedestrian signals/flashers	X		
C8CII	Pedestrian-only phase (scramble)	X		
C8CIII	Pedestrian countdown signals	X		
C8D	Pedestrian overpass	X	X	keep for discussion RED
C9	Add on-street parking	X		
C10	Establish Hyder as a primary SB route	X		

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review

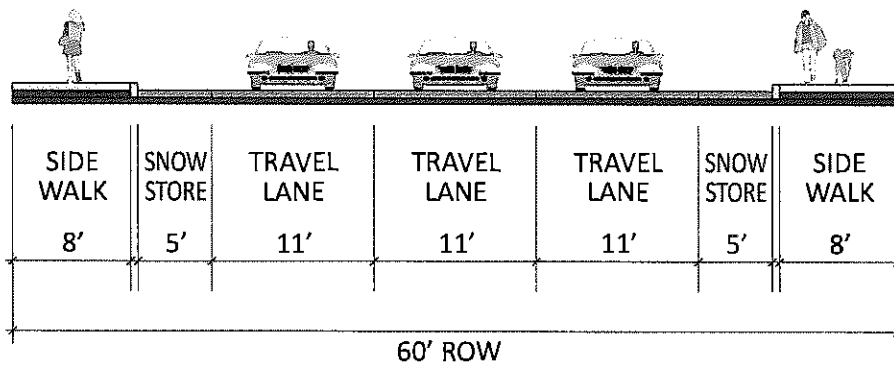


Alternatives NOT Recommended for Further Review



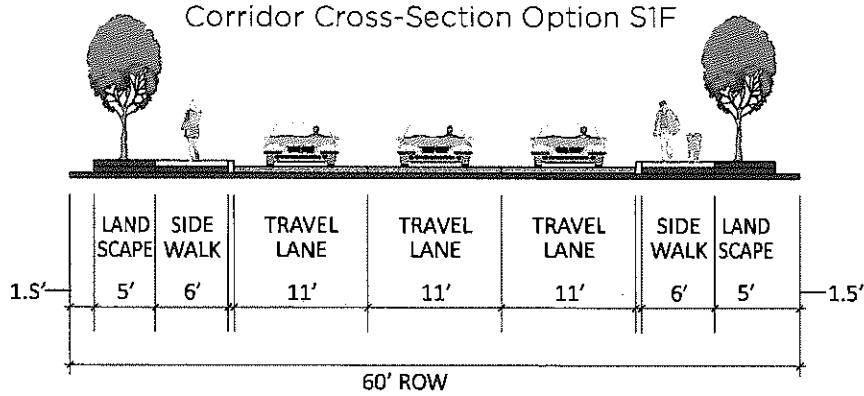
Cross-Section Options

Corridor Cross-Section Option S1E



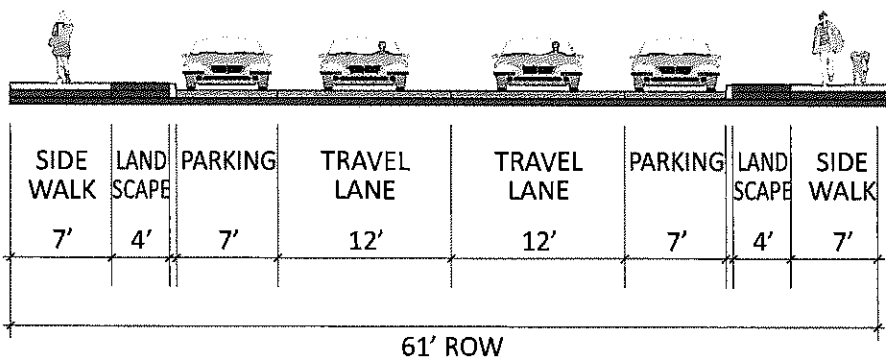
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		X	RED	

Corridor Cross-Section Option S1F



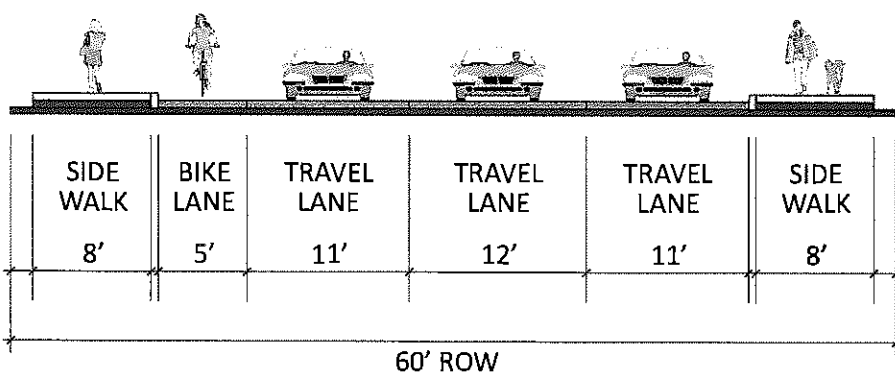
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1H



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		X	RED	

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AG1		Low-key corner gateway.	X		
AG2		Downtown, large-scale gateway.	X		
AG3		Modern artsy gateway.	X		
AG4		Grand overhead gateway.		X	GREEN
AG5		Subtle, artistic gateway.			
AG6		Artistic and unique gateway.			
AG7		Two pillars gateway.		X	

Comments



Alternatives Recommended for Further Review



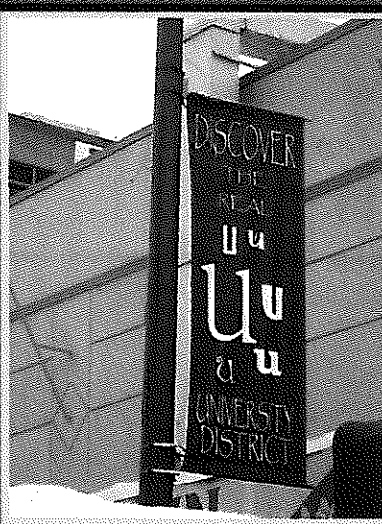


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		<p>Banners that advertise nearby businesses with a style consistent with Gambell Street.</p>	<p>Agree</p> <p>X</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB2		<p>Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.</p>	<p>Agree</p> <p>X</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB3		<p>Seasonal banners or banners promoting events.</p>	<p>Agree</p>	<p>Disagree</p> <p>X</p>	<p>If disagree, how would you change</p> <p>Green</p>

Comments



Alternatives Recommended for Further Review





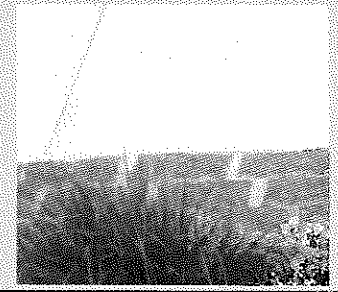

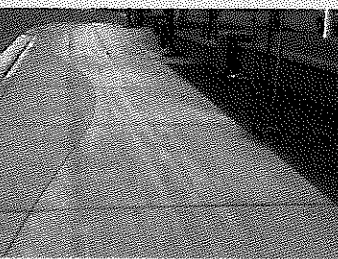


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AP1		Use of different paving materials—labor intensive and expensive.	Agree	Disagree X	If disagree, how would you change GREEN
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	Agree X	Disagree	If disagree, how would you change
AP3		Modular concrete pavers come in different shapes and colors.	Agree X	Disagree	If disagree, how would you change
AP4		A way to break up expanses of sidewalk.	Agree X	Disagree	If disagree, how would you change
AP5		Integrate paving with planting.	Agree	Disagree X	If disagree, how would you change RED
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	Agree X	Disagree	If disagree, how would you change
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	Agree	Disagree X	If disagree, how would you change GREEN

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>But only if there are separate Left & Right hand turn lanes</i>
C1	Signal progression at 35 miles per hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>Seems a little slow - People don't drive 35 m.p.h. now</i>
C2	Turn lanes at 9th, 13th, and 15th	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>But Need both Left + Right Turn lanes</i>
C3	Gambell Street Underpass at 15th Avenue	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>If you talk to the businesses I would support closing off 8th, 11th, 12th + 14th</i>
C6	Shared right of way with businesses	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>Talk to Businesses</i>
C7	Snow removal strategies for roadway and sidewalks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8A	Enhanced pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8B	Mid-block pedestrian crossings	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8C1	Pedestrian signals/flashers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8CII	Pedestrian-only phase (scramble)	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8CIII	Pedestrian countdown signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C8D	Pedestrian overpass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change <i>If you make it high enough for trucks + cover it to protect from snow fall</i>
C9	Add on-street parking	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change
C10	Establish Hyder as a primary SB route	<input type="checkbox"/>	<input type="checkbox"/>	If disagree, how would you change

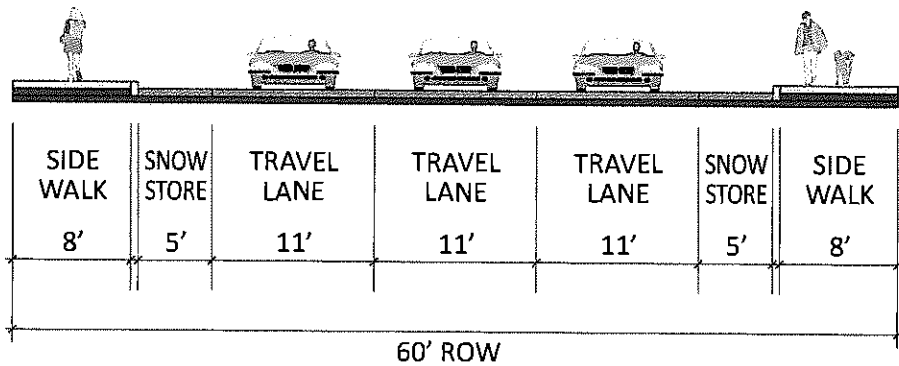
Comments

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review



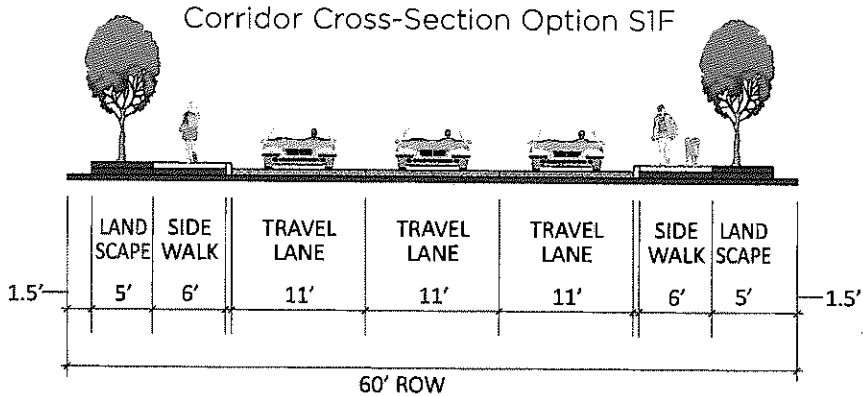
Cross-Section Options

Corridor Cross-Section Option S1E



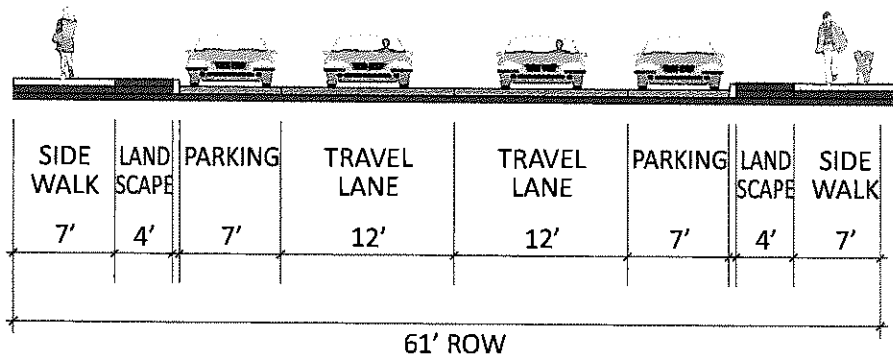
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		✓		

Corridor Cross-Section Option S1F



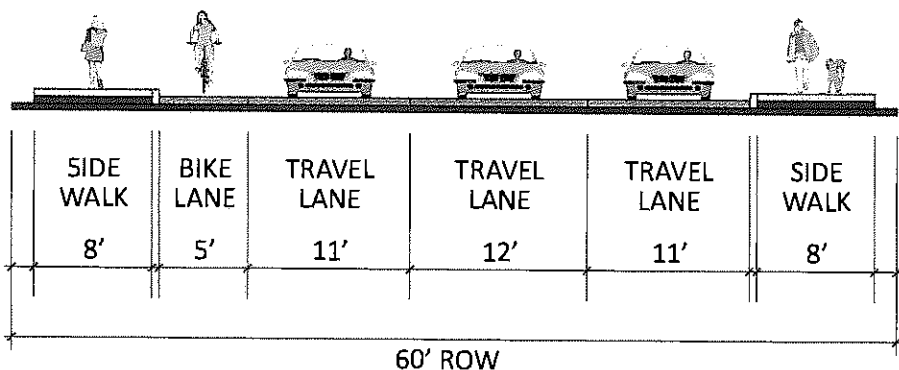
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1H



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		✓		

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AG1		Low-key corner gateway.	Agree	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree	Disagree	If disagree, how would you change
AG3		Modern artsy gateway.	Agree	Disagree	If disagree, how would you change
AG4		Grand overhead gateway.	Agree	Disagree	If disagree, how would you change
AG5		Subtle, artistic gateway.	Agree	Disagree	If disagree, how would you change
AG6		Artistic and unique gateway.	Agree	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree	Disagree	If disagree, how would you change

Put in two vertical pillars → more visible, more attractive, simple, less expensive,

Comments



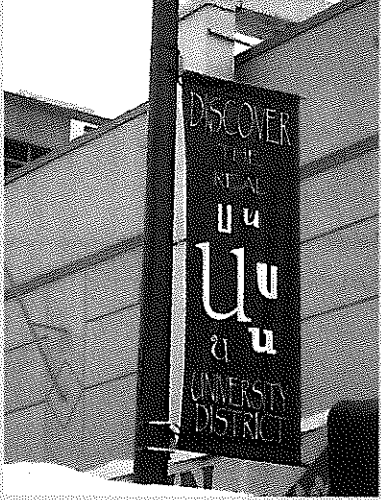
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		Banners that advertise nearby businesses with a style consistent with Gambell Street.	Agree	Disagree	If disagree, how would you change
AB2		Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.	Agree	Disagree	If disagree, how would you change
AB3		Seasonal banners or banners promoting events.	Agree	Disagree	If disagree, how would you change <i>Maintenance nightmare</i>






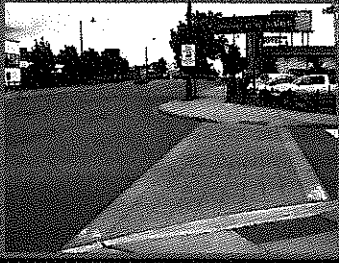

Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.	Agree ✓	Disagree	If disagree, how would you change
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	Agree	Disagree	If disagree, how would you change
AP3		Modular concrete pavers come in different shapes and colors.	Agree	Disagree	If disagree, how would you change
AP4		A way to break up expanses of sidewalk.	Agree	Disagree	If disagree, how would you change
AP5		Integrate paving with planting.	Agree	Disagree ✓	If disagree, how would you change
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	Agree	Disagree	If disagree, how would you change
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	Agree ✓	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review







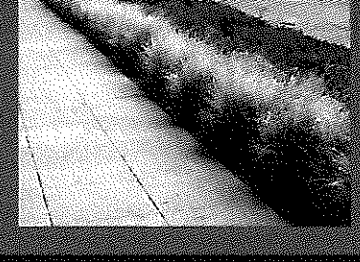


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review



Landscaping Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	If disagree, how would you change
AL2		Raised planters, perhaps portable.	Agree	Disagree	If disagree, how would you change
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	If disagree, how would you change
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	If disagree, how would you change
AL6		Tree grates integrated into sidewalk paving patterns.	Agree ✓	Disagree	If disagree, how would you change
AL7		Plant perennials and use for snow storage	Agree ✓	Disagree	If disagree, how would you change
AL8		Hardscape with small trees and retaining wall in Anchorage.	Agree	Disagree ✓	If disagree, how would you change

Comments



Alternatives Recommended for Further Review





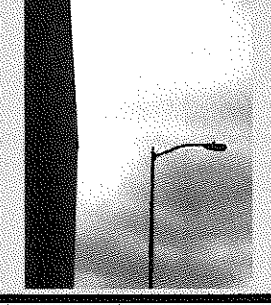



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
A12		Add street-scale lights and the ability to string holiday lights to them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
A13		Traditional cobra head luminaire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
A14		Blend of modern and traditional street-scale light.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
A15		High intensity street light standards vs. street-scale lights.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
A16		Modern, common ornamental light used within Anchorage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>This is most attractive</i>

Comments



Alternatives Recommended for Further Review



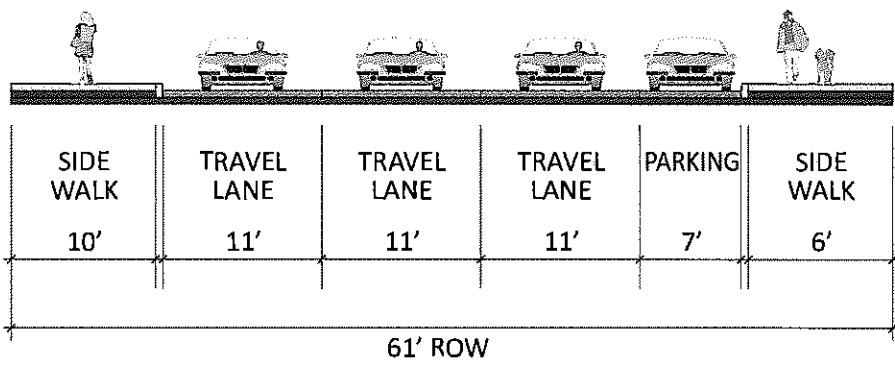
Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

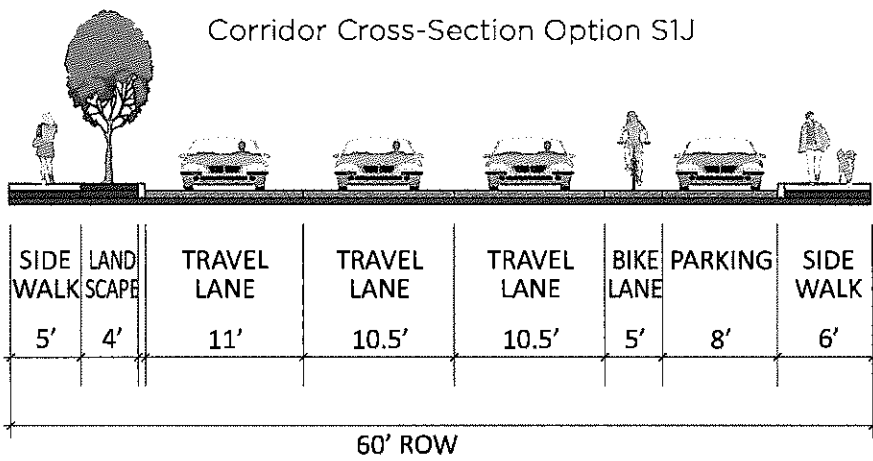
Cross-Section Options

Corridor Cross-Section Option S1I



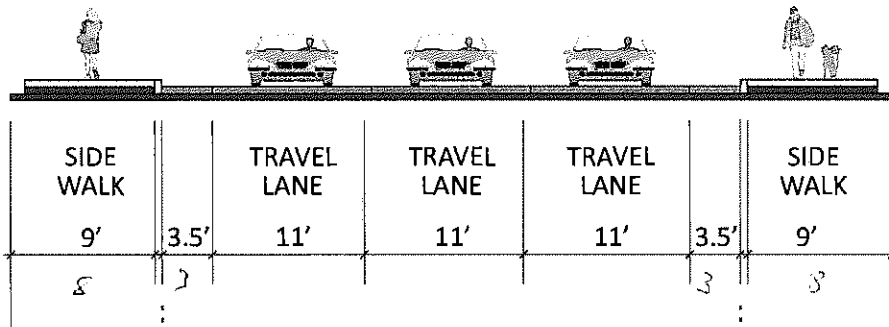
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1J

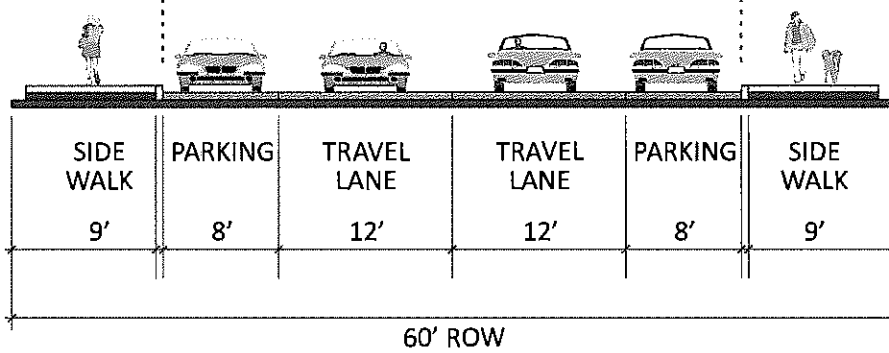


Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1K (Short Term)



Corridor Cross-Section Option S1K (Long Term)



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓	✓	I think the travel lanes should be wider + sacrifice a bit on the	

show storage 3.5 foot sections. Show storage will go on to the 9' sidewalk a bit anyway. This might be OK

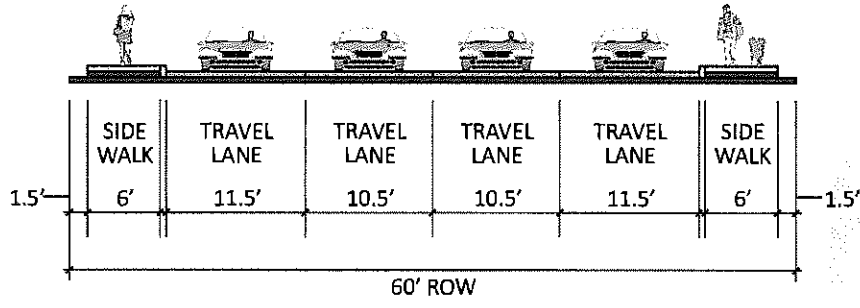
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

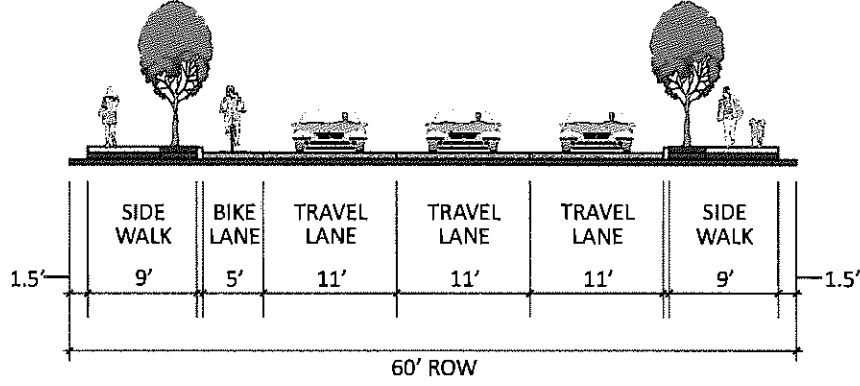
Cross-Section Options

Existing Gambell Street Cross-Section



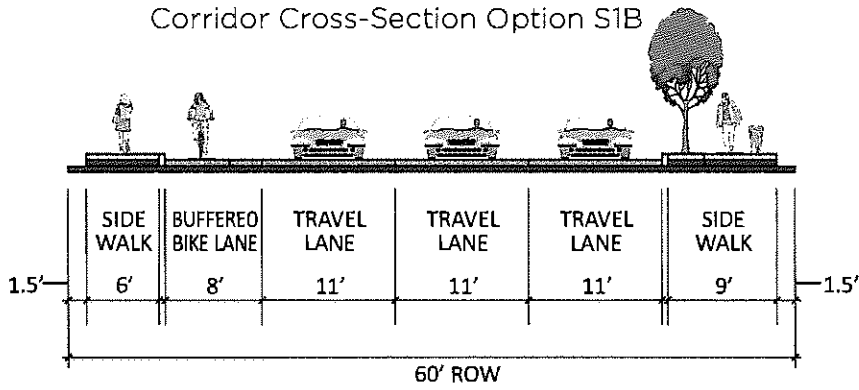
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1A



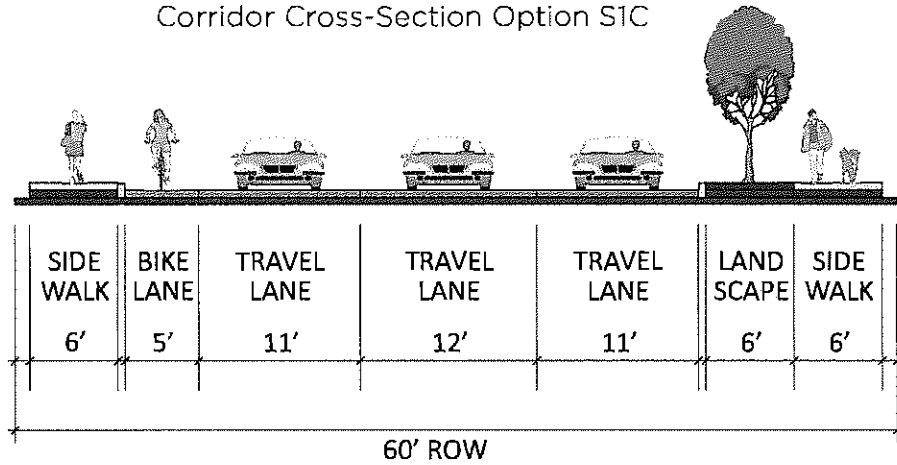
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		✓		

Corridor Cross-Section Option S1B



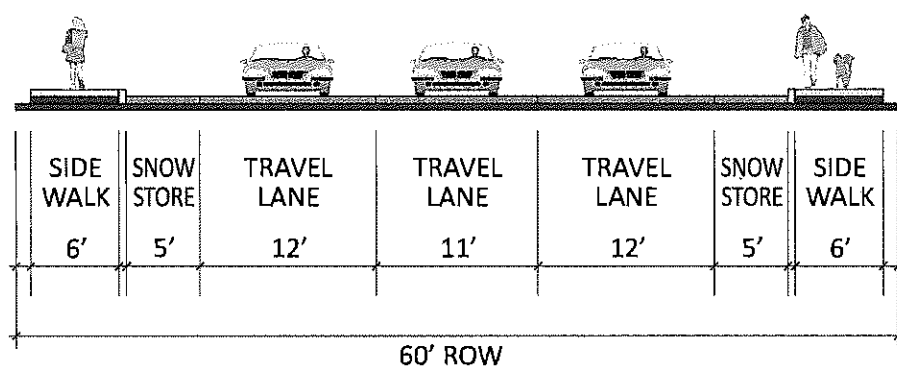
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1C



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1D



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓		<i>This could work since sidewalk will narrow during at</i>	

intersections anyway & this gives wider travel lanes & more room for snow storage

 Alternatives Recommended for Further Review

 Alternatives Under Consideration for Further Review

 Alternatives NOT Recommended for Further Review



Landscaping Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.		X	
AL2		Raised planters, perhaps portable.	X		
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	X		
AL4		Low, simple plants integrated into sidewalk and paving.		X	Red
AL5		Separate sidewalk from street with landscaping.		X	Red
AL6		Tree grates integrated into sidewalk paving patterns.		X	Red
AL7		Plant perennials and use for snow storage		X	Red
AL8		Hardscape with small trees and retaining wall in Anchorage.		X	GREEN

Comments



Alternatives Recommended for Further Review





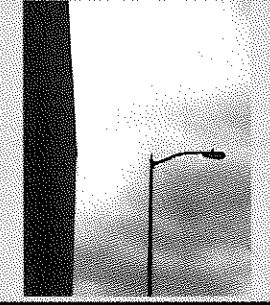



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	X		
A12		Add street-scale lights and the ability to string holiday lights to them.			
A13		Traditional cobra head luminaire.		X	
A14		Blend of modern and traditional street-scale light.		X	DOT won't accept
A15		High intensity street light standards vs. street-scale lights.		X	
A16		Modern, common ornamental light used within Anchorage.		X	Green for between High lights

Comments



Alternatives Recommended for Further Review



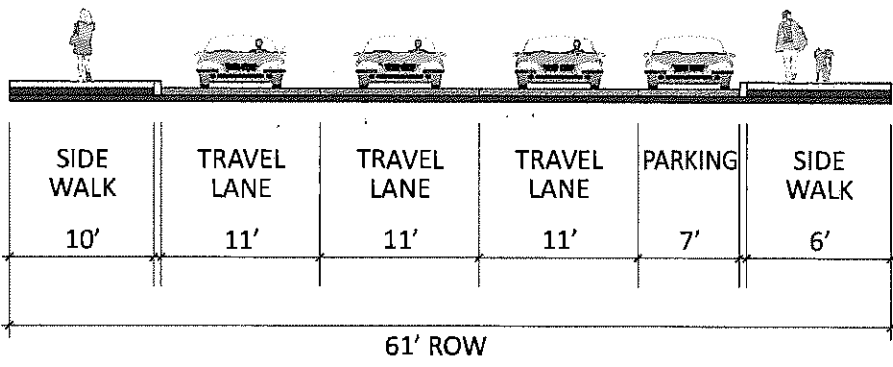
Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

