

NE Holman to NE Regents (top of Alameda Ridge)

	NE 26 th Ave	NE 29 th Ave	NE 32 nd Ave
Street Improvements	Neighborhood Greenway	Neighborhood Greenway	Neighborhood Greenway
Alignment	<p>Direct, but has small amount of out-of-direction cutting back east to NE Regents at Alameda Ridge.</p> <p>➡ More intuitive if combined with 26th Ave south of Fremont</p>	Direct, but has small amount of out-of-direction travel.	<p>Direct</p> <p>North of Holman: Out-of-direction connection to Dekum and Lombard</p>
Destinations/ Local Access	<p>➡ Closer to commercial activity on NE Alberta</p>		
Environment	<p>Traffic: Low traffic volume, residential street environment</p> <p>⚠ Surface conditions: Some concrete street- variable conditions</p>	<p>Traffic: Low traffic volume, residential street environment</p> <p>⚠ Transit: Prescott #17: south of Skidmore</p> <p>⚠ Surface conditions: Some concrete streets (Alberta to Prescott)- variable condition,</p>	<p>Traffic: Low traffic volume, residential street environment</p> <p>➡ Surface conditions: No concrete sections</p>
Parking Impacts	Minor at Killingsworth and Alberta crossings	Minor at Killingsworth and Alberta crossing	Minor at Killingsworth and Alberta crossings
Crossing Issues	<p>NE Dekum: Crosswalk</p> <p>↔ NE Killingsworth: Off-set intersection Curb extensions or median island</p> <p>NE Alberta: Curb extensions or median island</p> <p>NE Prescott: Crosswalk</p>	<p>NE Dekum: Crosswalk</p> <p>↔ NE Killingsworth: Off-set intersection- larger than 29th Ave Curb extensions or median island</p> <p>NE Alberta: Curb extensions or median island</p> <p>NE Prescott: Crosswalk</p>	<p>➡ NE Killingsworth: Curb extensions or median island</p> <p>NE Alberta: Curb extensions or median island</p> <p>NE Prescott: Crosswalk</p>
Serves Wide Range of Users	<p>➡ Neighborhood Greenway environment serves all users without out-of-direction travel</p>	<p>➡ Neighborhood Greenway environment serves all users without out-of-direction travel</p>	<p>➡ Neighborhood Greenway environment serves all users without out-of-direction travel</p>

NE/SE 