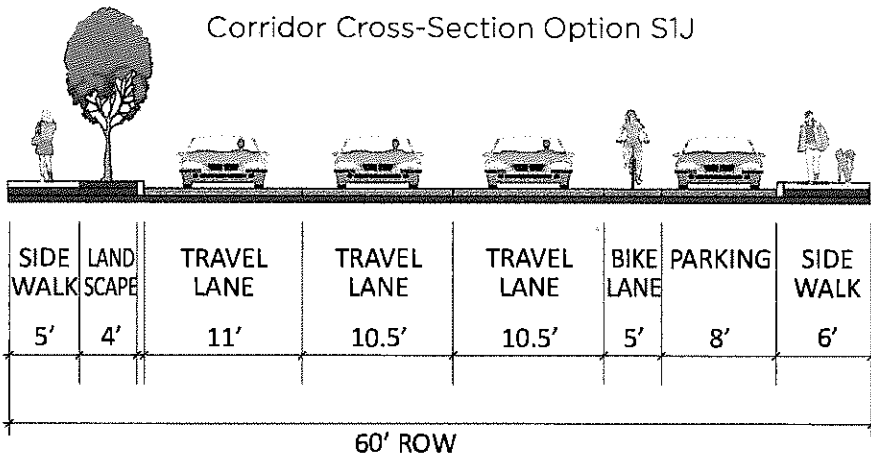
Cross-Section Options

Corridor Cross-Section Option S1I



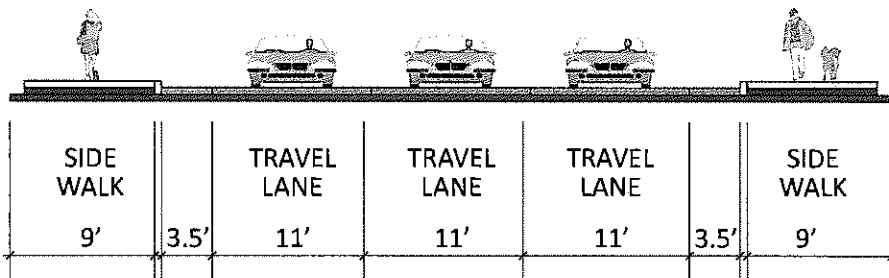
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1J



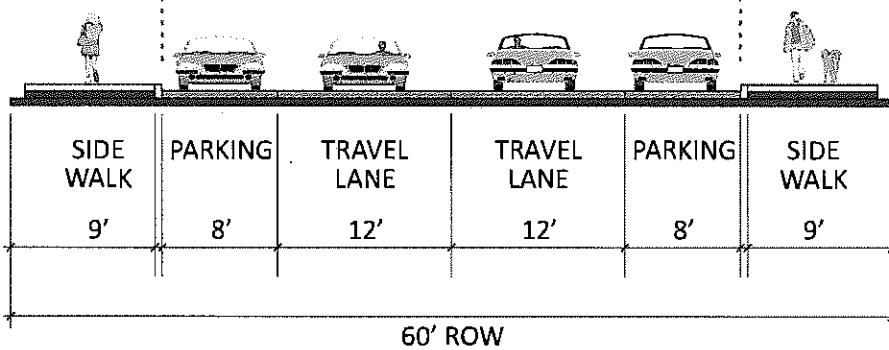
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1K (Short Term)



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1K (Long Term)



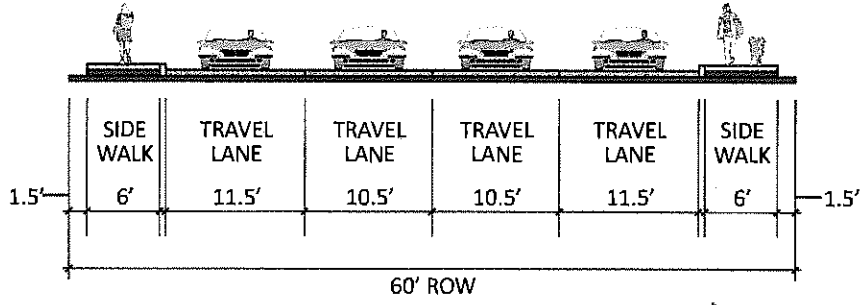
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

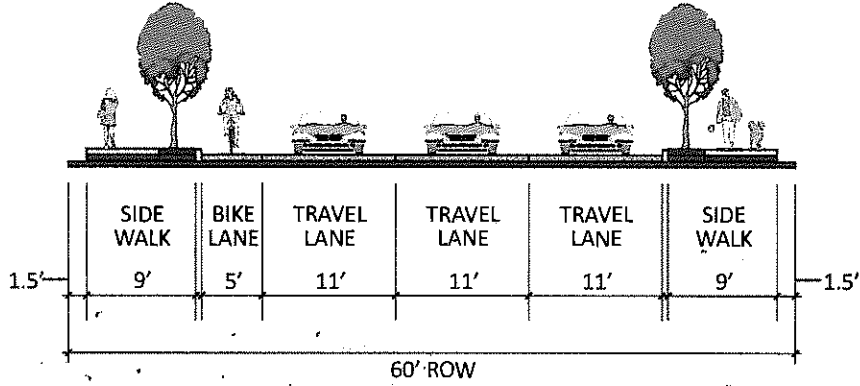
Cross-Section Options

Existing Gambell Street Cross-Section



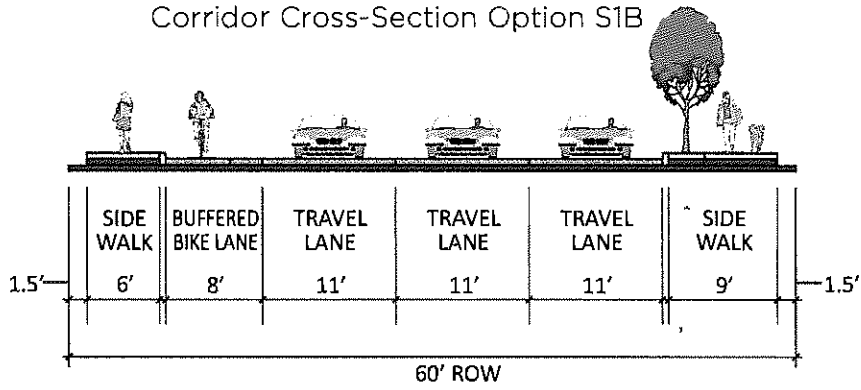
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1A



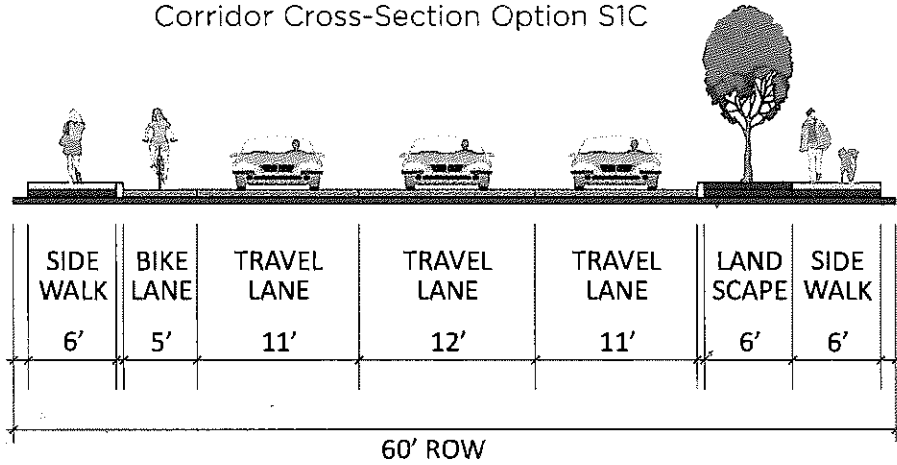
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	/	X	RED	

Corridor Cross-Section Option S1B



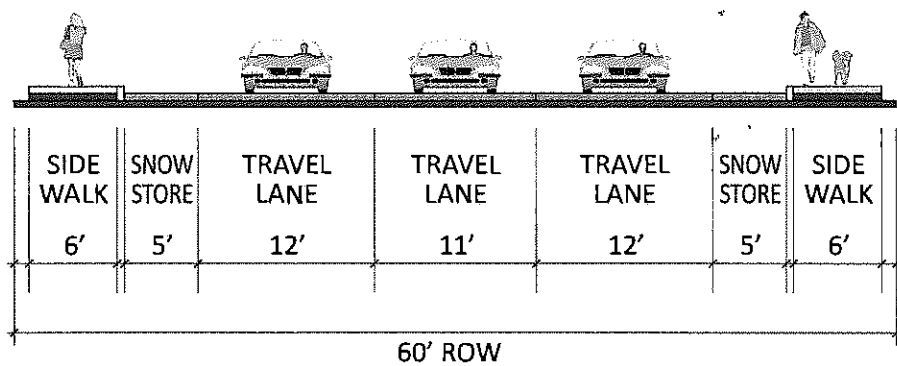
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1C



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			



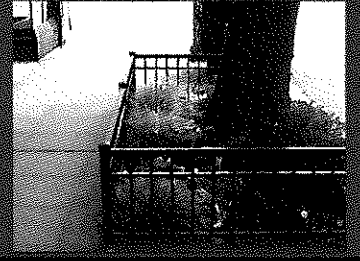





Corridor Cross-Section Option S1D



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
			Keep for discussion	

- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

Landscaping Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	If disagree, how would you change <i>No rock nor gravel</i>
AL2		Raised planters, perhaps portable.	Agree X	Disagree	If disagree, how would you change <i>If feasible would be nice on roadside to "protect" pedestrians But take space + maintenance</i>
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree X	If disagree, how would you change <i>Make higher for more visibility Do Not put down mid of pavement</i>
AL5		Separate sidewalk from street with landscaping.	Agree X	Disagree	If disagree, how would you change
AL6		Tree grates integrated into sidewalk paving patterns.	Agree X	Disagree	If disagree, how would you change
AL7		Plant perennials and use for snow storage	Agree	Disagree	If disagree, how would you change
AL8		Hardscape with small trees and retaining wall in Anchorage.	Agree	Disagree X	If disagree, how would you change <i>Don't put walls inside - only on roadside for pedestrian safety + comfort</i>

Comments



Alternatives Recommended for Further Review





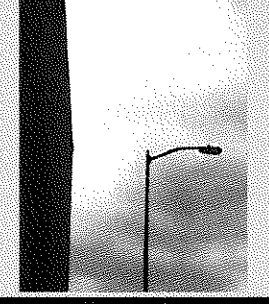



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.			
A12		Add street-scale lights and the ability to string holiday lights to them.	X		
A13		Traditional cobra head luminaire.			
A14		Blend of modern and traditional street-scale light.	X		
A15		High intensity street light standards vs. street-scale lights.			
A16		Modern, common ornamental light used within Anchorage.	X		

Comments



Alternatives Recommended for Further Review



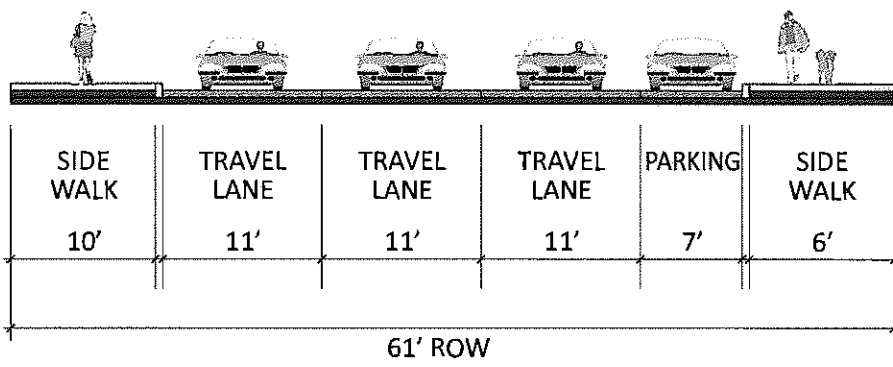
Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

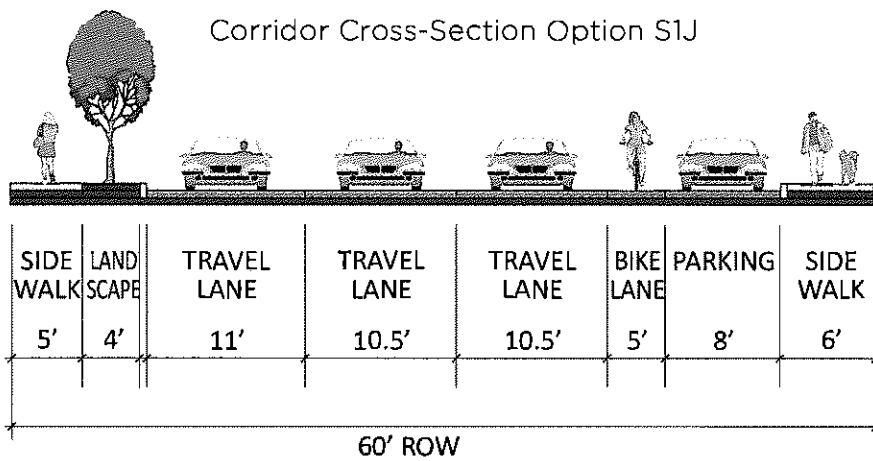
Cross-Section Options

Corridor Cross-Section Option S1I



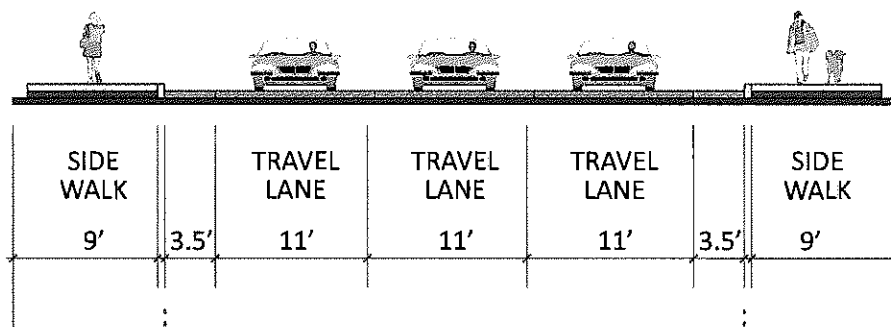
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1J



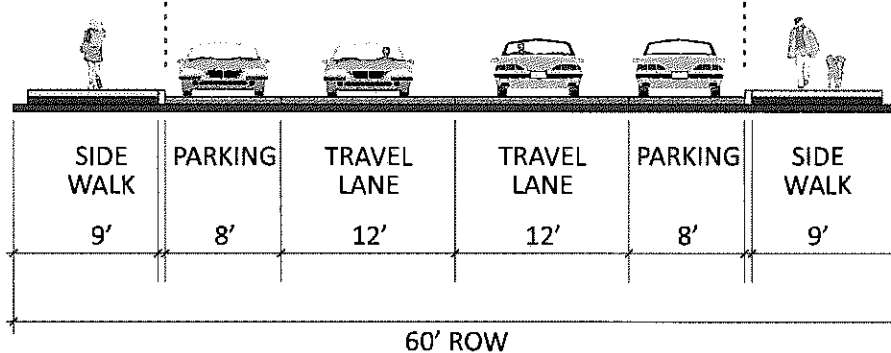
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1K (Short Term)



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1K (Long Term)



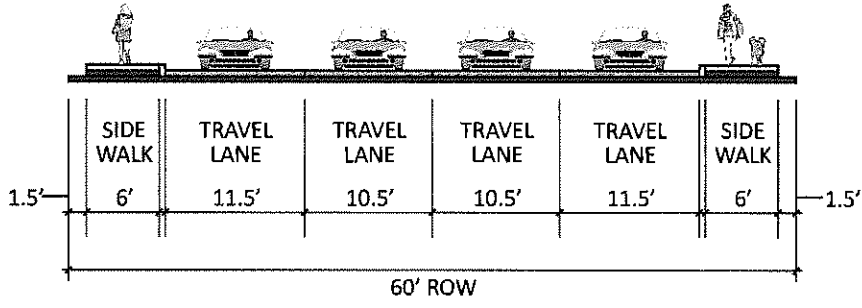
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

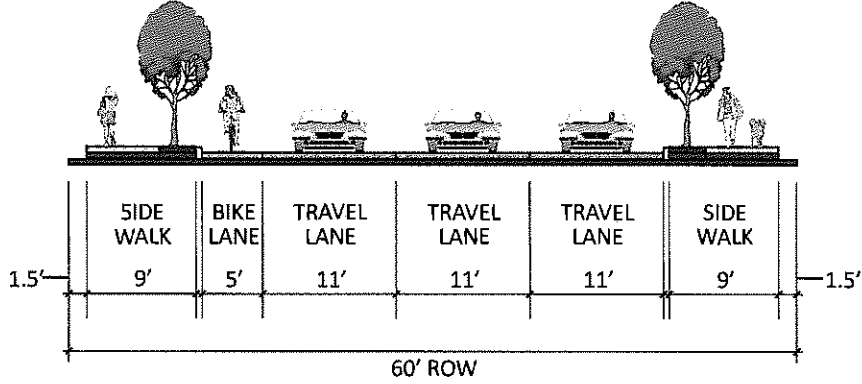
Cross-Section Options

Existing Gambell Street Cross-Section



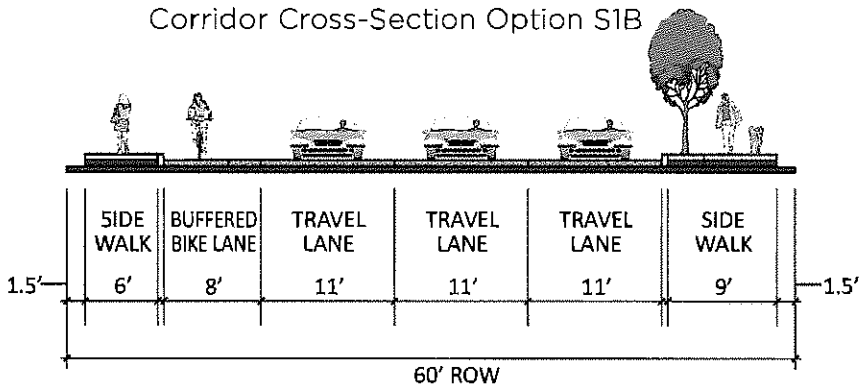
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1A



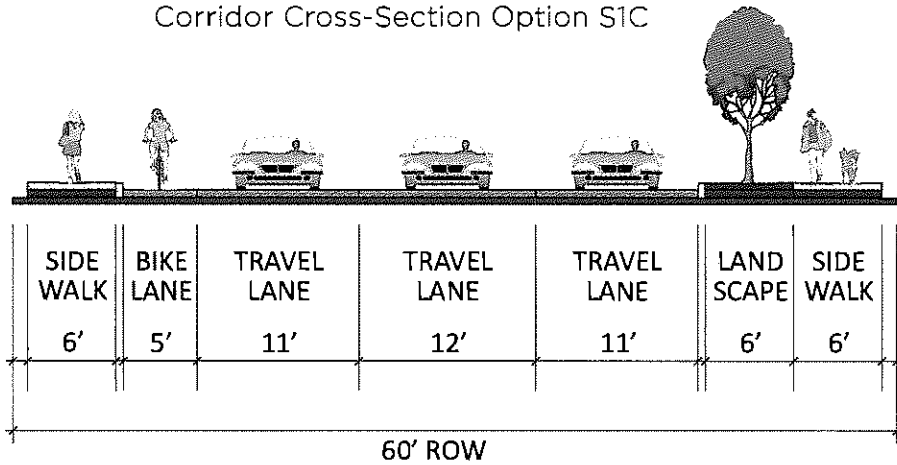
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X		Not sure abt bike lane but landscaping on road side good for pedest	

Corridor Cross-Section Option S1B



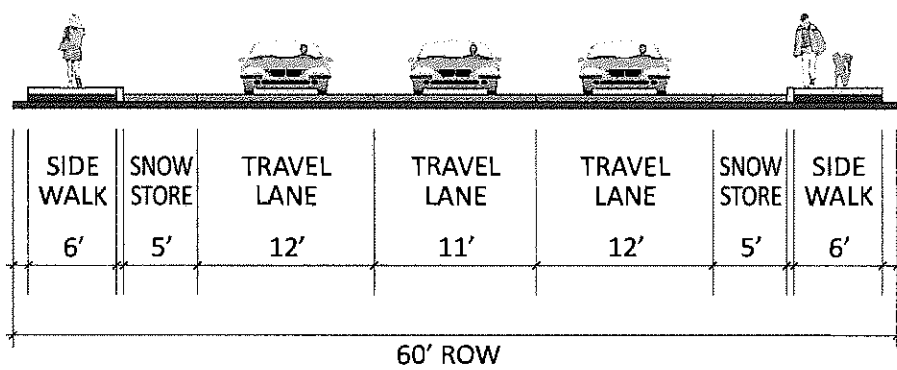
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1C



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1D



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

■ Alternatives Recommended for Further Review

■ Alternatives Under Consideration for Further Review

■ Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	if current
C1	Signal progression at 35 miles per hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C2	Turn lanes at 9th, 13th, and 15th	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C3	Gambell Street Underpass at 15th Avenue	<input type="checkbox"/>	<input type="checkbox"/>	
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	<input type="checkbox"/>	<input checked="" type="checkbox"/>	probably too expensive would need to get at least 10% of the way there
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	<input type="checkbox"/>	<input type="checkbox"/>	
C6	Shared right of way with businesses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C7	Snow removal strategies for roadway and sidewalks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8A	Enhanced pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8B	Mid-block pedestrian crossings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	people need to walk to the current crossing
C8CI	Pedestrian signals/flashers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8CII	Pedestrian-only phase (scramble)	<input type="checkbox"/>	<input type="checkbox"/>	
C8CIII	Pedestrian countdown signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8D	Pedestrian overpass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	probably too expensive
C9	Add on-street parking	<input type="checkbox"/>	<input type="checkbox"/>	
C10	Establish Hyder as a primary SB route	<input type="checkbox"/>	<input type="checkbox"/>	

Comments

C-5 could be beneficial but would need approval of property owners.
 Bishop office need to get rid of the high (golf type) fence - needs to be a friendly place.

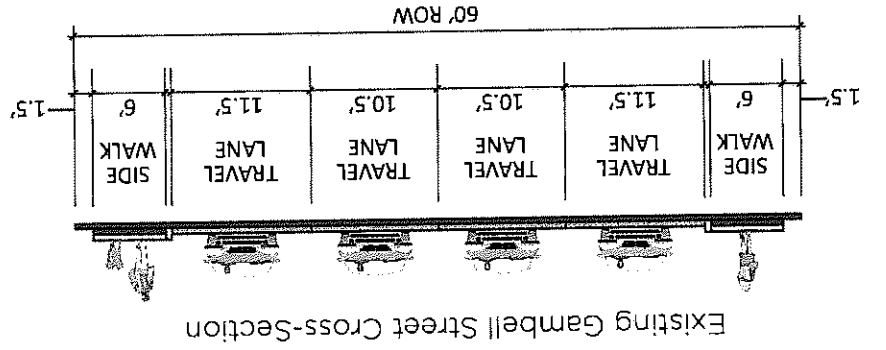
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

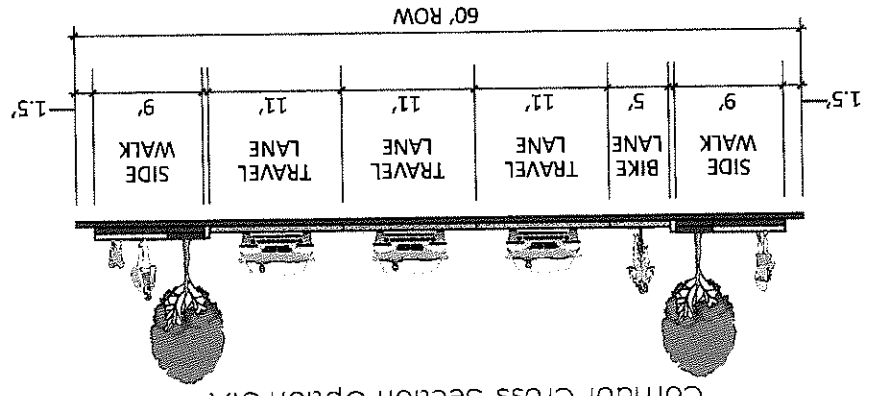
Alternatives NOT Recommended for Further Review



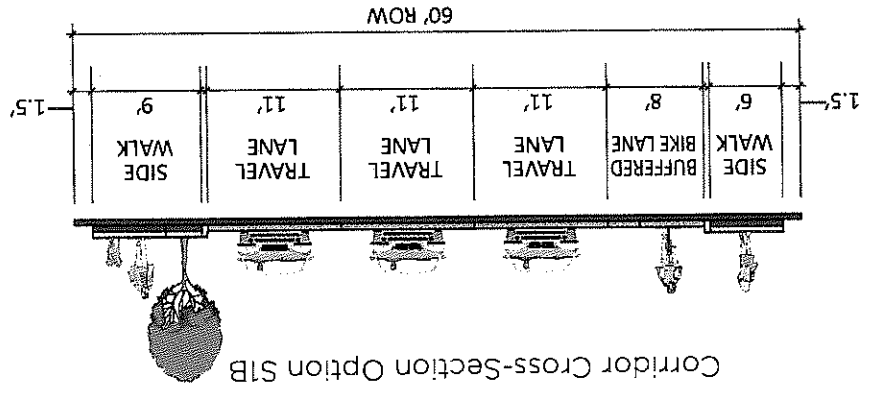
Cross-Section Options



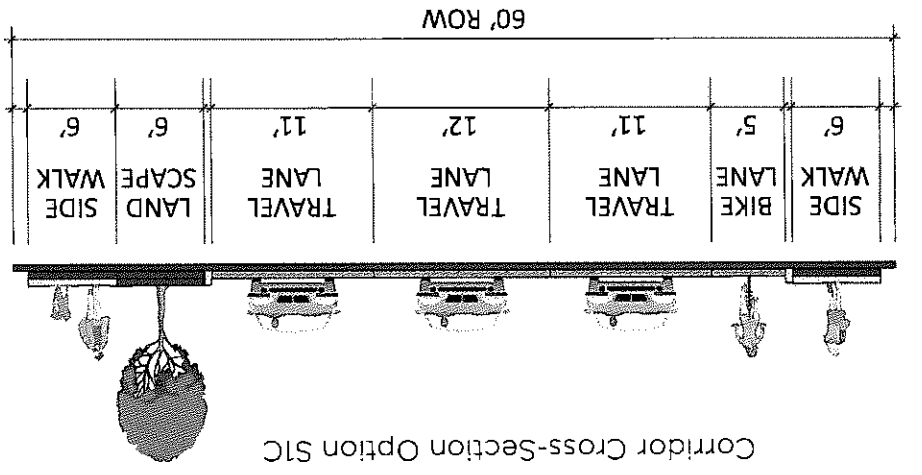
Existing Gambell Street Cross-Section



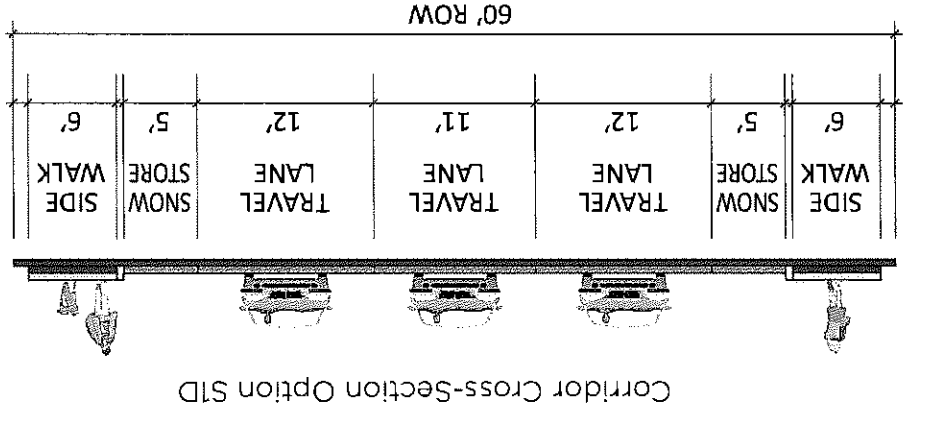
Corridor Cross-Section Option S1A



Corridor Cross-Section Option S1B



Corridor Cross-Section Option S1C



Corridor Cross-Section Option S1D

Recommendation	Agree	Disagree		
Rank				

Recommendation	Agree	Disagree		
Rank				

Recommendation	Agree	Disagree		
Rank				

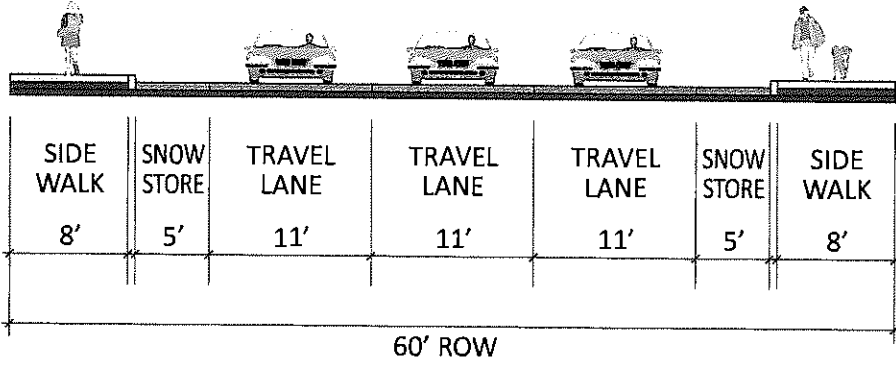
Recommendation	Agree	Disagree		
Rank				

Recommendation	Agree	Disagree		
Rank				

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review

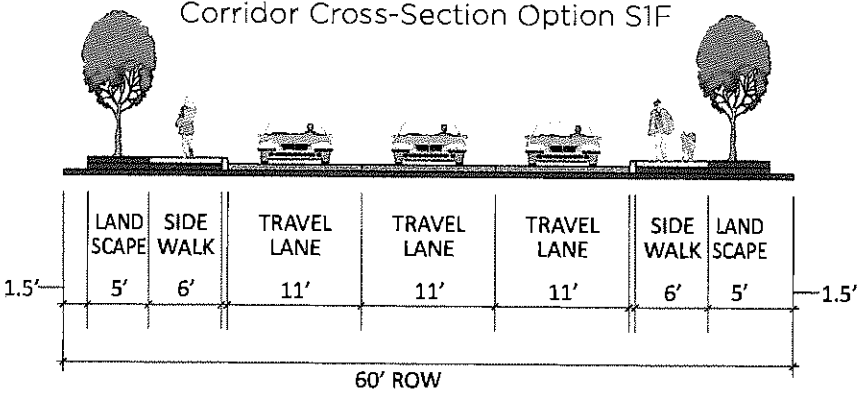
Cross-Section Options

Corridor Cross-Section Option S1E



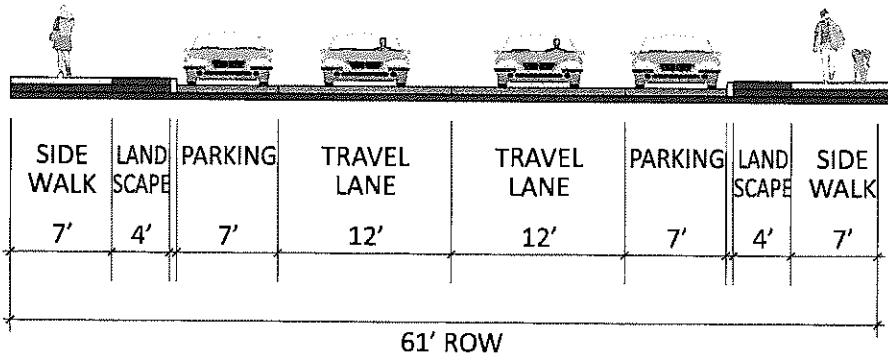
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1F



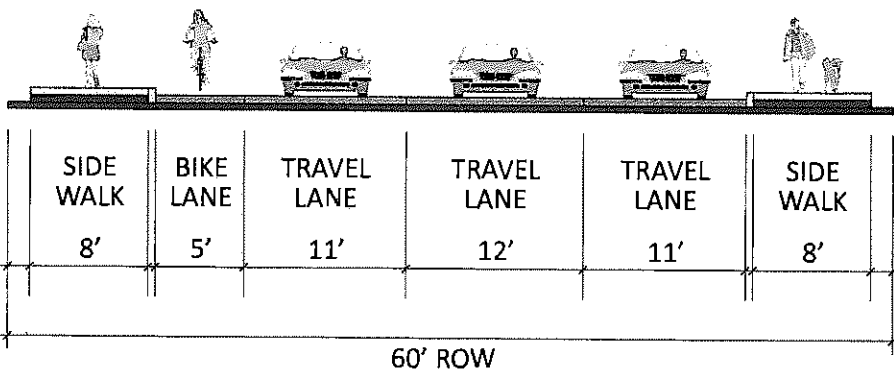
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1H



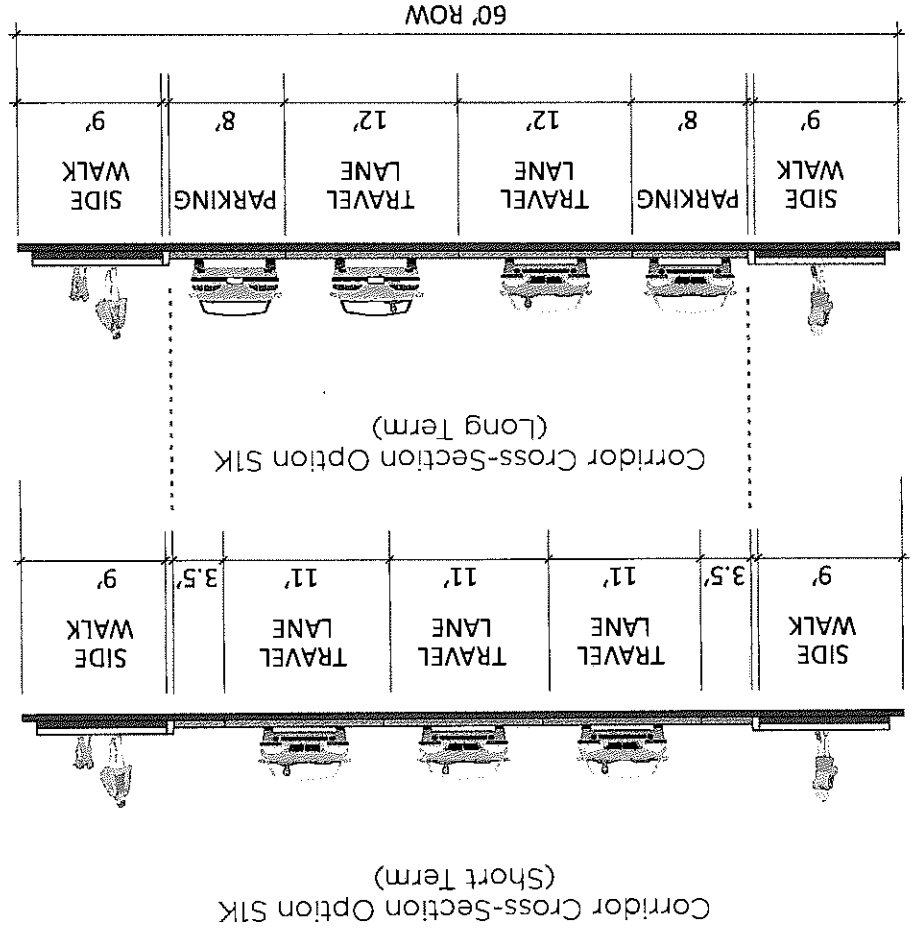
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

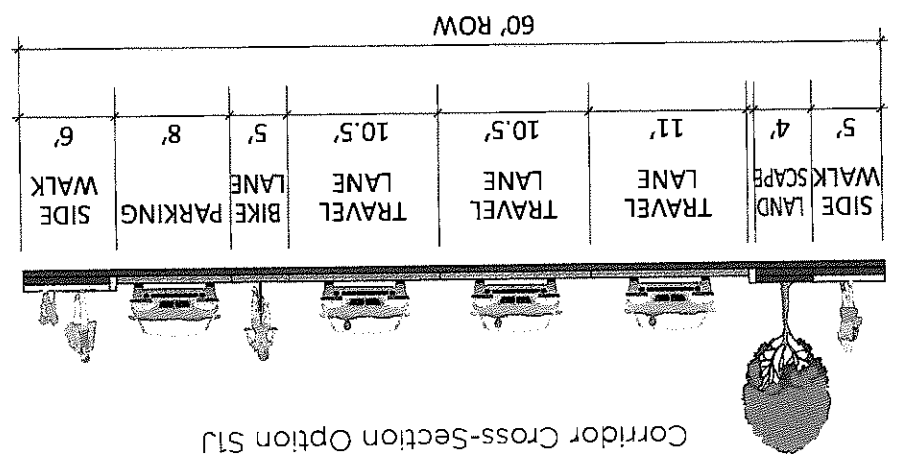
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

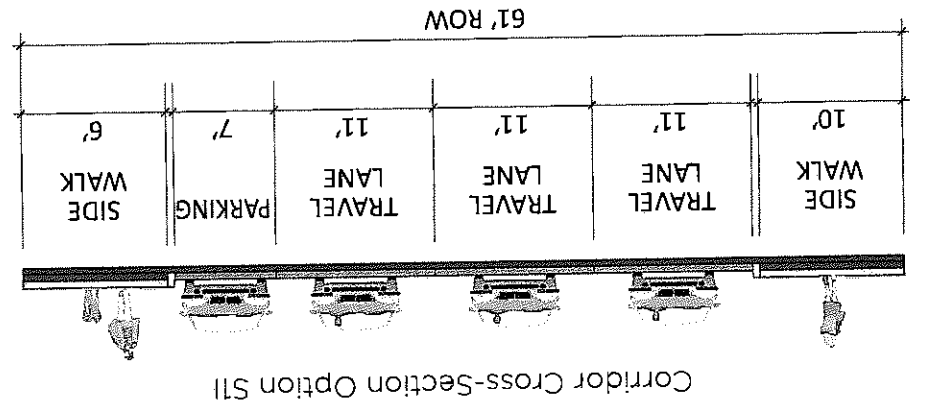
Alternatives NOT Recommended for Further Review



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Cross-Section Options

Gateway Options

> all the gateway ideas have to be at least 18' to accommodate Trucks

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AG1		Low-key corner gateway.			
AG2		Downtown, large-scale gateway.			
AG3		Modern artsy gateway.			
AG4		Grand overhead gateway.			
AG5		Subtle, artistic gateway.			
AG6		Artistic and unique gateway.			
AG7		Two pillars gateway.			

Comments

see above



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Please provide your thoughts on this option for Gambell Street

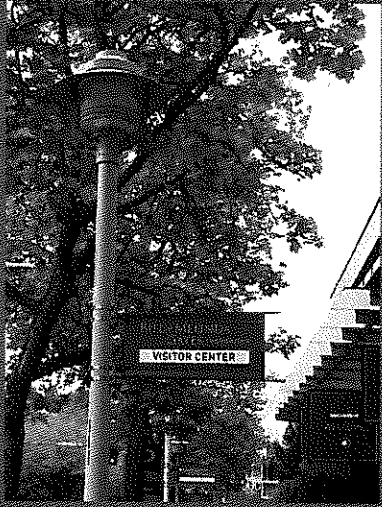

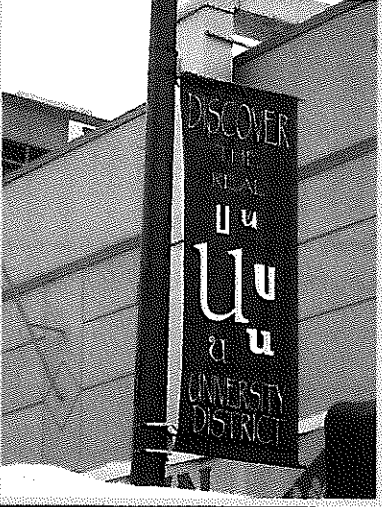
Option	Photo	Description	Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	Agree	Disagree	If disagree, how would you change
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	If disagree, how would you change
A13		Traditional cobra head luminaire.	Agree	Disagree	If disagree, how would you change
A14		Blend of modern and traditional street-scale light.	Agree	Disagree	If disagree, how would you change
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	If disagree, how would you change
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	If disagree, how would you change

Comments

use any conventional lights that are easily available.

Alternatives Recommended
 Alternatives Under Consideration
 Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AB1		Banners that advertise nearby businesses with a style consistent with Gambell Street.			
AB2		Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.			
AB3		Seasonal banners or banners promoting events.			

Comments

needs to meet historic preservation




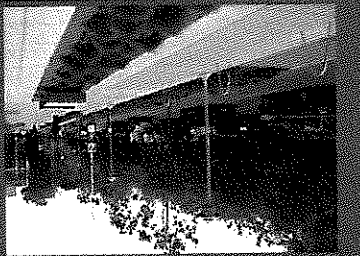
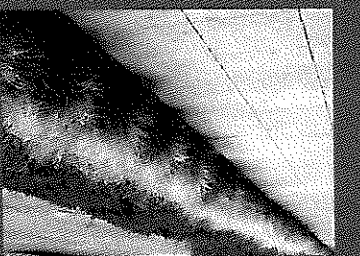



Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Landscaping Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	If disagree, how would you change
AL2		Raised planters, perhaps portable	Agree	Disagree	If disagree, how would you change
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	If disagree, how would you change
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	If disagree, how would you change
AL6		Tree grates integrated into sidewalk paving patterns.	Agree	Disagree	If disagree, how would you change
AL7		Plant perennials and use for snow storage	Agree	Disagree	If disagree, how would you change
AL8		Hardscap with small trees and retaining wall in Anchorage.	Agree	Disagree	If disagree, how would you change

Comments

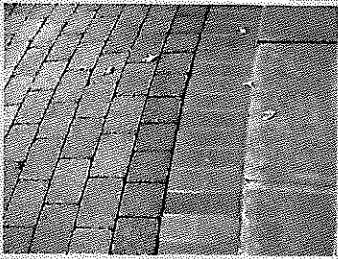



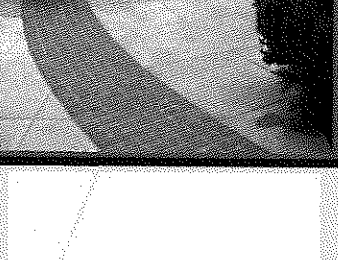
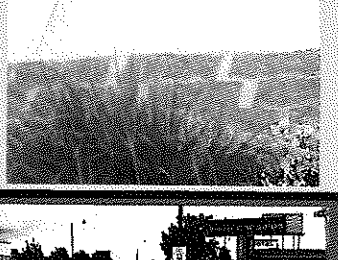

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.			
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.			
AP3		Modular concrete pavers come in different shapes and colors.			
AP4		A way to break up expanses of sidewalk.			
AP5		Integrate paving with planting.			
AP6		Stamped colored concrete paving at crosswalk to increase visibility.			
AP7		Concrete sidewalk with curvilinear layout in Anchorage.			

Comments

No vegetation unless whoever is responsible to take care of is notified and approves

Keep everything to the least expensive but will last a longer time



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	Agree ✓	Disagree	If disagree, how would you change
C1	Signal progression at 35 miles per hour	Agree ✓	Disagree	If disagree, how would you change
C2	Turn lanes at 9th, 13th, and 15th	Agree ✓	Disagree	If disagree, how would you change
C3	Gambell Street Underpass at 15th Avenue	Agree ✓	Disagree	If disagree, how would you change
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	Agree ✓	Disagree	If disagree, how would you change
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	Agree ✓	Disagree	If disagree, how would you change
C6	Shared right of way with businesses	Agree ✓	Disagree	If disagree, how would you change
C7	Snow removal strategies for roadway and sidewalks	Agree ✓	Disagree	If disagree, how would you change
C8A	Enhanced pedestrian crossings	Agree ✓	Disagree	If disagree, how would you change
C8B	Mid-block pedestrian crossings	Agree ✓	Disagree	If disagree, how would you change
C8CI	Pedestrian signals/flashers	Agree ✓	Disagree	If disagree, how would you change
C8CII	Pedestrian-only phase (scramble)	Agree ✓	Disagree	If disagree, how would you change
C8CIII	Pedestrian countdown signals	Agree ✓	Disagree	If disagree, how would you change
C8D	Pedestrian overpass	Agree ✓	Disagree	If disagree, how would you change <i>Should be green for Sullivan Arena</i>
C9	Add on-street parking	Agree ✓	Disagree	If disagree, how would you change
C10	Establish Hyder as a primary SB route	Agree ✓	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



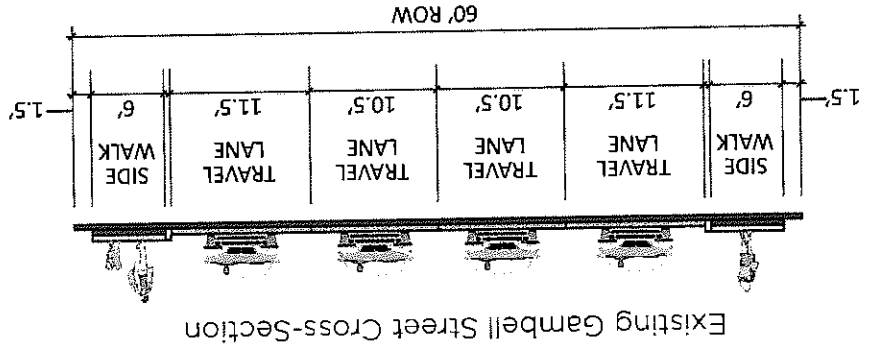
Alternatives Under Consideration for Further Review



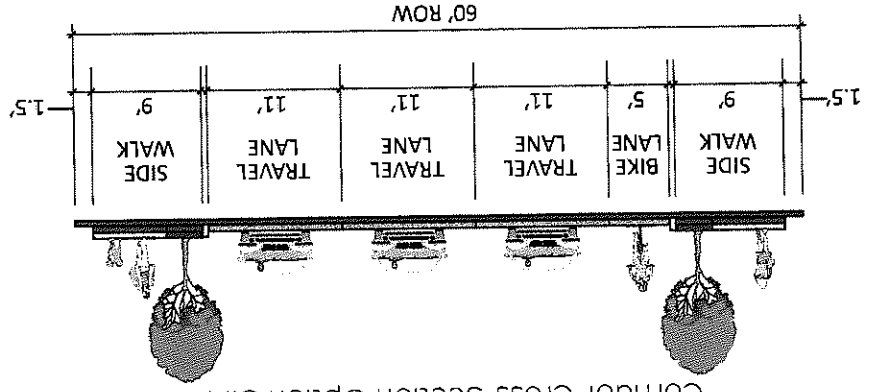
Alternatives NOT Recommended for Further Review



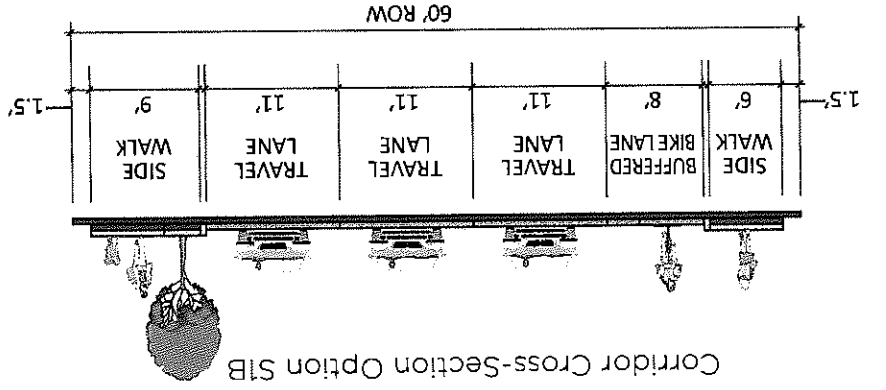
Cross-Section Options



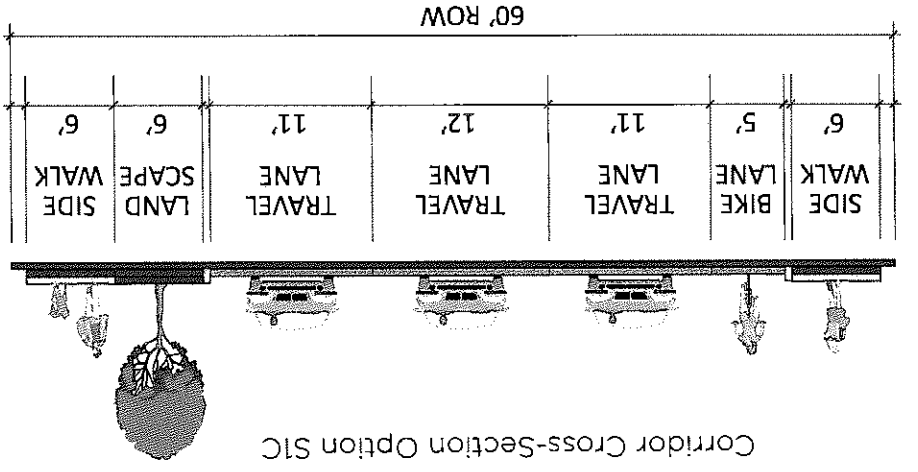
Existing Gambell Street Cross-Section



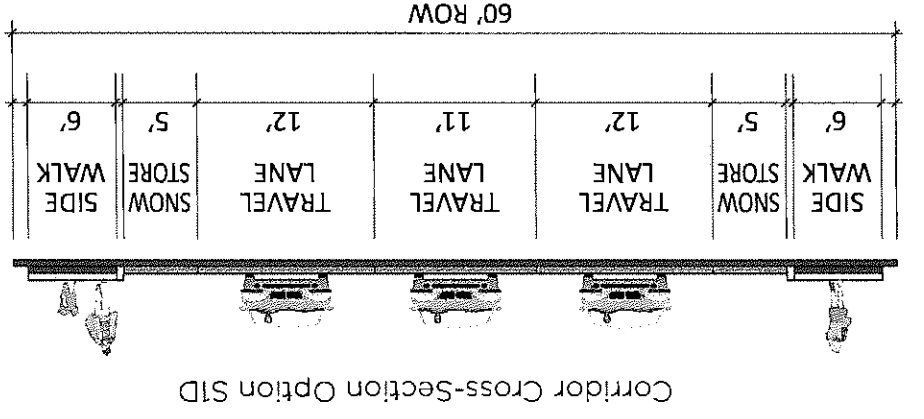
Corridor Cross-Section Option S1A



Corridor Cross-Section Option S1B



Corridor Cross-Section Option S1C



Corridor Cross-Section Option S1D

Recommendation	Agree	Disagree			
If disagree, what would you change?			Need solid traffic results to convince ADOT.		
Rank					

Recommendation	Agree	Disagree			
If disagree, what would you change?					
Rank					

Recommendation	Agree	Disagree			
If disagree, what would you change?					
Rank					

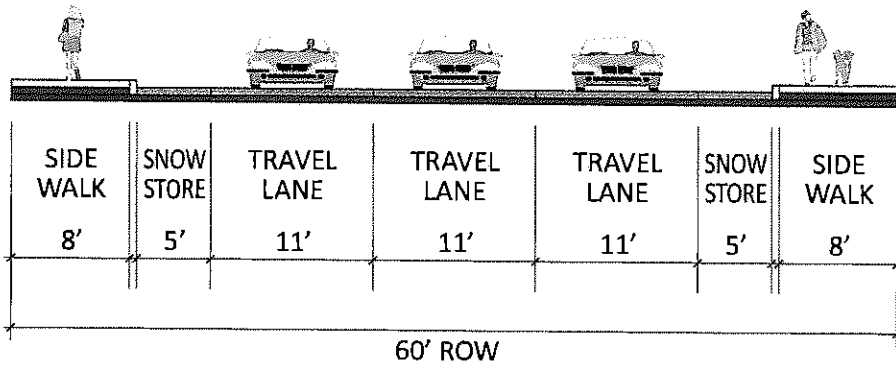
Recommendation	Agree	Disagree			
If disagree, what would you change?					
Rank					

Recommendation	Agree	Disagree			
If disagree, what would you change?					
Rank					

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review

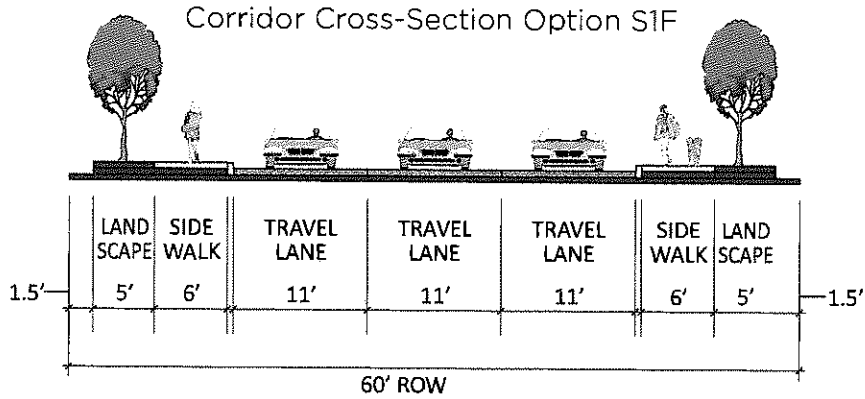
Cross-Section Options

Corridor Cross-Section Option S1E



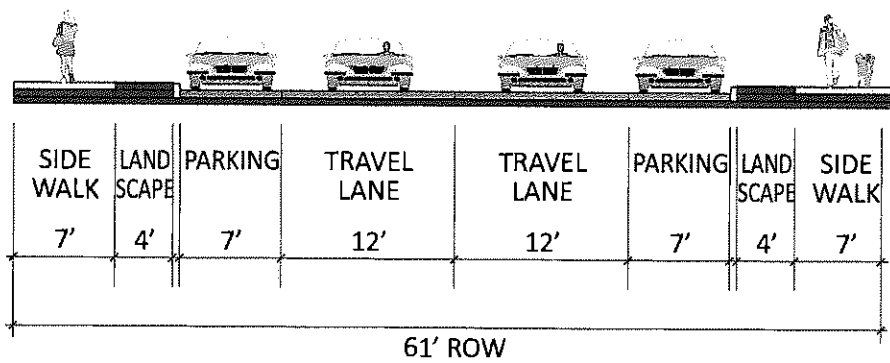
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1F



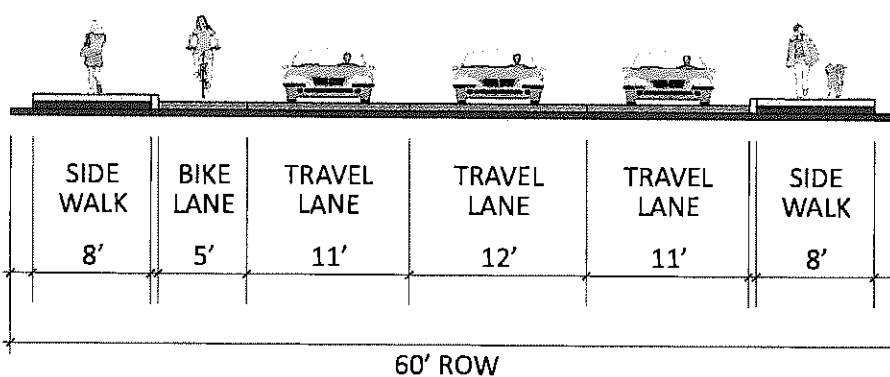
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓			

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓			

Corridor Cross-Section Option S1H

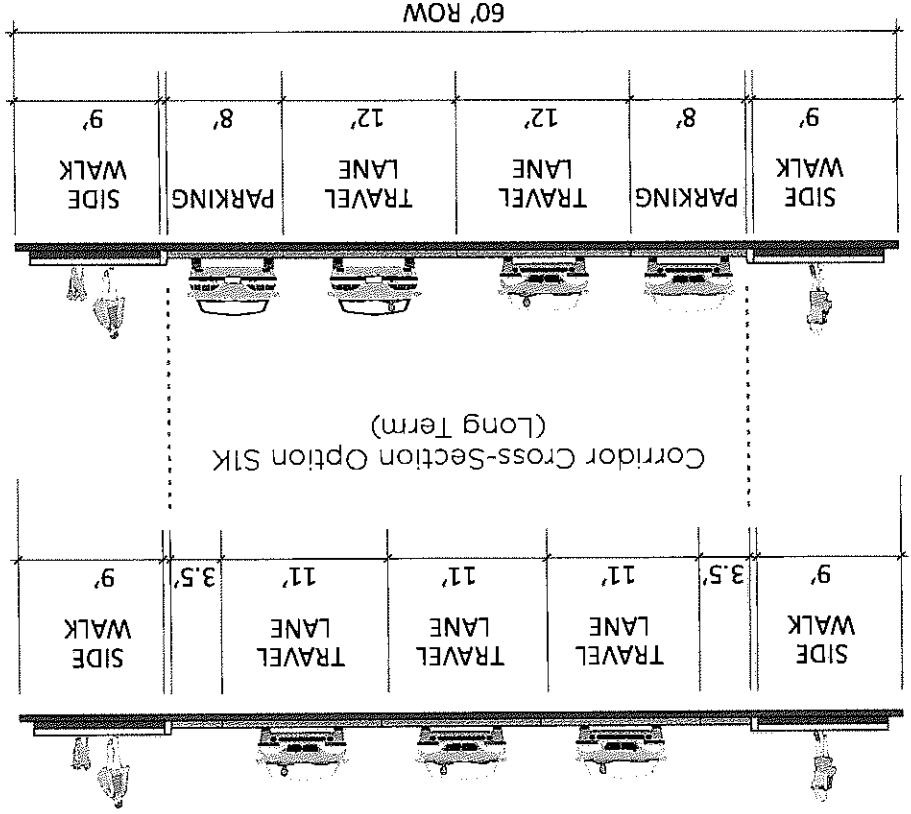


Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

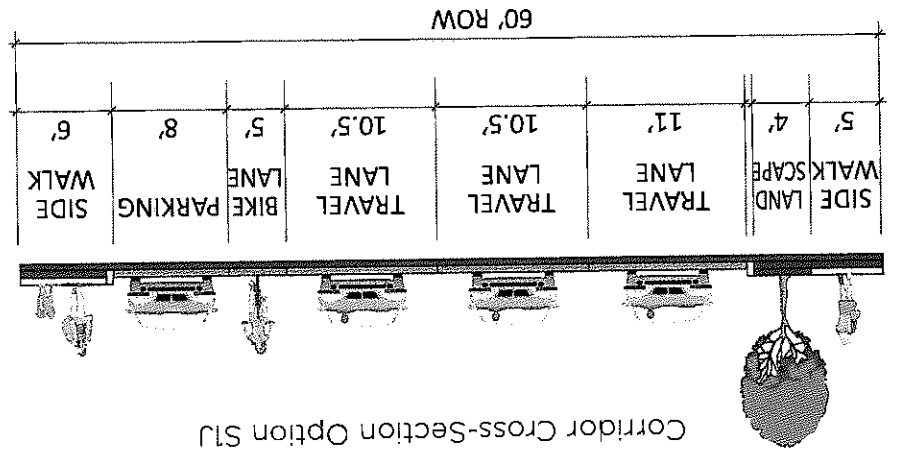
- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

Cross-Section Options

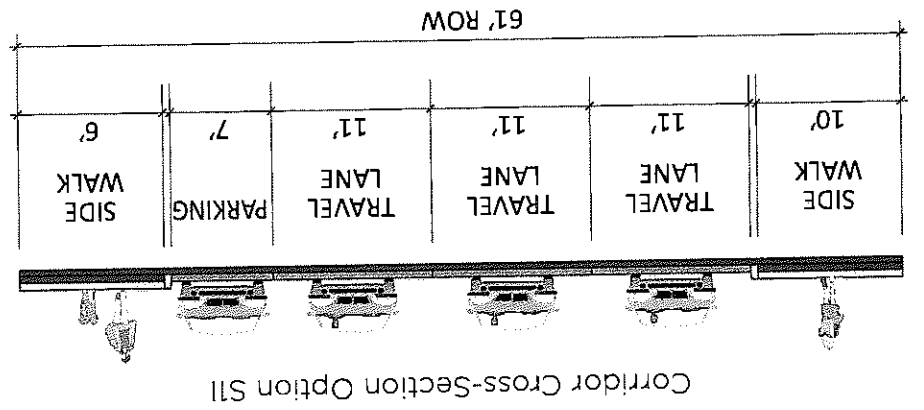
- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank





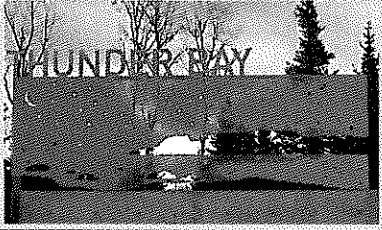




Recommendation	Agree	Disagree	If disagree, what would you change?	Rank



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AG1		Low-key corner gateway.	Agree ✓	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree ✓	Disagree	If disagree, how would you change
AG3		Modern artsy gateway	Agree ✓	Disagree	If disagree, how would you change
AG4		Grand overhead gateway.	Agree ✓	Disagree	If disagree, how would you change
AG5		Subtle, artistic gateway.	Agree ✓	Disagree	If disagree, how would you change
AG6		Artistic and unique gateway.	Agree ✓	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree	Disagree ✓	If disagree, how would you change <i>Consider Pillars w/out connection</i>

Comments



Alternatives Recommended for Further Review






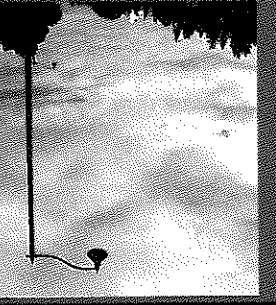
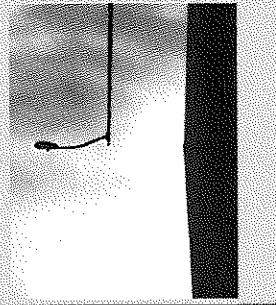

Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights	Agree	Disagree	
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	
A13		Traditional cobra head luminaire.	Agree	Disagree	Should be yellow.
A14		Blend of modern and traditional street-scale light	Agree	Disagree	
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	



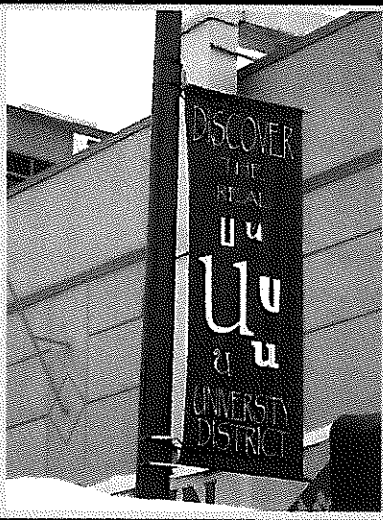
Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		<p>Banners that advertise nearby businesses with a style consistent with Gambell Street.</p>	<p>Agree</p> <p>✓</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB2		<p>Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.</p>	<p>Agree</p> <p>✓</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB3		<p>Seasonal banners or banners promoting events.</p>	<p>Agree</p> <p>✓</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>

Comments



Alternatives Recommended for Further Review











Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Landscaping Options

Please provide your thoughts on this option for Gambell Street

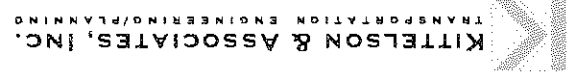
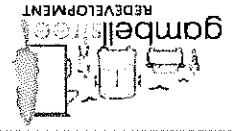
Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	✓	Disagree	If disagree, how would you change
AL2		Raised planters, perhaps portable.	✓	Disagree	If disagree, how would you change
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	✓	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	✓	Disagree	If disagree, how would you change
AL5		Separate sidewalk from street with landscaping.	✓	Disagree	If disagree, how would you change Not consistent w/ corridor section rel. options
AL6		Tree grates integrated into sidewalk paving patterns.	✓	Disagree	If disagree, how would you change Should be on property outside flow
AL7		Plant perennials and use for snow storage	✓	Disagree	If disagree, how would you change
AL8		Hardscape with small trees and retaining wall in Anchorage.	✓	Disagree	If disagree, how would you change

Comments

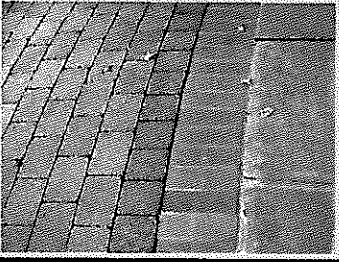





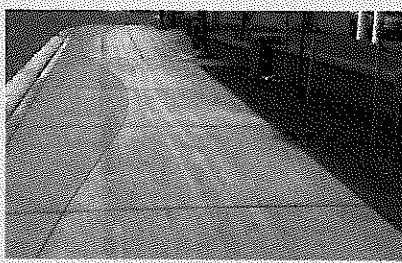
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.	Agree ✓	Disagree	If disagree, how would you change
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	Agree ✓	Disagree	If disagree, how would you change
AP3		Modular concrete pavers come in different shapes and colors.	Agree ✓	Disagree	If disagree, how would you change
AP4		A way to break up expanses of sidewalk.	Agree ✓	Disagree	If disagree, how would you change
AP5		Integrate paving with planting.	Agree ✓	Disagree	If disagree, how would you change
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	Agree ✓	Disagree	If disagree, how would you change
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	Agree ✓	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	✓		
C1	Signal progression at 35 miles per hour	✓		
C2	Turn lanes at 9th, 13th, and 15th			
C3	Gambell Street Underpass at 15th Avenue	✓		
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	✓		
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues		✓	
C6	Shared right of way with businesses	✓		
C7	Snow removal strategies for roadway and sidewalks	✓		
C8A	Enhanced pedestrian crossings	✓		
C8B	Mid-block pedestrian crossings	✓		
C8C I	Pedestrian signals/flashers	✓		
C8C II	Pedestrian-only phase (scramble)	✓		
C8C III	Pedestrian countdown signals	✓		
C8D	Pedestrian overpass		✓	
C9	Add on-street parking	✓		
C10	Establish Hyder as a primary SB route	✓		

Comments



Alternatives Recommended for Further Review



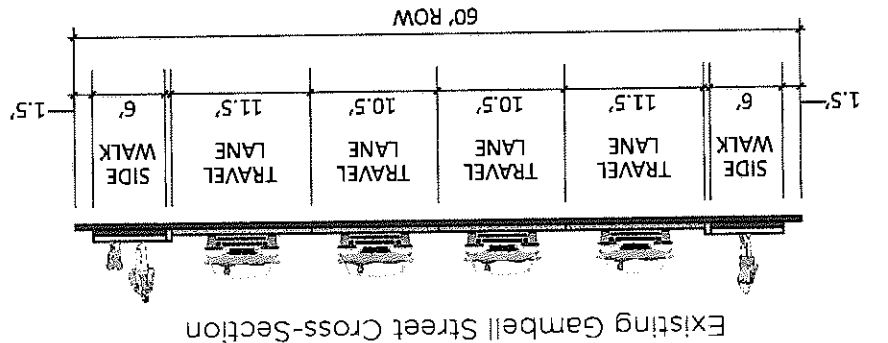
Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

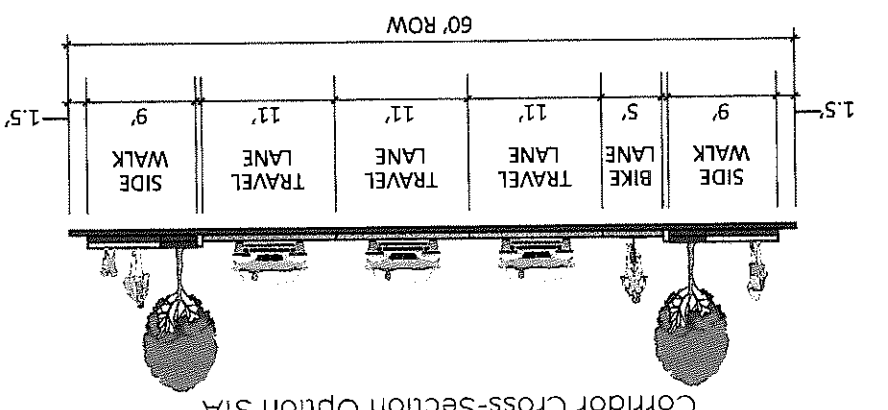


Cross-Section Options



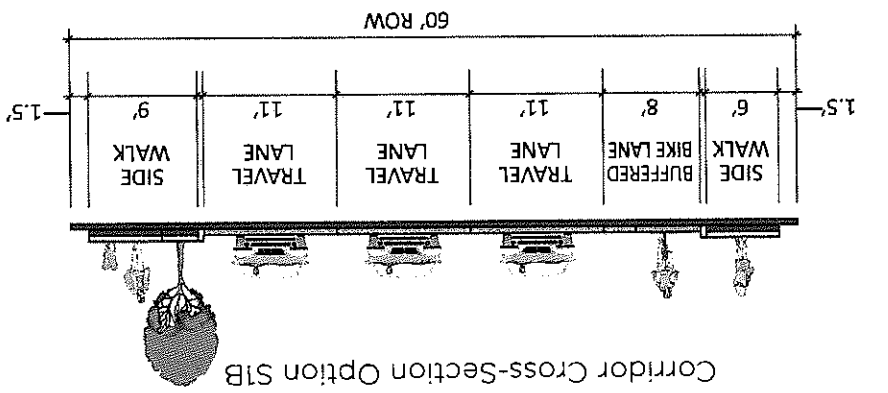
Existing Gambell Street Cross-Section

Rank					
Recommendation		Agree	Disagree	If disagree, what would you change?	



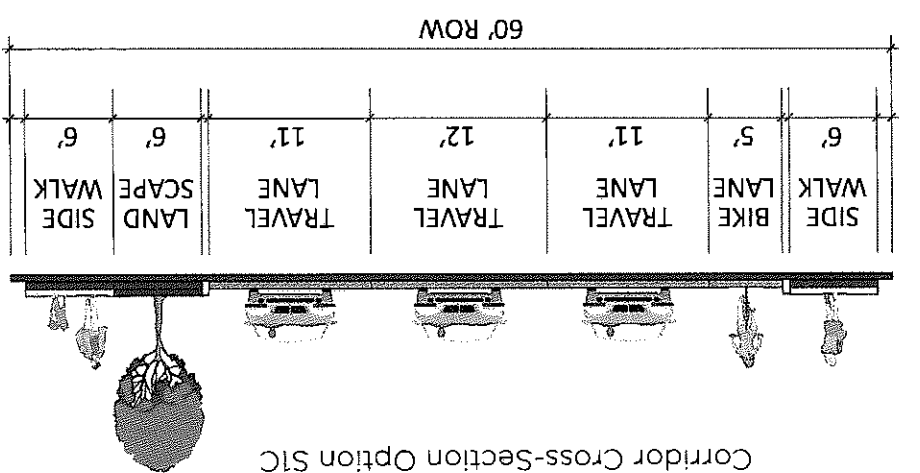
Corridor Cross-Section Option S1A

Rank	low				
Recommendation		Agree	Disagree	If disagree, what would you change?	



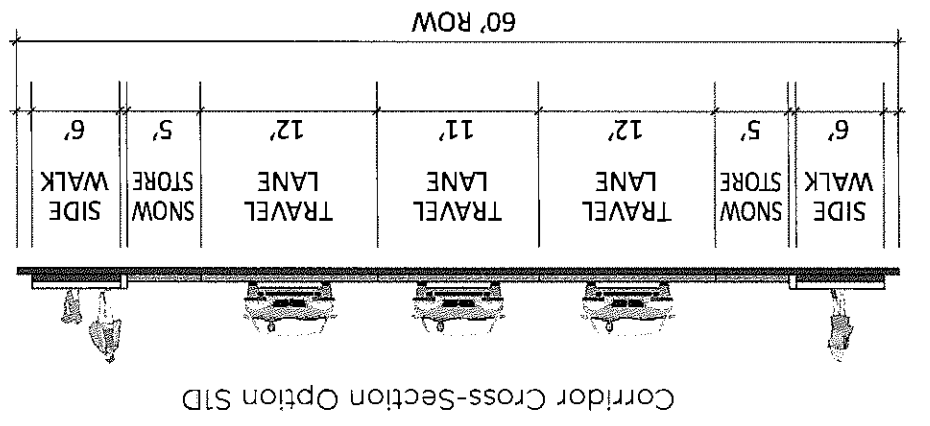
Corridor Cross-Section Option S1B

Rank					
Recommendation		Agree	Disagree	If disagree, what would you change?	



Corridor Cross-Section Option S1C

Rank					
Recommendation		Agree	Disagree	If disagree, what would you change?	Do not want



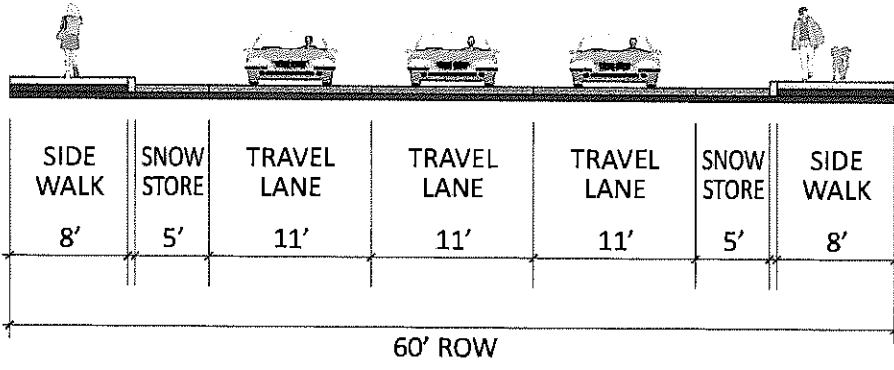
Corridor Cross-Section Option S1D

Rank					
Recommendation		Agree	Disagree	If disagree, what would you change?	X

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review

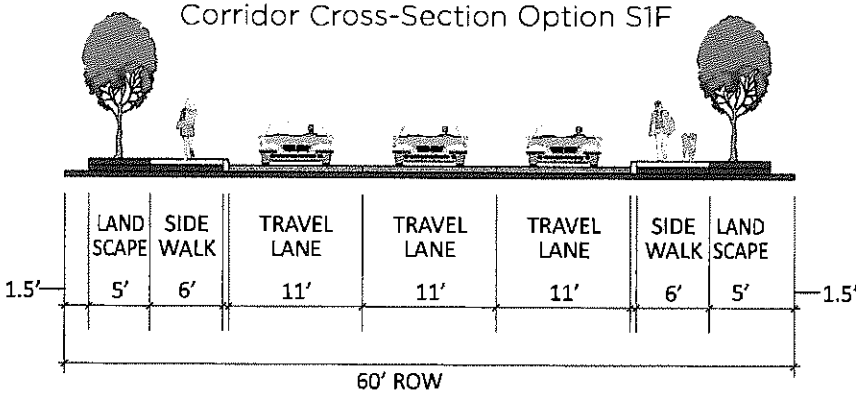
Cross-Section Options

Corridor Cross-Section Option S1E



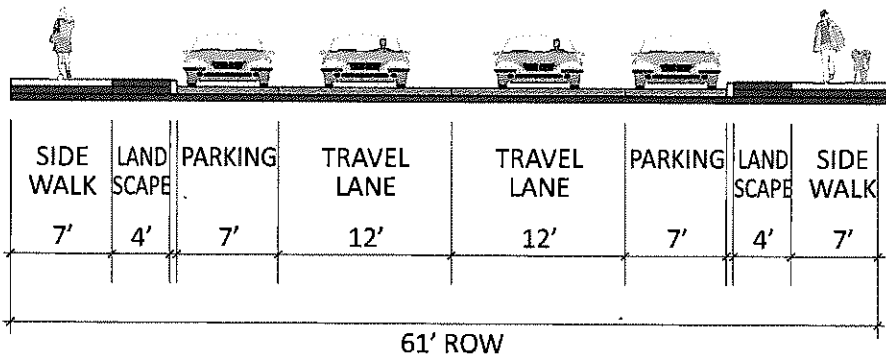
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓			

Corridor Cross-Section Option S1F



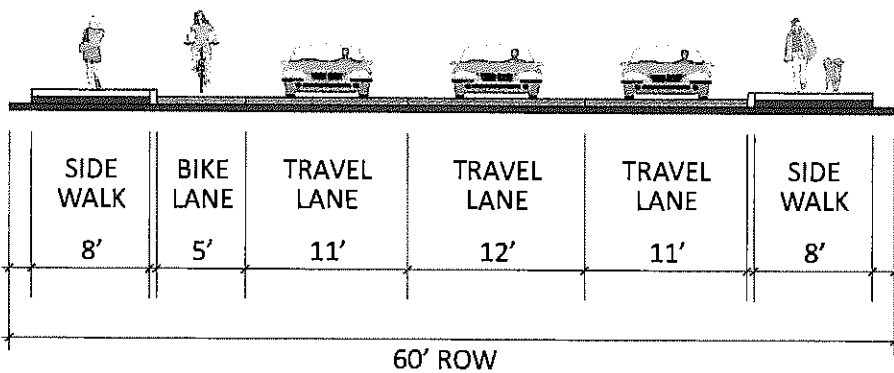
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Corridor Cross-Section Option S1H



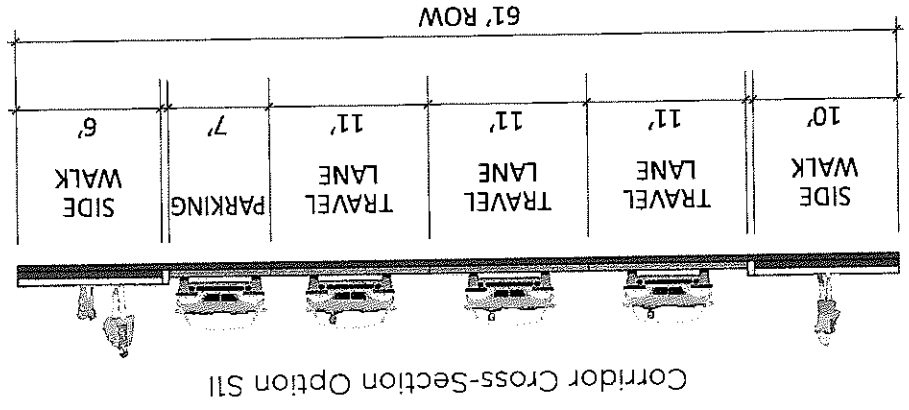
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	✓			

Alternatives Recommended for Further Review

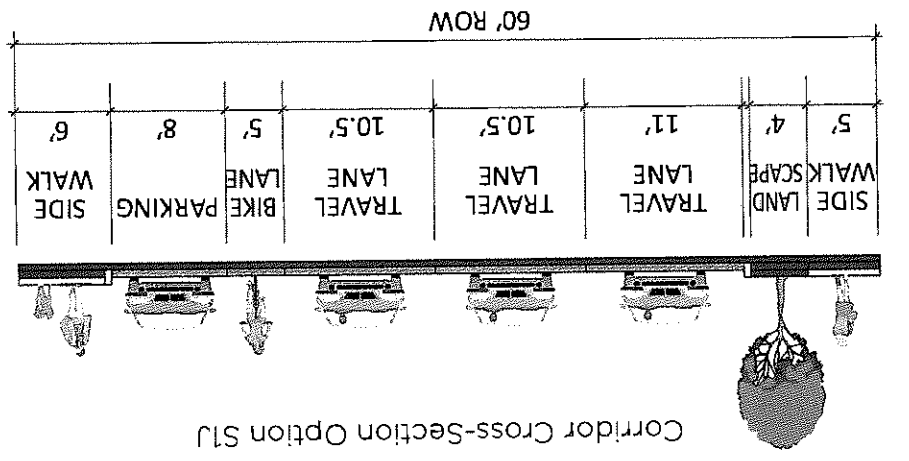
Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Cross-Section Options

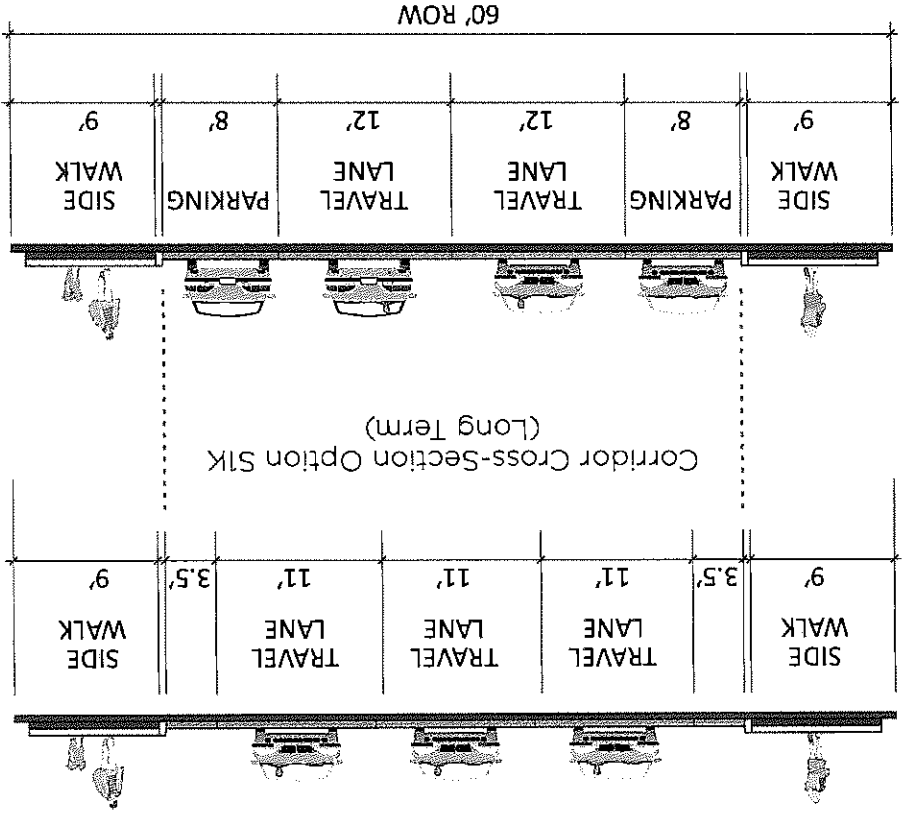


Rank					
	If disagree, what would you change?	Disagree	Agree	Recommendation	



Rank					
	If disagree, what would you change?	Disagree	Agree	Recommendation	

Corridor Cross-Section Option S1K (Short Term)



Rank					
	If disagree, what would you change?	Disagree	Agree	Recommendation	

- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AG1		Low-key corner gateway.	Agree	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree	Disagree	If disagree, how would you change
AG3		Modern artsy gateway.	Agree	Disagree	If disagree, how would you change
AG4		Grand overhead gateway.	Agree	Disagree	If disagree, how would you change
AG5		Subtle, artistic gateway.	Agree	Disagree	If disagree, how would you change
AG6		Artistic and unique gateway.	Agree	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree	Disagree	If disagree, how would you change

Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Illumination Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	Agree	Disagree	If disagree, how would you change
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	If disagree, how would you change
A13		Traditional cobra head luminaire.	Agree	Disagree	If disagree, how would you change
A14		Blend of modern and traditional street-scale light	Agree	Disagree	If disagree, how would you change
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	If disagree, how would you change
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	If disagree, how would you change



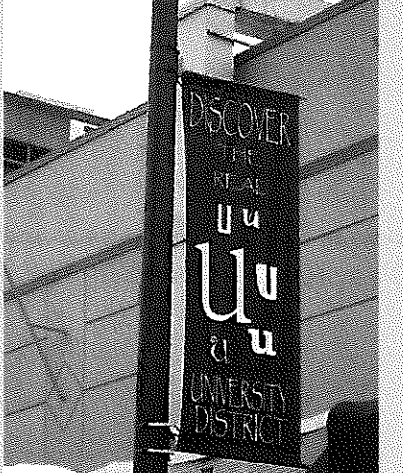
Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		Banners that advertise nearby businesses with a style consistent with Gambell Street.	Agree	Disagree	If disagree, how would you change
AB2		Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.	Agree	Disagree	If disagree, how would you change
AB3		Seasonal banners or banners promoting events.	Agree	Disagree	If disagree, how would you change

Comments





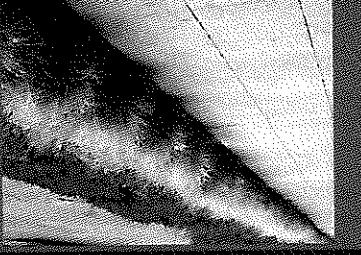


Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Landscaping Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	If disagree, how would you change
AL2		Raised planters, perhaps portable.	Agree	Disagree	If disagree, how would you change
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	If disagree, how would you change
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	If disagree, how would you change
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	If disagree, how would you change
AL6		Tree grates integrated into sidewalk paving patterns.	Agree	Disagree	If disagree, how would you change
AL7		Plant perennials and use for snow storage	Agree	Disagree	If disagree, how would you change
AL8		Hardscapes with small trees and retaining wall in Anchorage.	Agree	Disagree	If disagree, how would you change






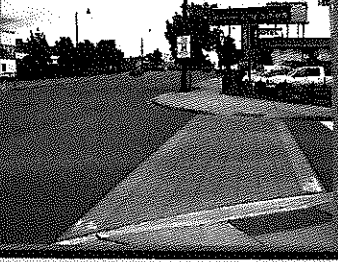
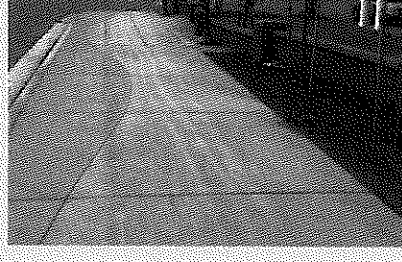
Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.		Disagree X	
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.		Disagree	
AP3		Modular concrete pavers come in different shapes and colors.		Disagree	
AP4		A way to break up expanses of sidewalk.		Disagree	
AP5		Integrate paving with planting.	Agree X	Disagree	
AP6		Stamped colored concrete paving at crosswalk to increase visibility.		Disagree	
AP7		Concrete sidewalk with curvilinear layout in Anchorage.		Disagree X	

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C1	Signal progression at 35 miles per hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C2	Turn lanes at 9th, 13th, and 15th	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C3	Gambell Street Underpass at 15th Avenue	<input type="checkbox"/>	<input type="checkbox"/>	
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C6	^{Dedicated} -Shared right of way with businesses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C7	Snow removal strategies for roadway and sidewalks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8A	Enhanced pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8B	Mid-block pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8C I	Pedestrian signals/flashers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	don't think it's necessary
C8C II	Pedestrian-only phase (scramble)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8C III	Pedestrian countdown signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8D	Pedestrian overpass	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	more to red
C9	Add on-street parking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C10	Establish Hyder as a primary SB route	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I'd put this on a yellow not notice the high level of required planning & coordination

Comments



Alternatives Recommended for Further Review



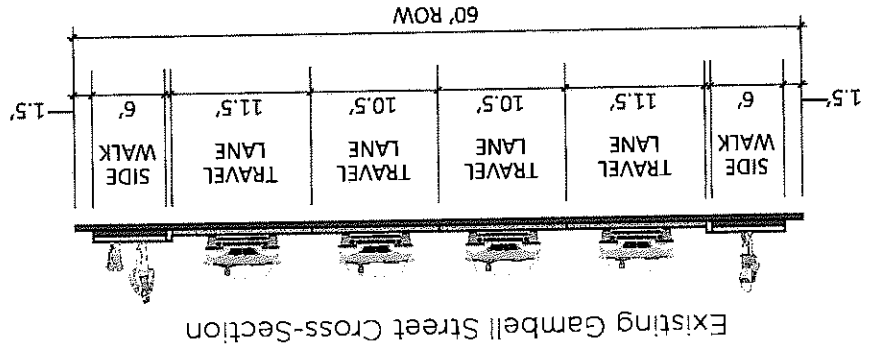
Alternatives Under Consideration for Further Review



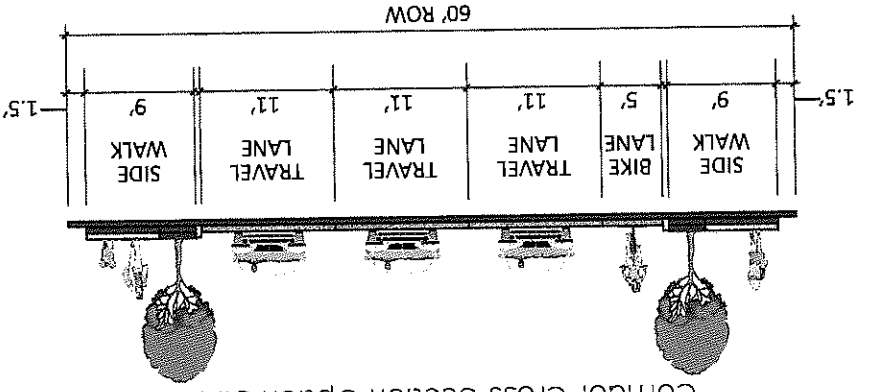
Alternatives NOT Recommended for Further Review



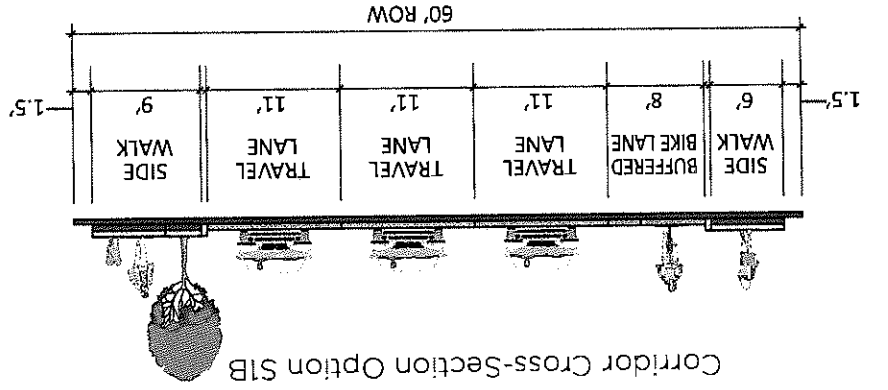
Cross-Section Options



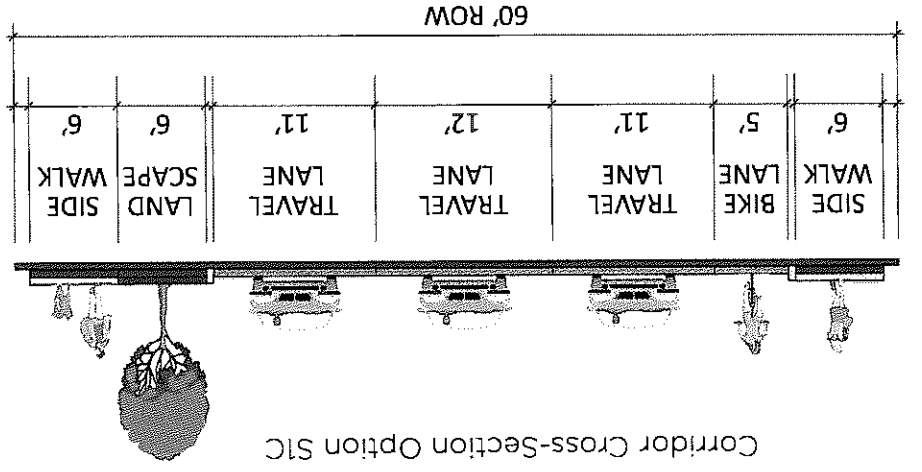
Existing Gambell Street Cross-Section



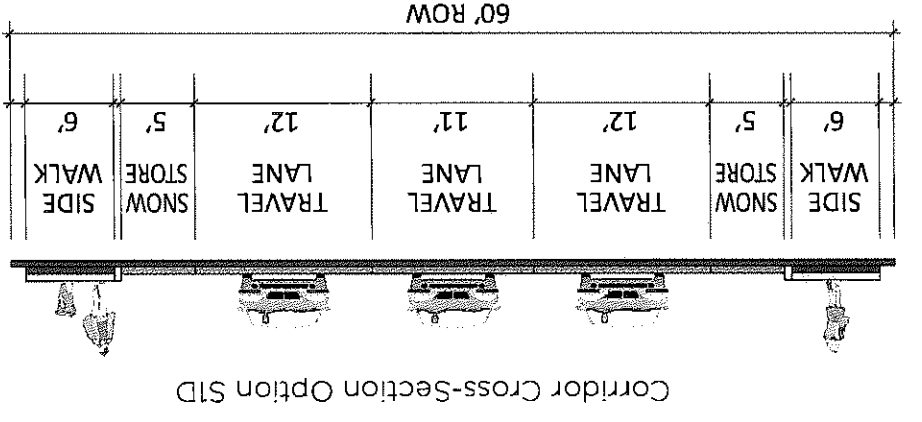
Corridor Cross-Section Option S1A



Corridor Cross-Section Option S1B



Corridor Cross-Section Option S1C



Corridor Cross-Section Option S1D

			X	
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

			X	
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

			X	
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

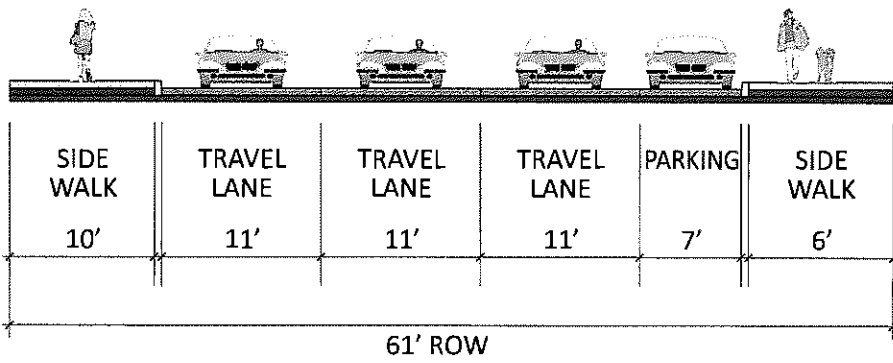
			X	
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

			X	
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank

Alternatives Recommended for Further Review
 Alternatives Under Consideration for Further Review
 Alternatives NOT Recommended for Further Review

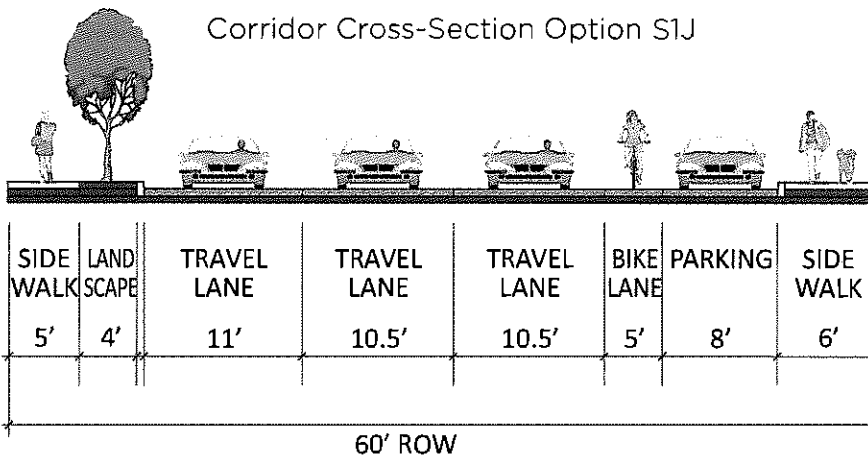
Cross-Section Options

Corridor Cross-Section Option S1I



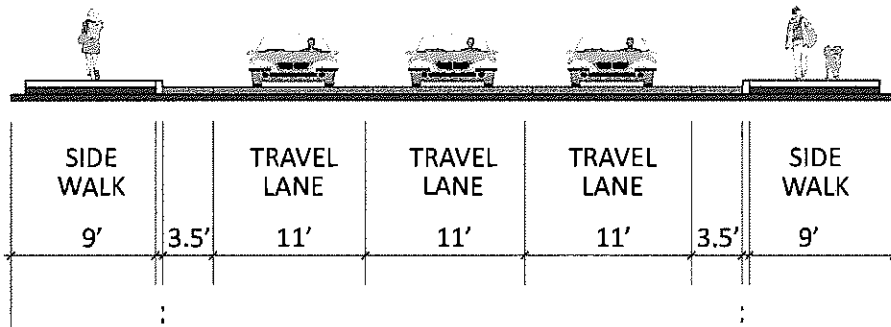
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1J



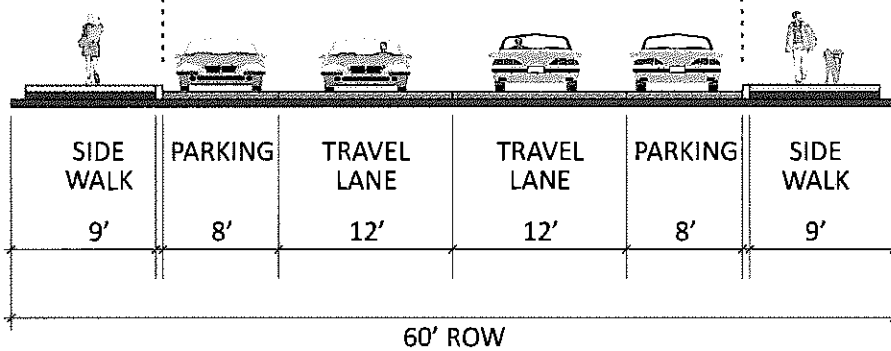
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			

Corridor Cross-Section Option S1K
(Short Term)



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	X			1

Corridor Cross-Section Option S1K
(Long Term)



Alternatives Recommended for Further Review

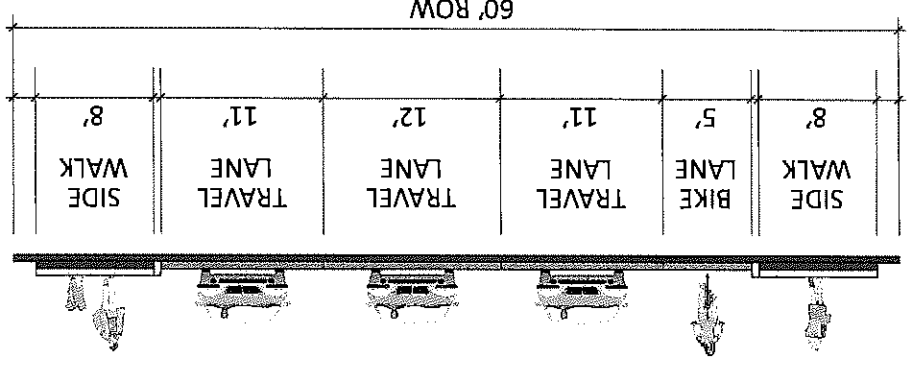
Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Alternatives Recommended for Further Review

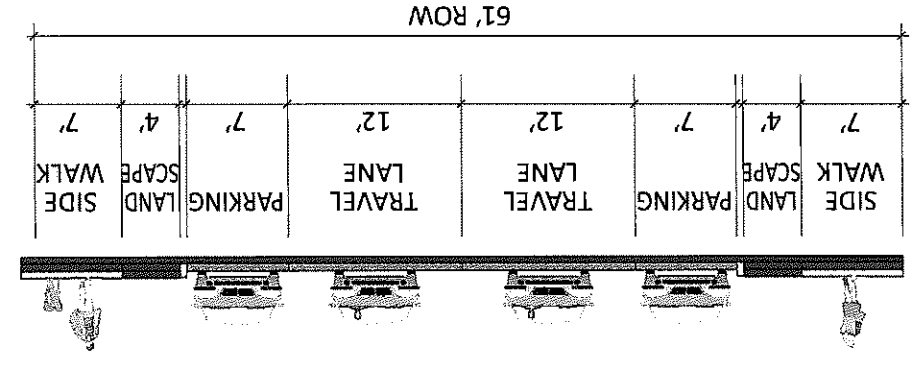
Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



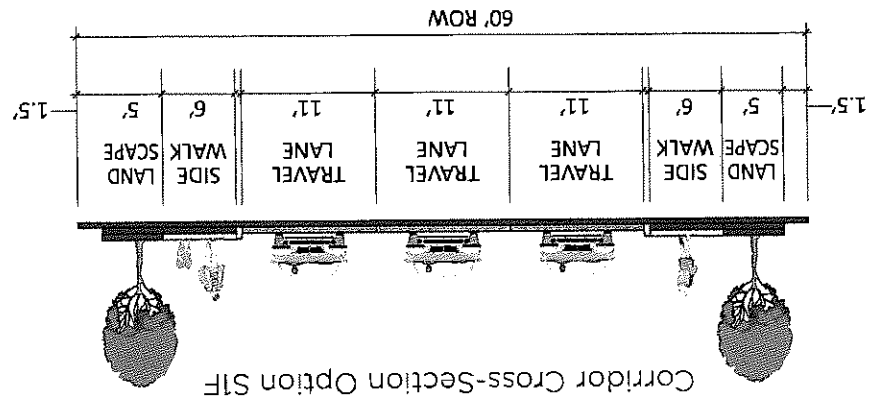
Corridor Cross-Section Option S1H

Rank					
Recommendation					
Agree					
Disagree			X		
If disagree, what would you change?					Red



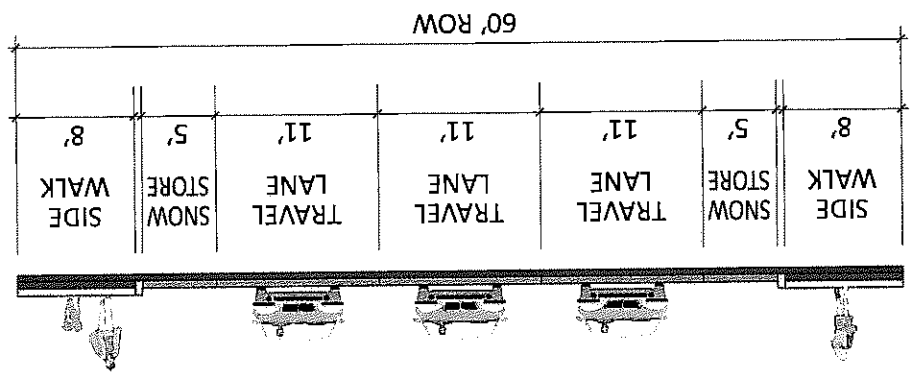
Corridor Cross-Section Option S1G

Rank					
Recommendation					
Agree			X		
Disagree					
If disagree, what would you change?					



Corridor Cross-Section Option S1F

Rank					
Recommendation					
Agree			X		
Disagree					
If disagree, what would you change?					



Corridor Cross-Section Option S1E

Rank					
Recommendation					
Agree			X		
Disagree					
If disagree, what would you change?					Red

Cross-Section Options

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AG1		Low-key corner gateway.	Agree <i>R</i>	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree <i>R</i>	Disagree	If disagree, how would you change
AG3		Modern artsy gateway.	Agree	Disagree <i>X</i>	If disagree, how would you change <i>Green & little's concept.</i>
AG4		Grand overhead gateway.	Agree	Disagree <i>X</i>	If disagree, how would you change <i>Green & little's design</i>
AG5		Subtle, artistic gateway.	Agree <i>R</i>	Disagree <i>X</i>	If disagree, how would you change <i>Red</i>
AG6		Artistic and unique gateway.	Agree <i>R</i>	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree <i>R</i>	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review






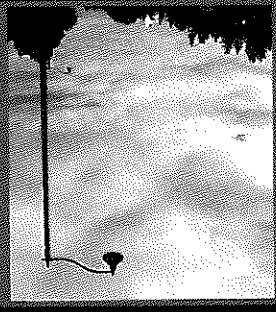


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	Agree	Disagree	
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	
A13		Traditional cobra head luminaire.	Agree	Disagree	
A14		Blend of modern and traditional street-scale light	Agree	Disagree	
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	undo
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	even better







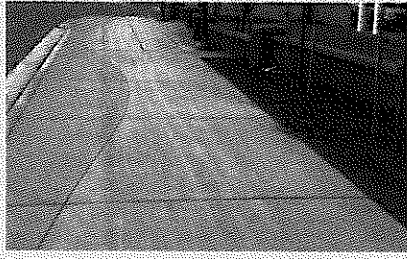
Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Pavement Options

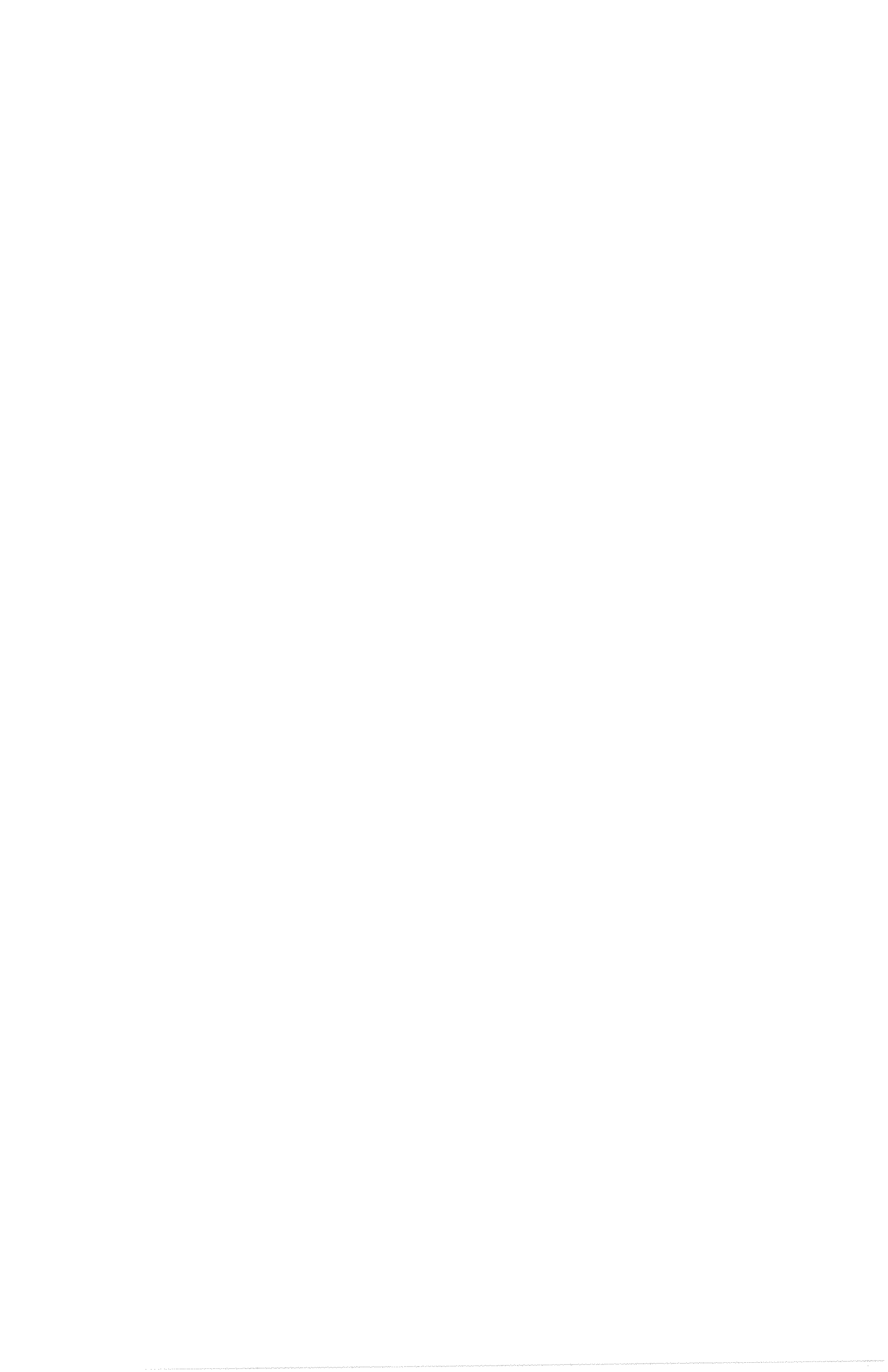
Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.		X	Red pavers don't work here.
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.			
AP3		Modular concrete pavers come in different shapes and colors.			
AP4		A way to break up expanses of sidewalk.			Really like texture
AP5		Integrate paving with planting.		X	Pavers don't work
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	X		
AP7		Concrete sidewalk with curvilinear layout in Anchorage.			

Comments



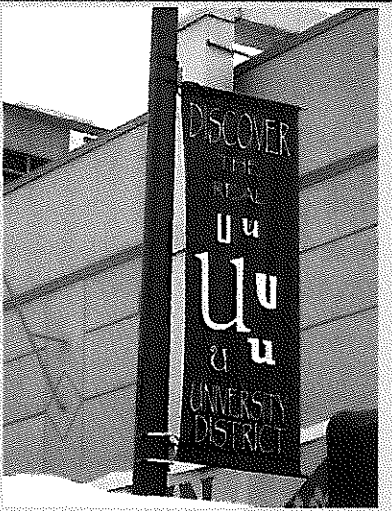
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AB1		Banners that advertise nearby businesses with a style consistent with Gambell Street.	X		
AB2		Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.	X		
AB3		Seasonal banners or banners promoting events.		X	Should be green

Comments



Alternatives Recommended for Further Review





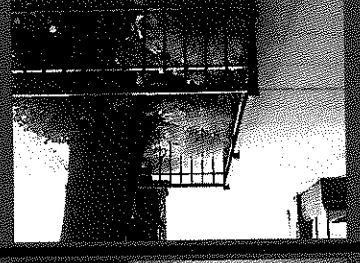
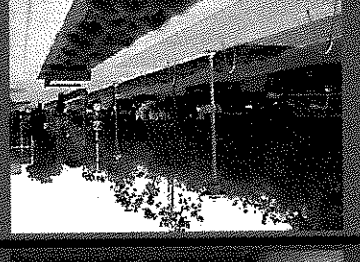
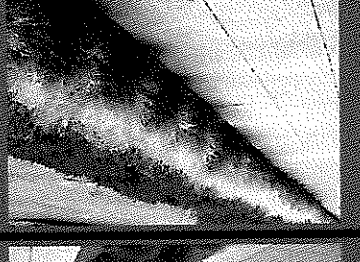


Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Landscaping Options

Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	
AL2		Raised planters, perhaps portable.	Agree	Disagree	I do like the cement work on them.
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	
AL6		Tree grates integrated into sidewalk paving patterns.	Agree	Disagree	Real - unusable in long run up the
AL7		Plant perennials and use for snow storage	Agree	Disagree	Don't know
AL8		Hardscape with small trees and retaining wall in Anchorage.	Agree	Disagree	More to your point for further review

Comments

Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

Corridor Options

Please provide your thoughts on this option for Gambell Street

Option	Description	Agree	Disagree	If disagree, how would you change
C0	Reducing the number of travel lanes from 4 to 3 lanes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C1	Signal progression at 35 miles per hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C2	Turn lanes at 9th, 13th, and 15th	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C3	Gambell Street Underpass at 15th Avenue	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C4	Gambell Parking Structure at 16th Avenue with connections to sports complex	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C5	Street dead-ending onto Gambell at 8th, 11th, 12th, and/or 14th Avenues	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C6	Shared right of way with businesses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C7	Snow removal strategies for roadway and sidewalks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8A	Enhanced pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8B	Mid-block pedestrian crossings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8C I	Pedestrian signals/flashers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8C II	Pedestrian-only phase (scramble)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8C III	Pedestrian countdown signals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C8D	Pedestrian overpass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C9	Add on-street parking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C10	Establish Hyder as a primary SB route	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments

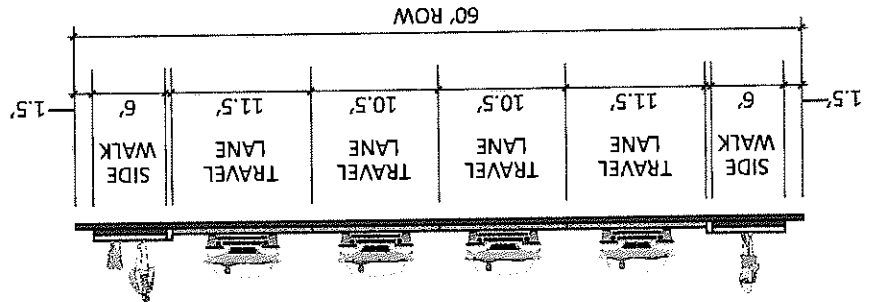
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

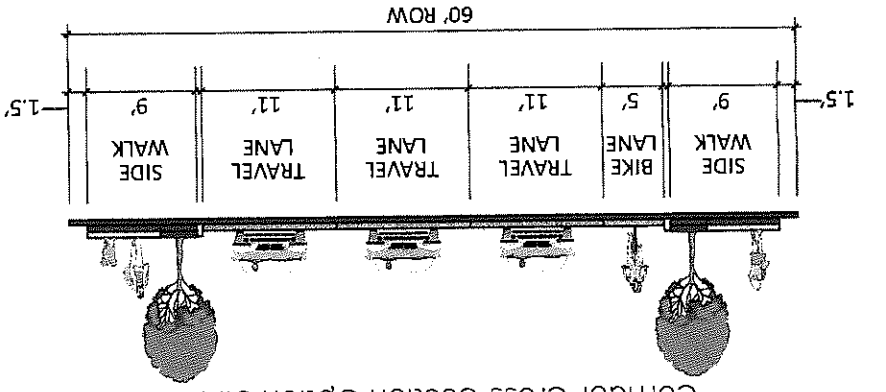


Cross-Section Options



Existing Gambell Street Cross-Section

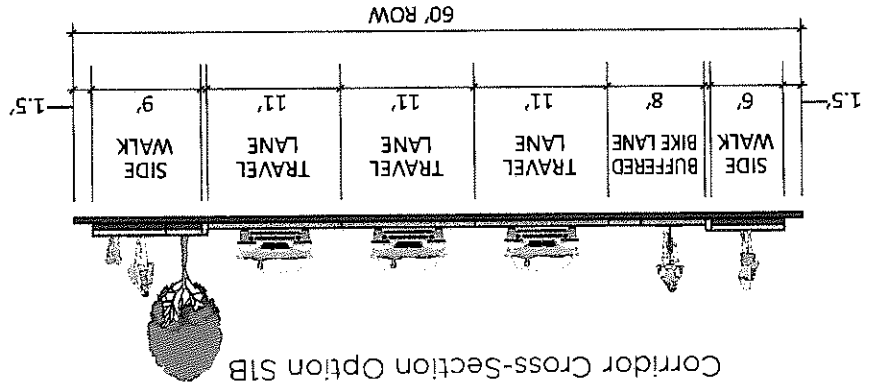
Recommendation	Agree	Disagree		
	/			
Rank				
	If disagree, what would you change?			



Corridor Cross-Section Option S1A

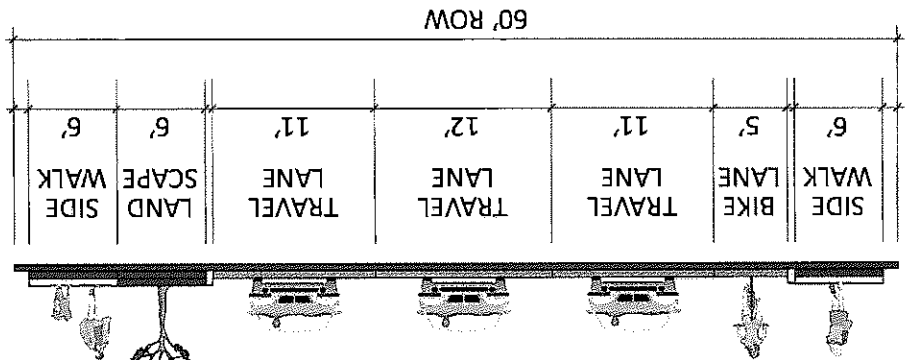
Recommendation	Agree	Disagree		
	X			
Rank				
	If disagree, what would you change?			

red. cur storage



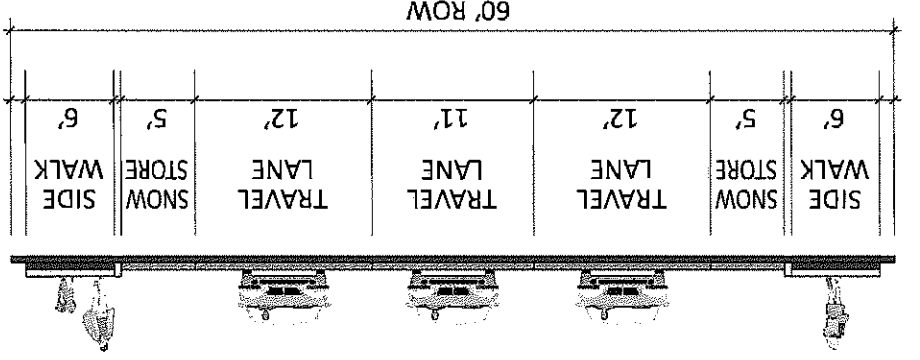
Corridor Cross-Section Option S1B

Recommendation	Agree	Disagree		
	/			
Rank				
	If disagree, what would you change?			



Corridor Cross-Section Option S1C

Recommendation	Agree	Disagree		
	/			
Rank				
	If disagree, what would you change?			



Corridor Cross-Section Option S1D

Recommendation	Agree	Disagree		
	/			
Rank				
	If disagree, what would you change?			

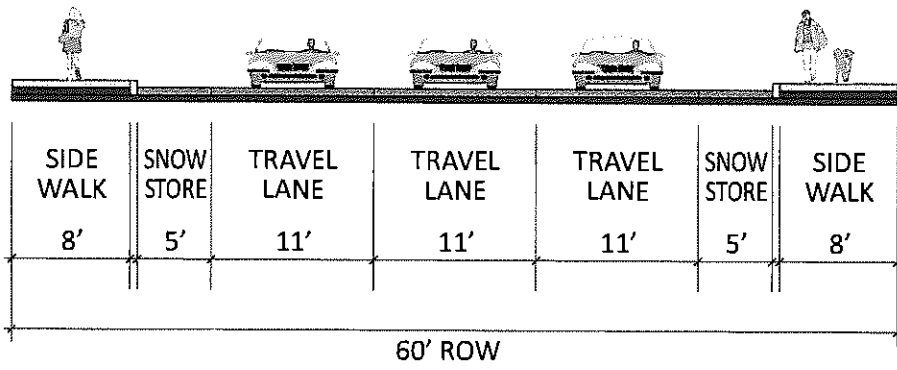
Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

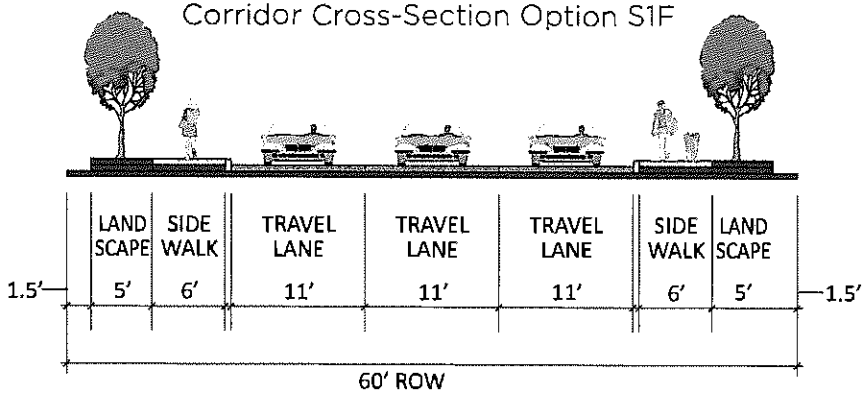
Cross-Section Options

Corridor Cross-Section Option S1E



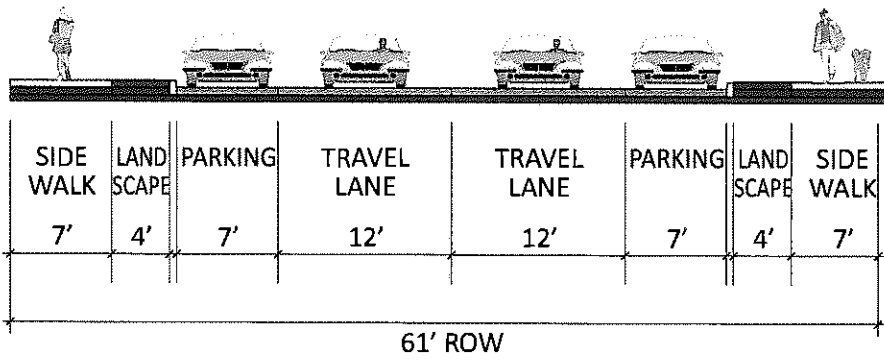
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		/	make green	

Corridor Cross-Section Option S1F



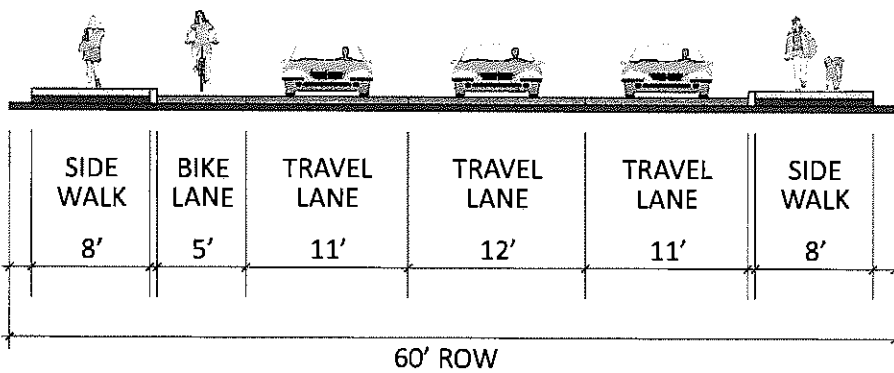
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	/			

Corridor Cross-Section Option S1G



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	/			

Corridor Cross-Section Option S1H



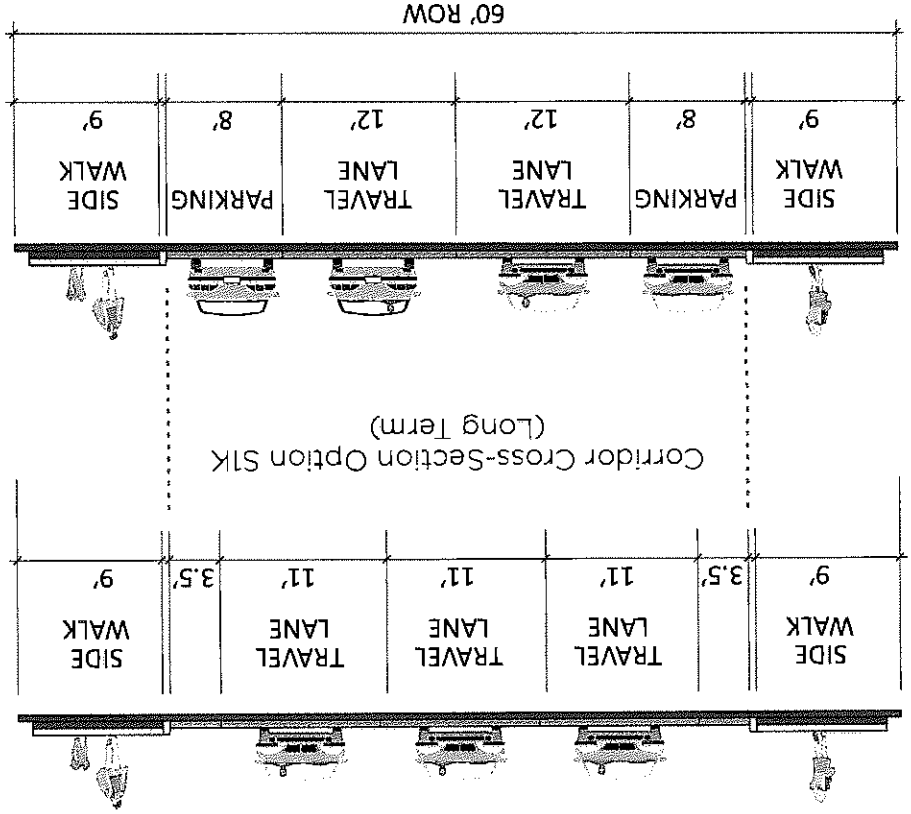
Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
		/	red. not consistent for bikes	

Alternatives Recommended for Further Review

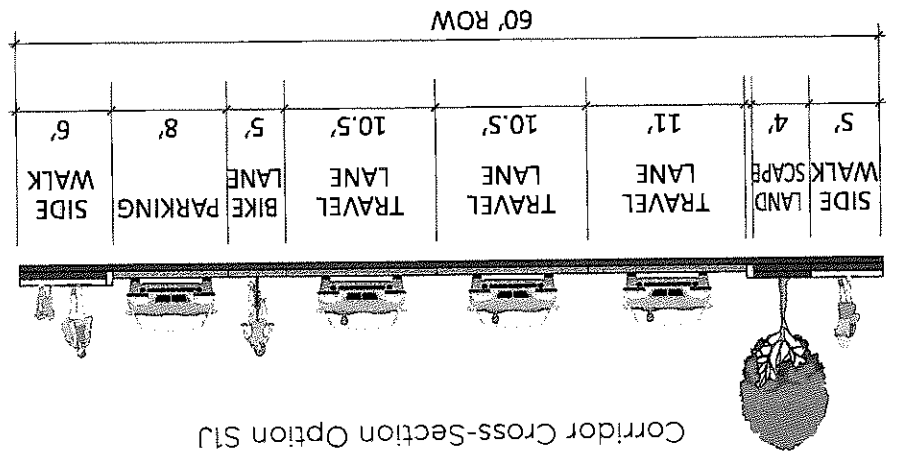
Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review

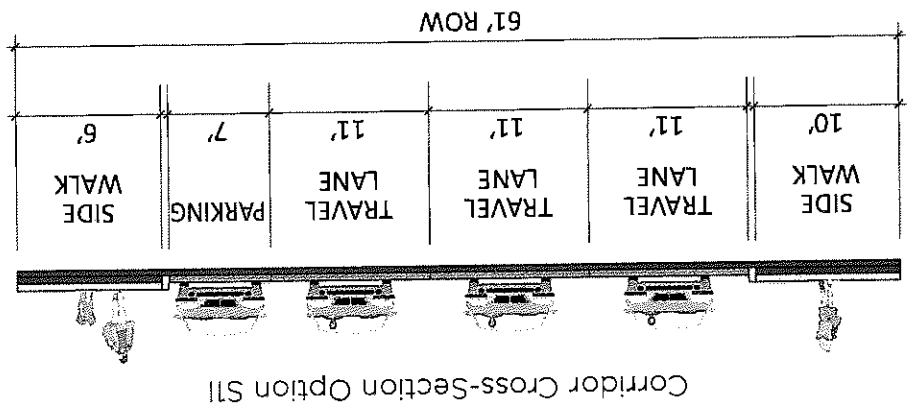
- Alternatives Recommended for Further Review
- Alternatives Under Consideration for Further Review
- Alternatives NOT Recommended for Further Review



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		







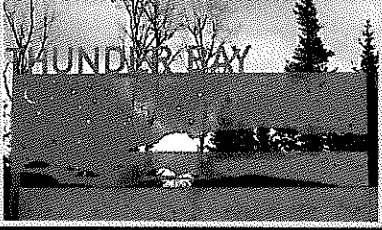


Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		



Recommendation	Agree	Disagree	If disagree, what would you change?	Rank
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Cross-Section Options

Gateway Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AG1		Low-key corner gateway.	Agree /	Disagree	If disagree, how would you change
AG2		Downtown, large-scale gateway.	Agree /	Disagree	If disagree, how would you change
AG3		Modern artsy gateway.	Agree /	Disagree	If disagree, how would you change
AG4		Grand overhead gateway.	Agree /	Disagree	If disagree, how would you change
AG5		Subtle, artistic gateway.	Agree	Disagree /	If disagree, how would you change <i>Red. reminds me of a mesh wastebasket</i>
AG6		Artistic and unique gateway.	Agree /	Disagree	If disagree, how would you change
AG7		Two pillars gateway.	Agree /	Disagree	If disagree, how would you change

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Illumination Options




Please provide your thoughts on this option for Gambell Street

Option	Photo	Description	Agree	Disagree	If disagree, how would you change
A11		Keep existing light standards where possible and add lower pedestrian lights.	Agree	Disagree	
A12		Add street-scale lights and the ability to string holiday lights to them.	Agree	Disagree	
A13		Traditional cobra head luminaire.	Agree	Disagree	
A14		Blend of modern and traditional street-scale light.	Agree	Disagree	
A15		High intensity street light standards vs. street-scale lights.	Agree	Disagree	For
A16		Modern, common ornamental light used within Anchorage.	Agree	Disagree	green - would implement consistency w/ rest

Comments

Alternatives Recommended
 Alternatives Under Consideration
 Alternatives NOT Recommended for Further Review

Banner Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
AB1		<p>Banners that advertise nearby businesses with a style consistent with Gambell Street.</p>	<p>Agree</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB2		<p>Art attached to light or utility pole ("Sponsored" by adjacent buildings). Could also use flower baskets.</p>	<p>Agree</p>	<p>Disagree</p>	<p>If disagree, how would you change</p>
AB3		<p>Seasonal banners or banners promoting events.</p>	<p>Agree</p>	<p>Disagree</p>	<p>If disagree, how would you change</p> <p><i>Red</i></p>

Comments

Alternatives Recommended for Further Review

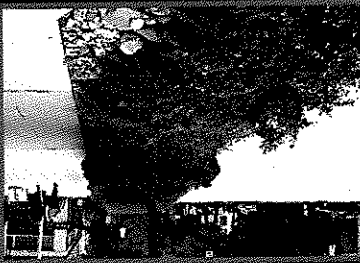






Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Landscaping Options

Please provide your thoughts on this option for Gambell Street

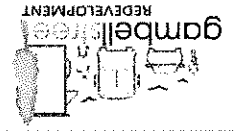
Option	Photo	Description	Agree	Disagree	If disagree, how would you change
AL1		Include materials like rock, gravel and a variety of plant sizes/types.	Agree	Disagree	
AL2		Raised planters, perhaps portable.	Agree	Disagree	
AL3		Protect plantings with fencing that reflects "theme" selected for Gambell Street.	Agree	Disagree	
AL4		Low, simple plants integrated into sidewalk and paving.	Agree	Disagree	
AL5		Separate sidewalk from street with landscaping.	Agree	Disagree	
AL6		Tree grates integrated into sidewalk paving patterns.	Agree	Disagree	<i>Red, try to make</i>
AL7		Plant perennials and use for snow storage	Agree	Disagree	<i>Red</i>
AL8		Hardscapes with small trees and retaining wall in Anchorage.	Agree	Disagree	

Comments








Alternatives Recommended for Further Review

Alternatives Under Consideration for Further Review

Alternatives NOT Recommended for Further Review



Pavement Options

Option	Photo	Description	Please provide your thoughts on this option for Gambell Street		
			Agree	Disagree	If disagree, how would you change
AP1		Use of different paving materials—labor intensive and expensive.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red. See given comments
AP2		Use a mix of paving shapes, colors for interest with less expensive concrete.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AP3		Modular concrete pavers come in different shapes and colors.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AP4		A way to break up expanses of sidewalk.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AP5		Integrate paving with planting.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red.
AP6		Stamped colored concrete paving at crosswalk to increase visibility.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
AP7		Concrete sidewalk with curvilinear layout in Anchorage.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red. Prone to cracking

Comments



Alternatives Recommended for Further Review



Alternatives Under Consideration for Further Review



Alternatives NOT Recommended for Further Review

Appendix H Most Promising Alternatives
Summary Comments from Day
3

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Cross-Section Options

Comment #	Agree?		Please indicate which should move to the red and which should move to the green.								Agree?													
	S1K		S1A		S1D		S1E		S1H		Existing		S1B		S1C		S1F		S1G		S1I		S1J	
	Yes	No	Green	Red	Green	Red	Green	Red	Green	Red	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	1			1		1					1		1		1				1		1			1
2	1		1		1		1		1		1		1		1		1		1		1		1	
3	1			1		1		1		1		1		1		1		1		1		1		1
4	1			1		1			1		1		1	1	1		1		1	1	1			1
5			1				1																	
6	1			1					1		1		1		1		1		1		1		1	
7				1		1			1															
8			1																					
9											1						1		1					
10	1		1			1		1		1					1								1	
11	1			1		1		1		1		1		1		1		1		1		1		1
12	1			1		1		1		1		1		1		1		1		1		1		1
Total	8	0	4	7	2	6	4	5	2	6	8	0	6	1	8	0	7	0	6	1	7	0	6	2
% Yes	100%		36%		25%		44%		25%		100%		86%		100%		100%		86%		100%		75%	
Rank	1		5		6		4		6		1		2		1		1		2		1		3	

Comment #

S1K

(7) I think the trace lanes should be wider and sacrifice a bit on the show storage 3.5 ft. sections.
Show storage will go into the 9 the sidewalk a bit anyway.

S1A

(1) Southbound potential recommendation.
(2) No bike lanes.

S1D

(1) Southbound potential recommendation.
(2) No bike lanes.
(7) This will narrow down the lanes at the intersections anyway and this gives wider travel lanes and more room for snow storage

S1E

S1H

(2) No bike lanes.

Existing

S1B

(4) Like wide-bike lanes and landscaping.

S1C

S1F

S1G

S1I

S1J

(1) Engage community to get their input.

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Gateway Options

Comment # #	Agree?		Please indicate which should move to green and which should move to the red.		Agree?									
	AG6		AG5		AG1		AG2		AG3		AG4		AG7	
	Yes	No	Green	Red	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	1			1	1		1		1		1		1	
2	1		1		1		1		1		1		1	
3	1		1		1		1		1			1		1
4	1		1		1		1		1		1		1	
5											1			
6					1		1		1			1		1
7		1		1										
8														
9	1		1		1		1		1		1			1
10	1			1										
11	1			1	1		1			1		1		1
12	1			1	1		1		1		1		1	1
Total	8	1	4	5	8	0	8	0	7	1	6	3	5	3
% Yes	89%		44%		100%		100%		88%		67%		63%	
Rank	2		6		1		1		3		4		5	

Comment #

AG6

AG5

- (1) Should have 2 options in different areas.
- (2) At entrances to the neighborhood: Gambell and 5th/6th; 15th and Gambell
- (4) Could be okay though I don't like the design in the photo.

AG1

AG2

AG3

AG4

AG7

- (9) Consider pillars without connection.

No particular type:

I would like to support the existing alternative project at Fairview. Add "Welcome to Fairview" sign.

All gateways must accommodate trucks.

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Illumination Options

		Agree?					Please indicate which should move to the green and which should move to the red.				Agree?	
Comment	AI1		AI2		AI4		AI5		AI6		AG1	
#	Yes	No	Yes	No	Yes	No	Green	Red	Green	Red	Yes	No
1	1		1		1			1		1	1	
2		1	1		1			1	1		1	
3	1					1		1		1	1	
4	1		1		1			1	1		1	
5			1		1				1			
6	1					1		1		1		1
7									1			
8												
9	1		1		1		1		1			1
10	1						1			1		
11	1		1							1	1	
12	1		1		1			1		1	1	
Total	8	1	7	0	6	2	2	6	5	6	6	2
% Yes	89%		100%		75%		25%		45%		75%	
Rank	2		1		3		5		4		3	

Comment #

A1

(2) Put in signature lights for sidewalks

A12

A14

(3) Too expensive

(6) DOT won't accept

A15

A16

(2) Make it modern

(6) Green for between high lights

A13

No particular type:

(2) I would love to see the ability to plug in Christmas lights incorporated into any of the choices.

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Banner Options

					Please indicate which should move to the red and which should move to the green.	
	Agree?					
Comment	AB1		AB2		AB3	
#	Yes	No	Yes	No	Green	Red
1	1		1			1
2	1		1		1	
3	1			1		1
4	1		1			1
5	1				1	
6	1		1		1	
7						
8						
9	1		1		1	
10					1	
11	1		1		1	
12	1		1			1
Total	9	0	7	1	6	4
% Yes	100		87.5		60	
Rank	1		2		3	

Comment #

AB1

AB2

(3) I like the seasonal banners.

(5) Sounds looks rather educational. Consistent pattern better.

AB3

(2) Run by the F.B.A.

(7) Maintenance nightmare.

(8) Needs to meet historic precedent.

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Landscaping Options

Comment #	Agree?						Please indicate which should move to the green and which should move to the red.						Agree?			
	AL1		AL4		AL5		AL6		AL7		AL8		AL2		AL3	
	Yes	No	Yes	No	Yes	No	Green	Red	Green	Red	Green	Red	Yes	No	Yes	No
1	1			1	1			1		1		1			1	
2	1		1		1		1		1		1		1		1	
3		1	1			1		1	1			1		1		1
4	1		1		1			1		1		1		1		1
5				1	1		1				1		1			
6		1		1		1		1		1	1		1		1	
7							1		1		1					
8																
9	1		1			1	1		1		1		1		1	
10								1	1			1				
11	1		1		1			1				1		1		
12	1		1			1		1		1		1		1		1
Total	6	2	6	3	5	4	4	7	5	4	3	8	9	0	7	0
% Yes	75%		67%		56%		36%		56%		27%		100%		100%	
Rank	2		3		4		5		4		6		1		1	

Comment #

AL1

(3) Ends up looking bad after time.

AL4

(1) Plants should not be next to street.

(3) Use perennials.

(5) Make lighter for more visibility. Do not put down this kind of pavement.

AL5

(9) Should be on property outside row.

AL6

(9) Should be on property outside row.

(11) Unworkable in conditions up here.

AL7

(4) Seems practical, but has an ongoing maintenance cost.

AL8

(1) Southbound this would be great.

(4) Retaining walls are hangouts for street drunks, look at SE Correi at 13 and Gambell for an example.

(5) Don't put walls inside - only on roadside for pedestrian safety and comfort.

AL2

(11) I do like the cement on this one.

AL3

Gambell Street Redevelopment and Implementation Plan May 23, 2013

Pavement Options

Comment #	Agree?						Please indicate which should move to the green and which should move to the red.						Agree?	
	AP2		AP4		AP6		AP1		AP5		AP7		AP3	
	Yes	No	Yes	No	Yes	No	Green	Red	Green	Red	Green	Red	Yes	No
1		1	1		1			1		1	1		1	
2	1		1		1				1	1	1		1	
3	1		1		1			1		1	1		1	
4	1		1		1			1		1		1	1	
5	1			1	1			1			1			1
6	1		1		1		1			1	1		1	
7							1			1	1			
8														
9	1		1		1		1		1		1		1	
10								1	1			1		
11					1			1		1				
12	1		1		1			1		1		1	1	
Total	7	1	7	1	9	0	3	7	3	7	7	3	7	1
% Yes	88%		88%		100%		30%		30%		70%		88%	
Rank	2		2		1		4		4		3		2	

Comment #

AP2

(5) If it works with planters and if pavement stays wide enough.

AP4

(11) Like this texture.

AP6

(5) But half the year it won't show up. Lights are much more important.

AP1

(5) More difficult for ice and snow removal and clean-up in the spring.

AP5

AP7

(12) Prone to cracking.

AP3

No particular type:

(3) Maintenance is important between plowing in the winter and just regular use whatever last the longest is the best.

(8) No vegetation unless whoever is responsible to take care of it is notified and approves. Keep everything to the left.

Appendix I Analysis of 3 Lane Cross-
Section



Gambell Street Redevelopment Plan: Preferred Alternative and Analysis

Gambell Street Redevelopment and Implementation Plan

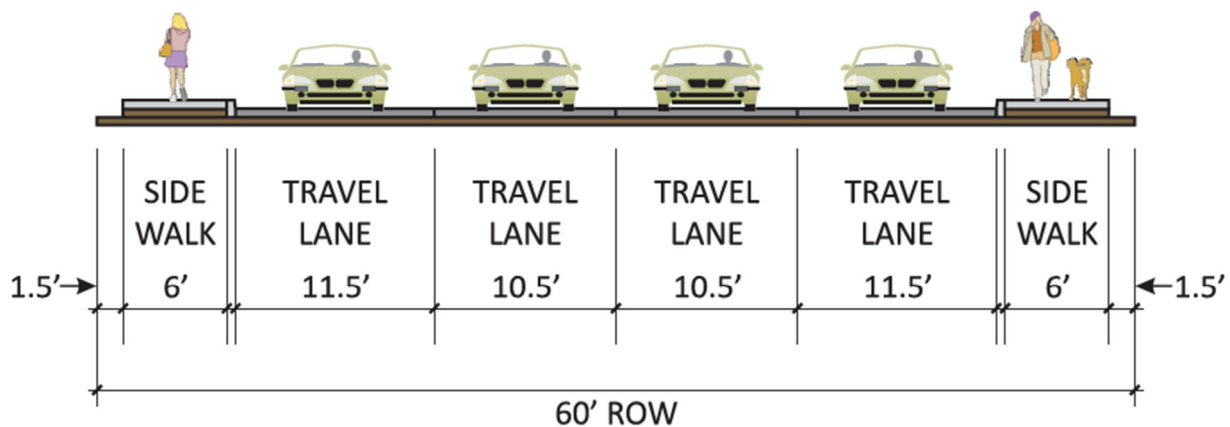
Date: June 10, 2013 Project #:13489
 To: Paul Fuhs, Fairview Business Association
 From: Kelly Laustsen; Andy Daleiden, PE; Bob Kniefel, PE; Gary Katsion, PE; and Marc Butorac, PE, PTOE; (Kittelsohn & Associates, Inc.) / Jim Potts, PE and Jordan Engel (CH2M Hill)
 cc: Project Management Team (PMT)

This memorandum analyzes the impacts of converting Gambell Street from four to three lanes between 3rd and 15th Avenues.

BACKGROUND

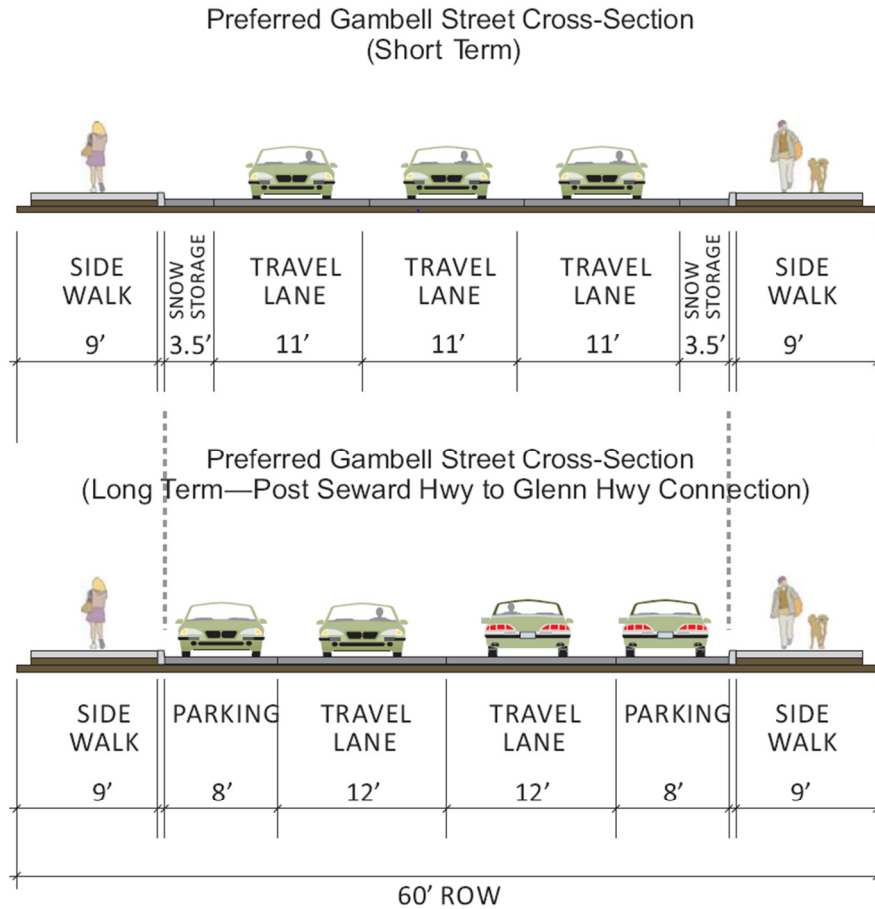
Gambell Street has a 60' right-of-way (ROW) that is constrained by businesses and parking lots to both the east and west. The existing cross-section is shown in Exhibit 1.

Exhibit 1: Existing Cross-Section



As seen in the exhibit, there is currently no allowance made for snow storage and little separation between pedestrians and vehicles. In order to improve the streetscape of the roadway, the Gambell Street Redevelopment and Implementation Plan has assessed other potential cross-sections. Based on

Exhibit 2: Preferred Streetscape Cross-Section Alternative



Advantages of the preferred cross-section include:

- Provides snow storage in 3.5 foot shoulders and the portion of sidewalks closest to the curb allowing adequate pedestrian connectivity and utilization of all three vehicular travel lanes during winter time conditions versus the 3 out of 4 currently utilized due to the lack of snow storage;
- Maintains long-term flexibility (i.e., conversion to a two-way street with on-street parking as part of the Seward Highway to Glenn Highway Connection project);
- Changes the pedestrian and vehicular environment to better match the needs of the business district, and allows additional aesthetic enhancements to occur along Gambell Street; and
- Provides sufficient space for pedestrians year round, addresses ADA deficiencies, eliminates splash conflicts with outside vehicular lanes, and reduces crossing distances and exposure for pedestrians, bicycles, and vehicles.

In order to ensure that a three-lane cross section also provides for adequate vehicular capacity on the corridor, an analysis was performed to assess the impacts on vehicular operations. The results are discussed in the following sections.

INTERSECTION OPERATIONS

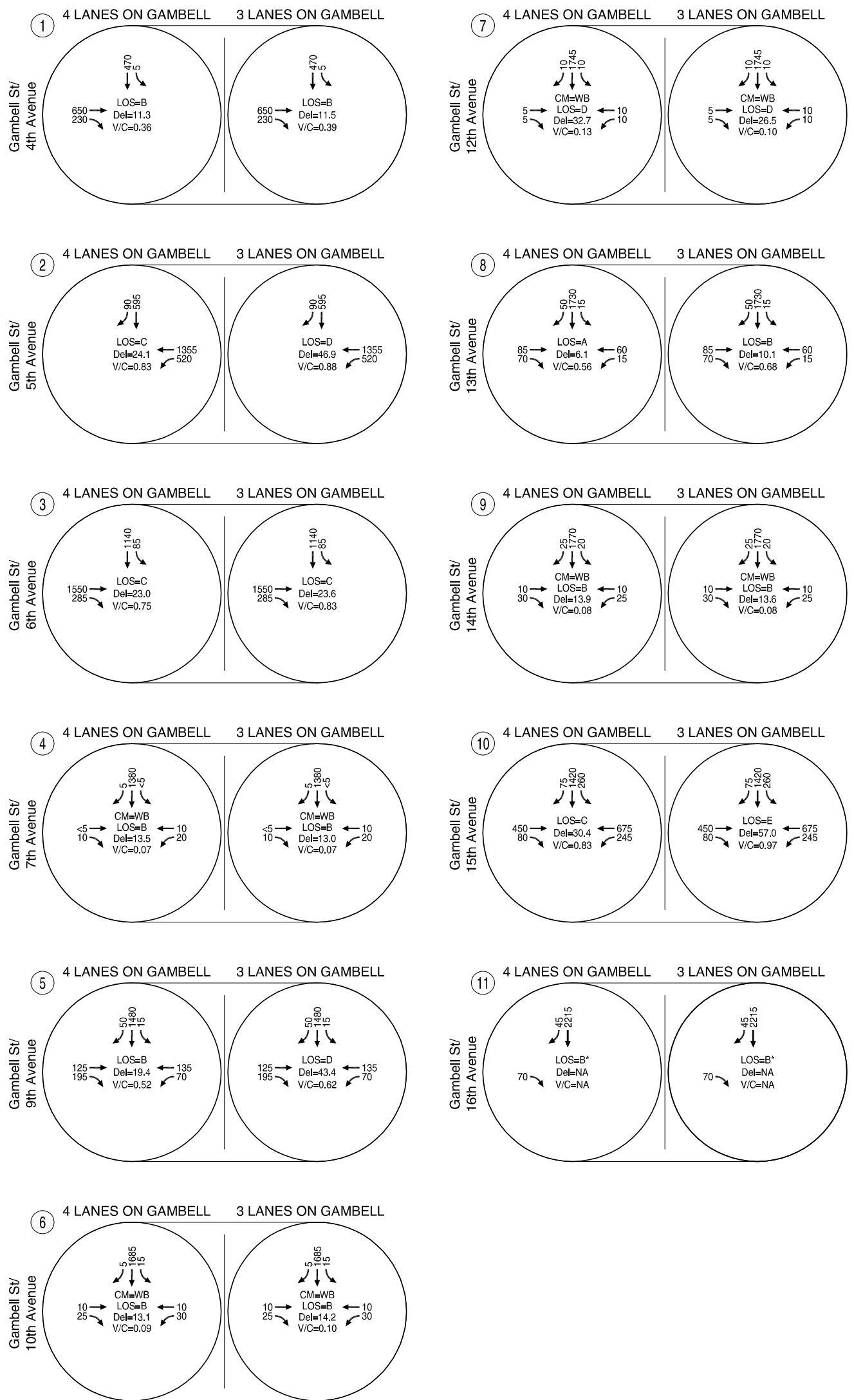
The operations at the signalized and unsignalized study intersections on Gambell Street were assessed assuming a three-lane cross-section (see Appendix A for illustrations of this preferred lane geometry). A variety of data was utilized for the operations analysis, including existing traffic counts at several intersections on the corridor (at 4th, 6th, and 9th), as well as turning movement counts conducted during the PM peak hour on a typical mid-week day in early May 2013. Volumes were projected for 2035 based on an assessment of historical growth on the corridor and the 2035 Metropolitan Transportation Plan (MTP) model projections. Based on historical traffic volumes taken from the permanent traffic recorder located at Ingra Street and Gambell Street near Chester Creek, traffic volumes grew about 0.6% annually between 1987 and 2011. The 2035 “no build” MTP model, which assumes no changes to the transportation network, shows a growth rate of approximately 1% per year over the corridor. Therefore, an annual growth rate of 1% was used to develop future traffic volumes.

The existing and future traffic volumes and operations are compared in Figures 1 and 2, respectively. The current cycle length (60 seconds) was not adjusted for existing operations. For the future scenario, the cycle length was extended (to 120 seconds). As seen in the figures, converting Gambell Street from four to three lanes has negligible impacts on operations, except at Gambell Street/15th Avenue. At this intersection, operations degrade to a LOS E during existing conditions and LOS F under future 2035 conditions with the elimination of one of the through lanes without the introduction of the Seward Highway to Glenn Highway Connection. Table 1 shows several scenarios for potential improvements at the Gambell Street/15th Avenue intersection.

Table 1: Intersection Operations at Gambell Street/15th Avenue under 3-lane configuration

	Existing PM Peak Hour		2035 PM Peak Hour	
	LOS	v/c	LOS	v/c
4-Lane Section (Existing)	C	0.83	D	0.98
3-Lane Section	E	0.97	F	1.10
3-Lane Section with Southbound Left-Turn Lane	C	0.88	D	1.02
3-Lane Section with Southbound Left-Turn Lane and Dual Westbound Lefts	C	0.83	D	0.90

As seen in Table 1, operations at Gambell Street/15th Avenue can be mitigated with the addition of a southbound left-turn lane. Adding a second westbound left-turn lane further improves intersection operations. Therefore, with a three-lane section and the addition of an exclusive southbound left-turn lane at 15th Avenue, all intersections are projected to operate within standards under both existing and future conditions. A concept sketch of the Gambell Street/15th Avenue intersection with an exclusive left-turn lane is provided in Figure 3. Analysis sheets for all scenarios are provided in Appendix B.



Legend

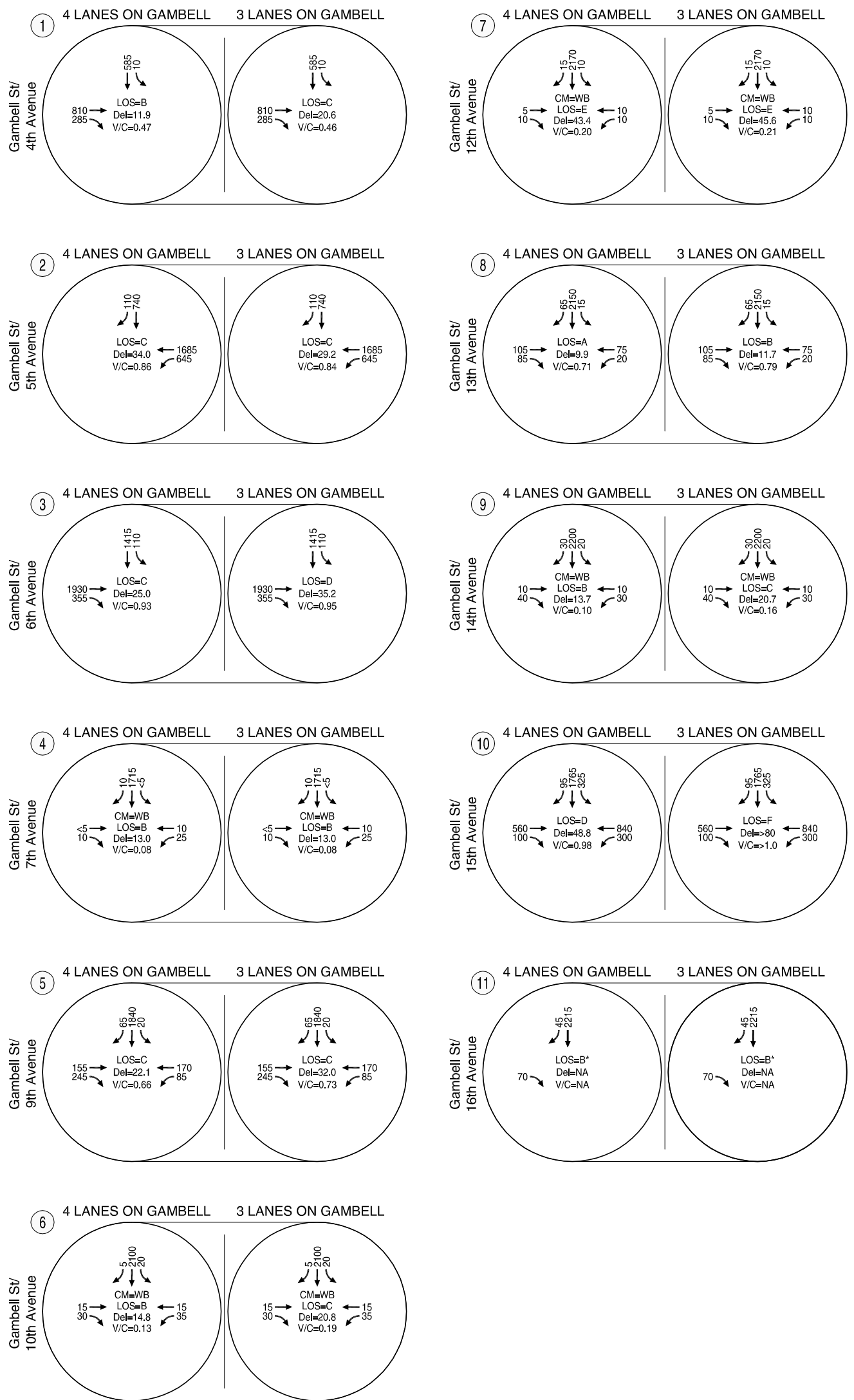
- CM = CRITICAL MOVEMENT (UNSIGNALIZED)
- LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED)/CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALIZED)
- Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED)/CRITICAL MOVEMENT CONTROL DELAY (UNSIGNALIZED)
- V/C = CRITICAL VOLUME-TO-CAPACITY RATIO
- * ANALYSIS BASED ON 2010 MERGE METHODOLOGY

**Existing Traffic Operations
Weekday PM Peak Hour
4 Lane versus 3 Lane Cross-Section**

Source: Municipality of Anchorage and Traffic Counts
Collected May 2013



**Figure
1**



Legend

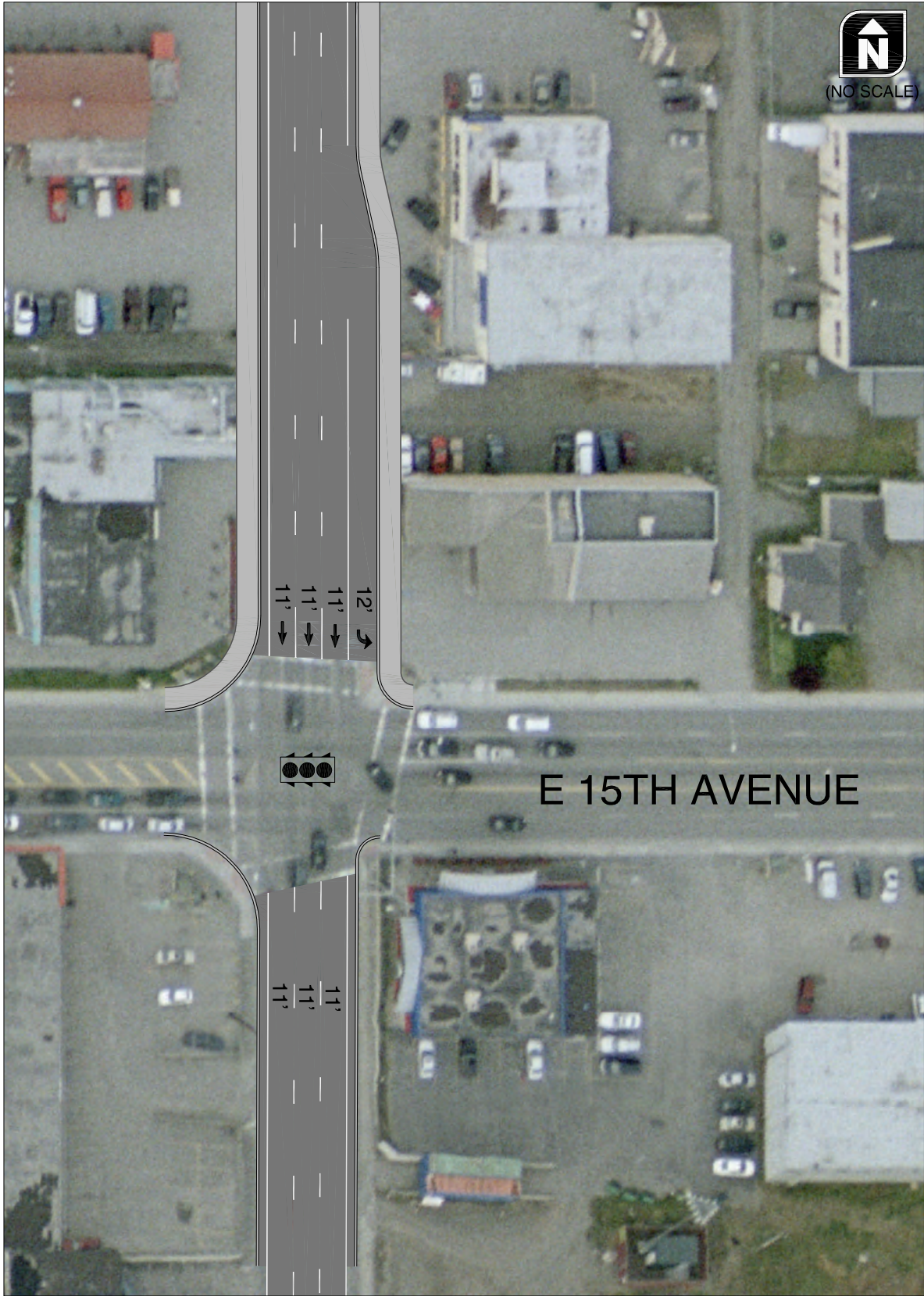
CM = CRITICAL MOVEMENT (UNSIGNALIZED)
 LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED)/CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALIZED)
 Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED)/CRITICAL MOVEMENT CONTROL DELAY (UNSIGNALIZED)
 V/C = CRITICAL VOLUME-TO-CAPACITY RATIO
 * ANALYSIS BASED ON 2010 MERGE METHODOLOGY

**Year 2035 Traffic Operations
 Weekday PM Peak Hour
 4 Lane versus 3 Lane Cross-Section**

Source: Municipality of Anchorage and Traffic Counts
 Collected May 2013



**Figure
 2**



H:\profile\13489 - Gambell Street\dws\CAD\13489 - Traffic Volumes.dwg Jun 11, 2013 - 8:39am - klausben - Layout Tab: 3_15handG

**Gambell Street/15h Avenue
Southbound Left-Turn Lane Concept Sketch**



**Figure
3**

ROADWAY SPEEDS

The posted speed limit on Gambell Street is 35 miles per hour. Based on speed data collected on the corridor during May 2013, existing 85th percentile speeds are generally between 30 and 35 miles per hour. The proposed cross-section eliminates a lane which will increase the volume of vehicles using each lane and therefore may slightly slow speeds. However, the cross-section also provides for wider lanes and more clearance space on both sides of the roadway. Therefore, speeds are not anticipated to change significantly with the proposed cross-section.

LANE USAGE

Gambell Street does not currently have any turn lanes for accesses or cross-streets within the study area. Therefore, there is the potential for the outside lanes to be used mainly as turn lanes with the center two lanes considered through lanes. Concerns were raised by stakeholders at the Gambell Street Redevelopment and Implementation Project Charette that with conversion to a three-lane section, only one effective through lane may remain. In order to address this concern, further analysis was conducted with the following conclusions:

- *Existing turning volumes:* as seen in Figure 1, existing turn volumes are relatively low except at the 15th Avenue intersection where a turn lane is recommended. Therefore, the impact of turning vehicles on operations is likely not significant.
- *Existing lane usage:* video footage was taken at the study intersections during the PM peak hour and multiple site visits were conducted. These observations showed that through vehicles are currently using all four lanes. Trucks appear to generally utilize the interior lanes, but also use all four lanes. It can be expected that vehicles will utilize all three travel lanes with the reduced cross-section.
- *Accesses:* with the consolidation and improvement of accesses in the future (which can be done with the three-lane conversion), the influence of turning vehicles on lane usage should be reduced.
- *Lane width:* the recommended cross-section widens the travel lanes and provides additional clearance space, which is expected to improve lane usage.

ROADWAY CONSISTENCY

While Gambell Street is currently four-lanes between 3rd Avenue and Fireweed Lane, it is three lanes south of Fireweed lane. Therefore, the extra capacity from the fourth lane is ineffective and does not produce any net gains in operations on the roadway. The four lanes may serve to get vehicles to Fireweed Lane faster, but this intersection serves as a bottleneck that slows traffic through the transition to three lanes. On the approach to the intersection, the left-side travel lane on Gambell Street becomes an exclusive left-turn lane, creating a trap lane that generates friction and weaving

movements on the approach to Fireweed Lane. As observed during several site visits to the corridor, the intersection generates significant southbound queues and delays.

Converting Gambell Street to three-lanes north of Fireweed Lane improves the consistency of the roadway. In addition, a left-turn lane can be added on the approach to the intersection, as shown in Exhibit 3, removing the trap-lane and improving operations on the approach.

Exhibit 3: Gambell Street Approach to Fireweed Lane (Southbound)



WINTER CONDITIONS (SNOW REMOVAL/STORAGE)

The current four-lane cross section on Gambell Street does not adequately provide for snow storage or removal. As expressed through meetings with the Project Management Team and stakeholders during the Charette, winter conditions are currently an issue on Gambell Street. The road effectively has three-lanes during the winter, as snow occupies a portion of the roadway and reduces the drivable cross-section. The proposed three-lane cross-section for Gambell Street provides 3.5-foot shoulders for snow storage, as well as wide, 9-foot sidewalks. In addition, the travel lanes are wider, further improving operations and safety on the roadway during snow conditions. This cross-section allows for adequate snow storage and should also reduce the splash exposure to pedestrians from the outside travel lanes as snow melts.

ACCESS MANAGEMENT

Technical Memorandum #2: Existing and Future Conditions, prepared for the Gambell Street Redevelopment Project, assessed existing accesses along the corridor. As noted in the report, there are currently areas along the corridor with poorly defined accesses or multiple access points to a single use. The proposed cross-section would require resetting of the curb line, which would provide the opportunity to consolidate or improve access management on the corridor. This would improve the efficiency of operations and also provide safety benefits along the corridor as well as improve on-site parking and circulation for businesses.

COMPARISON TO SIMILAR THREE-LANE ROADWAYS

There are several one-way streets in the vicinity of Gambell Street that have similar or higher traffic volumes than Gambell Street and are served by three lanes. A few examples are listed in Table 2.

Table 2: Three-Lane Roadways with Comparable AADTs to Gambell Street

Roadway	Section	2011 AADT	Number of Travel Lanes
Gambell Street	South of 9 th Avenue	19,543	4
Gambell Street	South of 15 th Avenue	23,603	4
5 th Avenue	West of Ingra Street	28,787	3
6 th Avenue	East of Ingra Street	22,749	3
C Street	South of Northern Lights Blvd	21,892	3

This further suggests that Gambell Street can operate effectively with three travel lanes.

CONCLUSIONS

Based on the above findings, the project team concludes that Gambell Street can operate effectively with a three-lane cross-section under both existing and future conditions, provided that an exclusive left-turn lane is provided at 15th Avenue. In addition, a three-lane cross-section provides enhanced pedestrian facilities, improved operations during snow conditions, an opportunity to improve access management, and safety benefits. The proposed cross-section also allows the street to potentially be converted from one-way to two-way traffic with on-street parking following the implementation of the Seward Highway to Glenn Highway Connection Project in the future.

Appendix A Preferred Alternative Layout



(1"=100')

E 3RD AVENUE

E 4TH AVENUE

E 5TH AVENUE

E 6TH AVENUE

E 7TH AVENUE



Legend

 TRAFFIC SIGNAL

Preferred Alternative
Gambell Street
 Anchorage, AK



Figure
4-A



(1"=100')



E 8TH AVENUE

E 9TH AVENUE


E 10TH AVENUE

E 11TH AVENUE

11' →
11' ←
↓



Legend

 TRAFFIC SIGNAL

**Preferred Alternative
Gambell Street
Anchorage, AK**




**Figure
4-B**

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Legend

 TRAFFIC SIGNAL

**Preferred Alternative
Gambell Street
Anchorage, AK**



**Figure
4-C**

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(1"=100')



Legend

 TRAFFIC SIGNAL

**Preferred Alternative
Gambell Street
Anchorage, AK**



**Figure
4-D**




(1"=100')



12'
11'
12'
11'

E FIREWEED LN

Legend

 TRAFFIC SIGNAL

**Preferred Alternative
Gambell Street
Anchorage, AK**















**Figure
4-E**

Appendix B Synchro Analysis Sheets

HCM Signalized Intersection Capacity Analysis
 305: 4th Avenue & Gambell St

5/31/2013




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	650	231	0	0	0	0	0	0	7	469	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1									4.2	
Lane Util. Factor		0.91									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		0.96									1.00	
Flt Protected		1.00									1.00	
Satd. Flow (prot)		4213									4419	
Flt Permitted		1.00									1.00	
Satd. Flow (perm)		4213									4419	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	714	254	0	0	0	0	0	0	8	515	0
RTOR Reduction (vph)	0	53	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	915	0	0	0	0	0	0	0	0	520	0
Confl. Peds. (#/hr)	29		20	20		29	41		21	21		41
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type											Split	
Protected Phases		2									1	1
Permitted Phases												
Actuated Green, G (s)		29.9									19.8	
Effective Green, g (s)		30.9									20.8	
Actuated g/C Ratio		0.51									0.35	
Clearance Time (s)		5.1									5.2	
Lane Grp Cap (vph)		2170									1532	
v/s Ratio Prot		c0.22									c0.12	
v/s Ratio Perm												
v/c Ratio		0.42									0.34	
Uniform Delay, d1		9.0									14.5	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.6									0.6	
Delay (s)		9.6									15.1	
Level of Service		A									B	
Approach Delay (s)		9.6			0.0			0.0			15.1	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM Average Control Delay			11.5								HCM Level of Service	B
HCM Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			60.0								Sum of lost time (s)	8.3
Intersection Capacity Utilization			44.0%								ICU Level of Service	A
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis













307: E 5th Ave & Gambell St

5/31/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					  						  		
Volume (vph)	0	0	0	520	1355	0	0	0	0	0	595	88	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total Lost time (s)				4.0	4.0						18.6		
Lane Util. Factor				0.86	0.86						0.91		
Frbp, ped/bikes				1.00	1.00						1.00		
Flpb, ped/bikes				1.00	1.00						1.00		
Frt				1.00	1.00						0.98		
Flt Protected				0.95	1.00						1.00		
Satd. Flow (prot)				1261	4007						4185		
Flt Permitted				0.95	1.00						1.00		
Satd. Flow (perm)				1261	4007						4185		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	0	0	0	553	1441	0	0	0	0	0	633	94	
RTOR Reduction (vph)	0	0	0	1	1	0	0	0	0	0	16	0	
Lane Group Flow (vph)	0	0	0	480	1512	0	0	0	0	0	711	0	
Confl. Peds. (#/hr)	2					2	16		8	8		16	
Confl. Bikes (#/hr)						3						1	
Heavy Vehicles (%)	0%	0%	0%	5%	4%	0%	0%	0%	0%	0%	3%	5%	
Turn Type				Split									
Protected Phases				2	2						1		
Permitted Phases													
Actuated Green, G (s)				28.0	28.0						7.4		
Effective Green, g (s)				29.0	29.0						8.4		
Actuated g/C Ratio				0.48	0.48						0.14		
Clearance Time (s)				5.0	5.0						19.6		
Lane Grp Cap (vph)				609	1937						586		
v/s Ratio Prot				c0.38	0.38						c0.17		
v/s Ratio Perm													
v/c Ratio				0.79	0.78						1.21		
Uniform Delay, d1				12.9	12.9						25.8		
Progression Factor				1.00	1.00						0.65		
Incremental Delay, d2				10.0	3.2						110.1		
Delay (s)				22.9	16.1						127.0		
Level of Service				C	B						F		
Approach Delay (s)		0.0			17.7			0.0			127.0		
Approach LOS		A			B			A			F		
Intersection Summary													
HCM Average Control Delay			46.9	HCM Level of Service							D		
HCM Volume to Capacity ratio			0.88										
Actuated Cycle Length (s)			60.0	Sum of lost time (s)					22.6				
Intersection Capacity Utilization			68.6%	ICU Level of Service					C				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 310: 6th Avenue & Gambell St


















5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	1550	284	0	0	0	0	0	0	87	1138	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.2	4.2								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	1.00								1.00	
Flpb, ped/bikes		1.00	1.00								1.00	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								1.00	
Satd. Flow (prot)		4167	1184								4407	
Flt Permitted		1.00	1.00								1.00	
Satd. Flow (perm)		4167	1184								4407	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1685	309	0	0	0	0	0	0	95	1237	0
RTOR Reduction (vph)	0	3	13	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1713	265	0	0	0	0	0	0	0	1330	0
Confl. Peds. (#/hr)	24		6	6		24	6		7	7		6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type			Prot								Split	
Protected Phases		2	2								1	1
Permitted Phases												
Actuated Green, G (s)		24.8	24.8								25.0	
Effective Green, g (s)		25.8	25.8								26.0	
Actuated g/C Ratio		0.43	0.43								0.43	
Clearance Time (s)		5.2	5.2								5.0	
Lane Grp Cap (vph)		1792	509								1910	
v/s Ratio Prot		c0.41	0.22								c0.30	
v/s Ratio Perm												
v/c Ratio		0.96	0.52								0.70	
Uniform Delay, d1		16.6	12.6								13.8	
Progression Factor		1.00	1.00								1.19	
Incremental Delay, d2		13.1	3.8								0.9	
Delay (s)		29.7	16.4								17.3	
Level of Service		C	B								B	
Approach Delay (s)		27.8			0.0			0.0			17.3	
Approach LOS		C			A			A			B	
Intersection Summary												
HCM Average Control Delay			23.6									HCM Level of Service C
HCM Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			60.0								8.2	
Intersection Capacity Utilization			74.5%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 105: E 7th Ave & Gambell St













5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	2	8	21	9	0	0	0	0	0	1379	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	2	8	22	9	0	0	0	0	0	1452	7
Pedestrians		31			4			6			1	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		3			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								652			428	
pX, platoon unblocked	0.82	0.82	0.82	0.82	0.82		0.82					
vC, conflicting volume	1492	1490	525	503	1494	5	1490			4		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	811	809	0	0	814	5	809			4		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	97	96	100	100			100		
cM capacity (veh/h)	207	251	867	804	249	1078	656			1625		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	11	32	363	726	370							
Volume Left	0	22	0	0	0							
Volume Right	8	0	0	0	7							
cSH	581	482	1625	1700	1700							
Volume to Capacity	0.02	0.07	0.00	0.43	0.22							
Queue Length 95th (ft)	1	4	0	0	0							
Control Delay (s)	11.3	13.0	0.0	0.0	0.0							
Lane LOS	B	B										
Approach Delay (s)	11.3	13.0	0.0									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			42.7%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

313: 9th Avenue & Gambell St


















5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↕	↖
Volume (vph)	3	123	197	69	136	0	0	0	0	14	1478	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1	4.1		4.1						4.1	
Lane Util. Factor		1.00	1.00		0.95						0.91	
Frbp, ped/bikes		1.00	1.00		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1617	1377		3026						4395	
Flt Permitted		0.99	1.00		0.85						1.00	
Satd. Flow (perm)		1608	1377		2614						4395	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	134	214	75	148	0	0	0	0	15	1607	57
RTOR Reduction (vph)	0	0	150	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	137	64	0	223	0	0	0	0	0	1673	0
Confl. Peds. (#/hr)	27		2	2		27	9			7	7	9
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm		Prot	pm+pt							Split	
Protected Phases		6	6	5	2					8	8	
Permitted Phases	6			2								
Actuated Green, G (s)		16.9	16.9		28.9						20.9	
Effective Green, g (s)		17.9	17.9		29.9						21.9	
Actuated g/C Ratio		0.30	0.30		0.50						0.36	
Clearance Time (s)		5.1	5.1		5.1						5.1	
Lane Grp Cap (vph)		480	411		1357						1604	
v/s Ratio Prot			0.05		c0.02						c0.38	
v/s Ratio Perm		c0.09			0.06							
v/c Ratio		0.29	0.16		0.16						1.04	
Uniform Delay, d1		16.1	15.5		8.2						19.1	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		1.5	0.8		0.3						34.5	
Delay (s)		17.6	16.3		8.5						53.6	
Level of Service		B	B		A						D	
Approach Delay (s)		16.8			8.5			0.0			53.6	
Approach LOS		B			A			A			D	
Intersection Summary												
HCM Average Control Delay			43.4		HCM Level of Service					D		
HCM Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)			12.3				
Intersection Capacity Utilization			75.2%		ICU Level of Service			D				
Analysis Period (min)			15									

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis
 107: E 10th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	11	24	29	12	0	0	0	0	17	1686	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	12	26	31	13	0	0	0	0	18	1813	5
Pedestrians		31			10			3			4	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		3			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1142			298	
pX, platoon unblocked	0.67	0.67	0.67	0.67	0.67		0.67					
vC, conflicting volume	1894	1893	641	686	1896	14	1849			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	607	607	0	0	611	14	541			10		
tC, single (s)	7.5	6.5	6.9	7.6	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	96	95	95	100	100			99		
cM capacity (veh/h)	232	265	712	602	263	1056	677			1609		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	38	44	472	906	459							
Volume Left	0	31	18	0	0							
Volume Right	26	0	0	0	5							
cSH	465	437	1609	1700	1700							
Volume to Capacity	0.08	0.10	0.01	0.53	0.27							
Queue Length 95th (ft)	5	7	1	0	0							
Control Delay (s)	13.4	14.2	0.4	0.0	0.0							
Lane LOS	B	B	A									
Approach Delay (s)	13.4	14.2	0.1									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			52.3%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 108: E 12th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	6	7	9	8	0	0	0	0	10	1744	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	7	8	10	9	0	0	0	0	11	1960	12
Pedestrians		73			21			2			23	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		6			2			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								413			1027	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	2089	2082	734	710	2088	44	2045			21		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1291	1282	0	0	1291	44	1233			21		
tC, single (s)	7.5	6.5	6.9	7.5	6.7	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	100	94	99	98	91	100	100			99		
cM capacity (veh/h)	74	115	770	672	103	986	404			1580		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	15	19	501	980	502							
Volume Left	0	10	11	0	0							
Volume Right	8	0	0	0	12							
cSH	212	186	1580	1700	1700							
Volume to Capacity	0.07	0.10	0.01	0.58	0.30							
Queue Length 95th (ft)	4	7	0	0	0							
Control Delay (s)	23.3	26.5	0.2	0.0	0.0							
Lane LOS	C	D	A									
Approach Delay (s)	23.3	26.5	0.1									
Approach LOS	C	D										
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utilization			54.7%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

315: E 13th Ave & Gambell St


















5/31/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↕↕↕	
Volume (vph)	1	83	68	17	59	0	0	0	0	13	1728	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0						4.0	
Lane Util. Factor		1.00			1.00						0.91	
Frbp, ped/bikes		0.97			1.00						1.00	
Flpb, ped/bikes		1.00			0.99						1.00	
Frt		0.94			1.00						1.00	
Flt Protected		1.00			0.99						1.00	
Satd. Flow (prot)		1465			1545						4259	
Flt Permitted		1.00			0.93						1.00	
Satd. Flow (perm)		1464			1451						4259	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	1	93	76	19	66	0	0	0	0	15	1942	58
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	167	0	0	85	0	0	0	0	0	2010	0
Confl. Peds. (#/hr)	21		45	45		21	64		4	4		64
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	2%	0%	6%	2%	0%	0%	0%	0%	0%	3%	4%
Turn Type	Perm		Perm				Split					
Protected Phases		6			2					8	8	
Permitted Phases	6			2								
Actuated Green, G (s)		20.0			20.0						30.0	
Effective Green, g (s)		21.0			21.0						31.0	
Actuated g/C Ratio		0.35			0.35						0.52	
Clearance Time (s)		5.0			5.0						5.0	
Lane Grp Cap (vph)		512			508						2200	
v/s Ratio Prot											c0.47	
v/s Ratio Perm		c0.11			0.06							
v/c Ratio		0.33			0.17						0.91	
Uniform Delay, d1		14.3			13.5						13.3	
Progression Factor		1.00			1.00						0.39	
Incremental Delay, d2		1.7			0.7						4.2	
Delay (s)		16.0			14.2						9.4	
Level of Service		B			B						A	
Approach Delay (s)		16.0			14.2			0.0			9.4	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM Average Control Delay			10.1		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			68.4%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 110: E 14th St & Gambell St













5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	10	31	23	10	0	0	0	0	18	1768	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	11	34	25	11	0	0	0	0	20	1943	27
Pedestrians		17			3			1			8	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								361			359	
pX, platoon unblocked	0.60	0.60	0.60	0.60	0.60		0.60					
vC, conflicting volume	2027	2016	679	731	2030	11	1987			3		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	381	363	0	0	386	11	315			3		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	95	95	97	100	100			99		
cM capacity (veh/h)	312	331	646	556	321	1064	744			1628		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	45	36	505	971	513							
Volume Left	0	25	20	0	0							
Volume Right	34	0	0	0	27							
cSH	524	456	1628	1700	1700							
Volume to Capacity	0.09	0.08	0.01	0.57	0.30							
Queue Length 95th (ft)	6	5	1	0	0							
Control Delay (s)	12.5	13.6	0.4	0.0	0.0							
Lane LOS	B	B	A									
Approach Delay (s)	12.5	13.6	0.1									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			54.6%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

316: E 15th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↑↑↑	
Volume (vph)	0	451	80	243	673	0	0	0	0	261	1419	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1						4.0	
Lane Util. Factor		0.95		1.00	0.95						0.91	
Frbp, ped/bikes		1.00		1.00	1.00						1.00	
Flpb, ped/bikes		1.00		1.00	1.00						1.00	
Frt		0.98		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		2973		1480	3018						4248	
Flt Permitted		1.00		0.23	1.00						0.99	
Satd. Flow (perm)		2973		364	3018						4248	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	501	89	270	748	0	0	0	0	290	1577	84
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	566	0	270	748	0	0	0	0	0	1943	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt							Split	
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		15.0		27.1	27.1						22.4	
Effective Green, g (s)		16.0		28.1	28.1						23.8	
Actuated g/C Ratio		0.27		0.47	0.47						0.40	
Clearance Time (s)		5.1		5.1	5.1						5.4	
Vehicle Extension (s)		0.2		1.5	0.2						0.2	
Lane Grp Cap (vph)		793		319	1413						1685	
v/s Ratio Prot		0.19		c0.11	0.25						c0.46	
v/s Ratio Perm				c0.28								
v/c Ratio		0.71		0.85	0.53						1.15	
Uniform Delay, d1		19.9		11.5	11.3						18.1	
Progression Factor		1.00		1.00	1.00						0.81	
Incremental Delay, d2		5.4		17.6	1.4						72.7	
Delay (s)		25.3		29.2	12.7						87.3	
Level of Service		C		C	B						F	
Approach Delay (s)		25.3			17.1			0.0			87.3	
Approach LOS		C			B			A			F	






















Intersection Summary

HCM Average Control Delay	57.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.1
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 316: E 15th Ave & Gambell St























5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						  	
Volume (vph)	0	451	80	243	673	0	0	0	0	261	1419	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1					4.0	4.0	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.91	
Frbp, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.99	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		2973		1480	3018					1524	4263	
Flt Permitted		1.00		0.23	1.00					0.95	1.00	
Satd. Flow (perm)		2973		364	3018					1524	4263	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	501	89	270	748	0	0	0	0	290	1577	84
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	566	0	270	748	0	0	0	0	290	1651	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt						Split		
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		15.0		27.2	27.2					22.3	22.3	
Effective Green, g (s)		16.0		28.2	28.2					23.7	23.7	
Actuated g/C Ratio		0.27		0.47	0.47					0.39	0.39	
Clearance Time (s)		5.1		5.1	5.1					5.4	5.4	
Vehicle Extension (s)		0.2		1.5	0.2					0.2	0.2	
Lane Grp Cap (vph)		793		322	1418					602	1684	
v/s Ratio Prot		0.19		c0.11	0.25					0.19	c0.39	
v/s Ratio Perm				c0.28								
v/c Ratio		0.71		0.84	0.53					0.48	0.98	
Uniform Delay, d1		19.9		11.5	11.2					13.6	17.9	
Progression Factor		1.00		1.00	1.00					0.97	0.84	
Incremental Delay, d2		5.4		16.4	1.4					1.3	11.4	
Delay (s)		25.3		27.9	12.6					14.5	26.4	
Level of Service		C		C	B					B	C	
Approach Delay (s)		25.3			16.7			0.0			24.7	
Approach LOS		C			B			A			C	
Intersection Summary												
HCM Average Control Delay			22.5		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.1			
Intersection Capacity Utilization			77.7%		ICU Level of Service					D		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
316: E 15th Ave & Gambell St

5/31/2013













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 						  	
Volume (vph)	0	451	80	243	673	0	0	0	0	261	1419	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1					4.0	4.0	
Lane Util. Factor		0.95		0.97	0.95					1.00	0.91	
Frbp, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.99	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		2973		2871	3018					1524	4263	
Flt Permitted		1.00		0.23	1.00					0.95	1.00	
Satd. Flow (perm)		2973		705	3018					1524	4263	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	501	89	270	748	0	0	0	0	290	1577	84
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	566	0	270	748	0	0	0	0	290	1651	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt							Split	
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		15.0		27.1	27.1					22.4	22.4	
Effective Green, g (s)		16.0		28.1	28.1					23.8	23.8	
Actuated g/C Ratio		0.27		0.47	0.47					0.40	0.40	
Clearance Time (s)		5.1		5.1	5.1					5.4	5.4	
Vehicle Extension (s)		0.2		1.5	0.2					0.2	0.2	
Lane Grp Cap (vph)		793		619	1413					605	1691	
v/s Ratio Prot		c0.19		0.06	c0.25					0.19	c0.39	
v/s Ratio Perm				0.15								
v/c Ratio		0.71		0.44	0.53					0.48	0.98	
Uniform Delay, d1		19.9		10.2	11.3					13.5	17.8	
Progression Factor		1.00		1.00	1.00					0.97	0.83	
Incremental Delay, d2		5.4		0.2	1.4					1.3	10.7	
Delay (s)		25.3		10.4	12.7					14.3	25.6	
Level of Service		C		B	B					B	C	
Approach Delay (s)		25.3			12.1			0.0			23.9	
Approach LOS		C			B			A			C	
Intersection Summary												
HCM Average Control Delay			20.8		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)			12.2				
Intersection Capacity Utilization			70.1%		ICU Level of Service			C				
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

305: 4th Avenue & Gambell St

5/31/2013




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	808	287	0	0	0	0	0	0	9	584	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1									4.2	
Lane Util. Factor		0.91									0.91	
Frbp, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		0.96									1.00	
Flt Protected		1.00									1.00	
Satd. Flow (prot)		4192									4419	
Flt Permitted		1.00									1.00	
Satd. Flow (perm)		4192									4419	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	888	315	0	0	0	0	0	0	10	642	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	1177	0	0	0	0	0	0	0	0	651	0
Confl. Peds. (#/hr)	29		20	20		29	41		21	21		41
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type											Split	
Protected Phases		2									1	1
Permitted Phases												
Actuated Green, G (s)		69.9									39.8	
Effective Green, g (s)		70.9									40.8	
Actuated g/C Ratio		0.59									0.34	
Clearance Time (s)		5.1									5.2	
Lane Grp Cap (vph)		2477									1502	
v/s Ratio Prot		c0.28									c0.15	
v/s Ratio Perm												
v/c Ratio		0.48									0.43	
Uniform Delay, d1		14.0									30.7	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.7									0.9	
Delay (s)		14.6									31.6	
Level of Service		B									C	
Approach Delay (s)		14.6			0.0			0.0			31.6	
Approach LOS		B			A			A			C	
Intersection Summary												
HCM Average Control Delay			20.6								HCM Level of Service	C
HCM Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			120.0							8.3	Sum of lost time (s)	
Intersection Capacity Utilization			49.1%								ICU Level of Service	A
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

307: E 5th Ave & Gambell St













5/31/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					  						  		
Volume (vph)	0	0	0	647	1687	0	0	0	0	0	741	110	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total Lost time (s)				4.0	4.0						18.6		
Lane Util. Factor				0.86	0.86						0.91		
Frbp, ped/bikes				1.00	1.00						0.99		
Flpb, ped/bikes				1.00	1.00						1.00		
Frt				1.00	1.00						0.98		
Flt Protected				0.95	1.00						1.00		
Satd. Flow (prot)				1261	4008						4178		
Flt Permitted				0.95	1.00						1.00		
Satd. Flow (perm)				1261	4008						4178		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	0	0	0	688	1795	0	0	0	0	0	788	117	
RTOR Reduction (vph)	0	0	0	6	4	0	0	0	0	0	10	0	
Lane Group Flow (vph)	0	0	0	593	1880	0	0	0	0	0	895	0	
Confl. Peds. (#/hr)	2					2	16		8	8		16	
Confl. Bikes (#/hr)						3						1	
Heavy Vehicles (%)	0%	0%	0%	5%	4%	0%	0%	0%	0%	0%	3%	5%	
Turn Type				Split									
Protected Phases				2	2						1		
Permitted Phases													
Actuated Green, G (s)				66.0	66.0						29.4		
Effective Green, g (s)				67.0	67.0						30.4		
Actuated g/C Ratio				0.56	0.56						0.25		
Clearance Time (s)				5.0	5.0						19.6		
Lane Grp Cap (vph)				704	2238						1058		
v/s Ratio Prot				c0.47	0.47						c0.21		
v/s Ratio Perm													
v/c Ratio				0.84	0.84						0.85		
Uniform Delay, d1				22.1	22.0						42.6		
Progression Factor				1.00	1.00						0.59		
Incremental Delay, d2				11.7	4.0						7.7		
Delay (s)				33.8	26.0						32.6		
Level of Service				C	C						C		
Approach Delay (s)		0.0			27.9			0.0			32.6		
Approach LOS		A			C			A			C		
Intersection Summary													
HCM Average Control Delay			29.2	HCM Level of Service							C		
HCM Volume to Capacity ratio			0.84										
Actuated Cycle Length (s)			120.0	Sum of lost time (s)						22.6			
Intersection Capacity Utilization			78.9%	ICU Level of Service						D			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

310: 6th Avenue & Gambell St


















5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑								↑↑↑	
Volume (vph)	0	1930	354	0	0	0	0	0	0	109	1416	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.2	4.2								4.0	
Lane Util. Factor		0.86	0.86								0.91	
Frbp, ped/bikes		1.00	1.00								1.00	
Flpb, ped/bikes		1.00	1.00								1.00	
Frt		1.00	0.85								1.00	
Flt Protected		1.00	1.00								1.00	
Satd. Flow (prot)		4166	1184								4407	
Flt Permitted		1.00	1.00								1.00	
Satd. Flow (perm)		4166	1184								4407	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2098	385	0	0	0	0	0	0	118	1539	0
RTOR Reduction (vph)	0	1	2	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	2136	344	0	0	0	0	0	0	0	1655	0
Confl. Peds. (#/hr)	24		6	6		24	6		7	7		6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type			Prot								Split	
Protected Phases		2	2								1	1
Permitted Phases												
Actuated Green, G (s)		63.8	63.8								46.0	
Effective Green, g (s)		64.8	64.8								47.0	
Actuated g/C Ratio		0.54	0.54								0.39	
Clearance Time (s)		5.2	5.2								5.0	
Lane Grp Cap (vph)		2250	639								1726	
v/s Ratio Prot		c0.51	0.29								c0.38	
v/s Ratio Perm												
v/c Ratio		0.95	0.54								0.96	
Uniform Delay, d1		26.0	17.9								35.6	
Progression Factor		1.00	1.00								0.75	
Incremental Delay, d2		10.3	3.2								10.0	
Delay (s)		36.3	21.1								36.8	
Level of Service		D	C								D	
Approach Delay (s)		34.2			0.0			0.0			36.8	
Approach LOS		C			A			A			D	
Intersection Summary												
HCM Average Control Delay			35.2								HCM Level of Service	D
HCM Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			120.0								Sum of lost time (s)	8.2
Intersection Capacity Utilization			90.6%								ICU Level of Service	E
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 105: E 7th Ave & Gambell St













5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	2	10	26	11	0	0	0	0	0	1716	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	2	11	27	12	0	0	0	0	0	1806	9
Pedestrians		31			4			6			1	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		3			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								652			428	
pX, platoon unblocked	0.66	0.66	0.66	0.66	0.66		0.66					
vC, conflicting volume	1849	1846	644	624	1851	5	1847			4		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	494	490	0	0	497	5	491			4		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	96	96	100	100			100		
cM capacity (veh/h)	283	310	703	650	307	1078	698			1625		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	13	39	452	903	461							
Volume Left	0	27	0	0	0							
Volume Right	11	0	0	0	9							
cSH	580	488	1625	1700	1700							
Volume to Capacity	0.02	0.08	0.00	0.53	0.27							
Queue Length 95th (ft)	1	5	0	0	0							
Control Delay (s)	11.3	13.0	0.0	0.0	0.0							
Lane LOS	B	B										
Approach Delay (s)	11.3	13.0	0.0									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			49.8%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

313: 9th Avenue & Gambell St

















5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↕						↕↗	
Volume (vph)	3	153	245	86	169	0	0	0	0	18	1839	65
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1	4.1		4.1						4.1	
Lane Util. Factor		1.00	1.00		0.95						0.91	
Frbp, ped/bikes		1.00	1.00		1.00						1.00	
Flpb, ped/bikes		1.00	1.00		1.00						1.00	
Fr _t		1.00	0.85		1.00						0.99	
Fl _t Protected		1.00	1.00		0.98						1.00	
Satd. Flow (prot)		1617	1377		3025						4394	
Fl _t Permitted		0.99	1.00		0.72						1.00	
Satd. Flow (perm)		1610	1377		2212						4394	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	166	266	93	184	0	0	0	0	20	1999	71
RTOR Reduction (vph)	0	0	41	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	169	225	0	277	0	0	0	0	0	2087	0
Confl. Peds. (#/hr)	27		2	2		27	9			7	7	9
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm		Prot	pm+pt							Split	
Protected Phases		6	6	5	2					8	8	
Permitted Phases	6			2								
Actuated Green, G (s)		31.9	31.9		42.0						67.8	
Effective Green, g (s)		32.9	32.9		43.0						68.8	
Actuated g/C Ratio		0.27	0.27		0.36						0.57	
Clearance Time (s)		5.1	5.1		5.1						5.1	
Lane Grp Cap (vph)		441	378		833						2519	
v/s Ratio Prot			c0.16		c0.02						c0.48	
v/s Ratio Perm		0.10			0.10							
v/c Ratio		0.38	0.59		0.33						0.83	
Uniform Delay, d1		35.3	37.8		28.0						20.8	
Progression Factor		1.00	1.00		1.00						1.35	
Incremental Delay, d2		2.5	6.7		1.1						2.1	
Delay (s)		37.8	44.5		29.1						30.3	
Level of Service		D	D		C						C	
Approach Delay (s)		41.9			29.1			0.0			30.3	
Approach LOS		D			C			A			C	
Intersection Summary												
HCM Average Control Delay			32.0		HCM Level of Service					C		
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)			12.3				
Intersection Capacity Utilization			86.3%		ICU Level of Service			E				
Analysis Period (min)			15									

c Critical Lane Group


















HCM Unsignalized Intersection Capacity Analysis
 107: E 10th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	14	30	36	15	0	0	0	0	21	2099	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	15	32	39	16	0	0	0	0	23	2257	6
Pedestrians		31			10			3			4	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		3			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1142			298	
pX, platoon unblocked	0.63	0.63	0.63	0.63	0.63		0.63					
vC, conflicting volume	2348	2346	790	850	2350	14	2294			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1063	1059	0	0	1064	14	976			10		
tC, single (s)	7.5	6.5	6.9	7.6	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	100	89	95	93	88	100	100			99		
cM capacity (veh/h)	96	135	665	525	134	1056	436			1609		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	47	55	587	1128	571							
Volume Left	0	39	23	0	0							
Volume Right	32	0	0	0	6							
cSH	295	282	1609	1700	1700							
Volume to Capacity	0.16	0.19	0.01	0.66	0.34							
Queue Length 95th (ft)	11	14	1	0	0							
Control Delay (s)	19.5	20.8	0.4	0.0	0.0							
Lane LOS	C	C	A									
Approach Delay (s)	19.5	20.8	0.1									
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			61.1%	ICU Level of Service	B							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 108: E 12th Ave & Gambell St



















5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	7	9	11	10	0	0	0	0	12	2171	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	8	10	12	11	0	0	0	0	13	2439	16
Pedestrians		73			21			2			23	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		6			2			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								413			1027	
pX, platoon unblocked	0.66	0.66	0.66	0.66	0.66		0.66					
vC, conflicting volume	2576	2568	896	877	2576	44	2528			21		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1575	1563	0	0	1575	44	1502			21		
tC, single (s)	7.5	6.5	6.9	7.5	6.7	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	100	88	98	98	81	100	100			99		
cM capacity (veh/h)	37	68	674	559	59	986	279			1580		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	18	24	623	1220	626							
Volume Left	0	12	13	0	0							
Volume Right	10	0	0	0	16							
cSH	137	112	1580	1700	1700							
Volume to Capacity	0.13	0.21	0.01	0.72	0.37							
Queue Length 95th (ft)	9	15	1	0	0							
Control Delay (s)	35.1	45.6	0.3	0.0	0.0							
Lane LOS	E	E	A									
Approach Delay (s)	35.1	45.6	0.1									
Approach LOS	E	E										
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			63.3%		ICU Level of Service					B		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis


















315: E 13th Ave & Gambell St

5/31/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations											  		
Volume (vph)	1	103	85	21	73	0	0	0	0	16	2151	65	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total Lost time (s)		4.0			4.0						4.0		
Lane Util. Factor		1.00			1.00						0.91		
Frbp, ped/bikes		0.95			1.00						0.99		
Flpb, ped/bikes		1.00			0.99						1.00		
Frt		0.94			1.00						1.00		
Flt Protected		1.00			0.99						1.00		
Satd. Flow (prot)		1432			1541						4246		
Flt Permitted		1.00			0.91						1.00		
Satd. Flow (perm)		1432			1414						4246		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Adj. Flow (vph)	1	116	96	24	82	0	0	0	0	18	2417	73	
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	2	0	
Lane Group Flow (vph)	0	208	0	0	106	0	0	0	0	0	2506	0	
Confl. Peds. (#/hr)	21		45	45		21	64			4	4	64	
Confl. Bikes (#/hr)			1			1							
Heavy Vehicles (%)	0%	2%	0%	6%	2%	0%	0%	0%	0%	0%	3%	4%	
Turn Type	Perm			Perm							Split		
Protected Phases		6			2						8	8	
Permitted Phases	6			2									
Actuated Green, G (s)		28.0			28.0						82.0		
Effective Green, g (s)		29.0			29.0						83.0		
Actuated g/C Ratio		0.24			0.24						0.69		
Clearance Time (s)		5.0			5.0						5.0		
Lane Grp Cap (vph)		346			342						2937		
v/s Ratio Prot											c0.59		
v/s Ratio Perm		0.15			0.07								
v/c Ratio		0.60			0.31						0.85		
Uniform Delay, d1		40.4			37.3						13.9		
Progression Factor		1.00			1.00						0.36		
Incremental Delay, d2		7.5			2.3						2.4		
Delay (s)		47.9			39.6						7.5		
Level of Service		D			D						A		
Approach Delay (s)		47.9			39.6			0.0			7.5		
Approach LOS		D			D			A			A		
Intersection Summary													
HCM Average Control Delay			11.7			HCM Level of Service					B		
HCM Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization			83.3%			ICU Level of Service				E			
Analysis Period (min)			15										
c Critical Lane Group													













HCM Unsignalized Intersection Capacity Analysis
 110: E 14th St & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											  	
Volume (veh/h)	0	12	39	29	12	0	0	0	0	22	2201	31
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	13	43	32	13	0	0	0	0	24	2419	34
Pedestrians		17			3			1			8	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								361			359	
pX, platoon unblocked	0.57	0.57	0.57	0.57	0.57		0.57					
vC, conflicting volume	2516	2504	841	908	2521	11	2470			3		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	996	975	0	0	1006	11	915			3		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	93	93	90	100	100			99		
cM capacity (veh/h)	101	139	609	489	133	1064	421			1628		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2	SB 3							
Volume Total	56	45	629	1209	639							
Volume Left	0	32	24	0	0							
Volume Right	43	0	0	0	34							
cSH	339	275	1628	1700	1700							
Volume to Capacity	0.17	0.16	0.01	0.71	0.38							
Queue Length 95th (ft)	12	12	1	0	0							
Control Delay (s)	17.7	20.7	0.4	0.0	0.0							
Lane LOS	C	C	A									
Approach Delay (s)	17.7	20.7	0.1									
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			63.7%		ICU Level of Service					B		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
316: E 15th Ave & Gambell St

5/31/2013






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↑↑↑	
Volume (vph)	0	561	100	302	838	0	0	0	0	325	1766	95
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1						4.0	
Lane Util. Factor		0.95		1.00	0.95						0.91	
Frbp, ped/bikes		1.00		1.00	1.00						1.00	
Flpb, ped/bikes		1.00		1.00	1.00						1.00	
Frt		0.98		1.00	1.00						0.99	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		2973		1480	3018						4248	
Flt Permitted		1.00		0.13	1.00						0.99	
Satd. Flow (perm)		2973		208	3018						4248	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	623	111	336	931	0	0	0	0	361	1962	106
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	722	0	336	931	0	0	0	0	0	2425	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt							Split	
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		24.9		48.9	48.9						60.6	
Effective Green, g (s)		25.9		49.9	49.9						62.0	
Actuated g/C Ratio		0.22		0.42	0.42						0.52	
Clearance Time (s)		5.1		5.1	5.1						5.4	
Vehicle Extension (s)		0.2		1.5	0.2						0.2	
Lane Grp Cap (vph)		642		297	1255						2195	
v/s Ratio Prot		0.24		c0.19	0.31						c0.57	
v/s Ratio Perm				c0.28								
v/c Ratio		1.12		1.13	0.74						1.10	
Uniform Delay, d1		47.0		35.7	29.6						29.0	
Progression Factor		1.00		1.00	1.00						1.04	
Incremental Delay, d2		75.1		92.5	4.0						51.6	
Delay (s)		122.2		128.1	33.6						81.9	
Level of Service		F		F	C						F	
Approach Delay (s)		122.2			58.7			0.0			81.9	
Approach LOS		F			E			A			F	
Intersection Summary												
HCM Average Control Delay			81.9		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.10									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)			8.1				
Intersection Capacity Utilization			102.0%		ICU Level of Service			G				
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

316: E 15th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						  	
Volume (vph)	0	561	100	302	838	0	0	0	0	325	1766	95
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1					4.0	4.0	
Lane Util. Factor		0.95		1.00	0.95					1.00	0.91	
Frbp, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.99	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		2973		1480	3018					1524	4262	
Flt Permitted		1.00		0.12	1.00					0.95	1.00	
Satd. Flow (perm)		2973		192	3018					1524	4262	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	623	111	336	931	0	0	0	0	361	1962	106
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	722	0	336	931	0	0	0	0	361	2063	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt							Split	
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		27.3		52.9	52.9					56.6	56.6	
Effective Green, g (s)		28.3		53.9	53.9					58.0	58.0	
Actuated g/C Ratio		0.24		0.45	0.45					0.48	0.48	
Clearance Time (s)		5.1		5.1	5.1					5.4	5.4	
Vehicle Extension (s)		0.2		1.5	0.2					0.2	0.2	
Lane Grp Cap (vph)		701		317	1356					737	2060	
v/s Ratio Prot		0.24		c0.19	0.31					0.24	c0.48	
v/s Ratio Perm				c0.29								
v/c Ratio		1.03		1.06	0.69					0.49	1.00	
Uniform Delay, d1		45.9		36.1	26.3					21.0	31.0	
Progression Factor		1.00		1.00	1.00					1.22	1.13	
Incremental Delay, d2		41.8		67.2	2.9					1.3	15.2	
Delay (s)		87.6		103.3	29.2					26.9	50.2	
Level of Service		F		F	C					C	D	
Approach Delay (s)		87.6			48.8			0.0			46.7	
Approach LOS		F			D			A			D	
























Intersection Summary

HCM Average Control Delay	54.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.1
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 316: E 15th Ave & Gambell St

5/31/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 					 	  	
Volume (vph)	0	561	100	302	838	0	0	0	0	325	1766	95
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.1		4.1	4.1					4.0	4.0	
Lane Util. Factor		0.95		0.97	0.95					1.00	0.91	
Frbp, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00					1.00	1.00	
Frt		0.98		1.00	1.00					1.00	0.99	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		2973		2871	3018					1524	4262	
Flt Permitted		1.00		0.13	1.00					0.95	1.00	
Satd. Flow (perm)		2973		405	3018					1524	4262	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	623	111	336	931	0	0	0	0	361	1962	106
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	725	0	336	931	0	0	0	0	361	2063	0
Confl. Peds. (#/hr)	6					6	1					1
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	1%	1%	4%	2%	0%	0%	0%	0%	1%	3%	1%
Turn Type				pm+pt						Split		
Protected Phases		8		7	4					6	6	
Permitted Phases				4								
Actuated Green, G (s)		32.0		47.9	47.9					61.6	61.6	
Effective Green, g (s)		33.0		48.9	48.9					63.0	63.0	
Actuated g/C Ratio		0.28		0.41	0.41					0.52	0.52	
Clearance Time (s)		5.1		5.1	5.1					5.4	5.4	
Vehicle Extension (s)		0.2		1.5	0.2					0.2	0.2	
Lane Grp Cap (vph)		818		408	1230					800	2238	
v/s Ratio Prot		c0.24		0.08	c0.31					0.24	c0.48	
v/s Ratio Perm				0.26								
v/c Ratio		0.89		0.82	0.76					0.45	0.92	
Uniform Delay, d1		41.7		27.2	30.5					17.7	26.2	
Progression Factor		1.00		1.00	1.00					1.17	1.05	
Incremental Delay, d2		13.6		12.1	4.4					1.0	4.7	
Delay (s)		55.3		39.3	34.8					21.8	32.1	
Level of Service		E		D	C					C	C	
Approach Delay (s)		55.3			36.0			0.0			30.6	
Approach LOS		E			D			A			C	
Intersection Summary												
HCM Average Control Delay			36.2		HCM Level of Service					D		
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				12.2			
Intersection Capacity Utilization			84.7%		ICU Level of Service					E		
Analysis Period (min)			15									

c Critical Lane Group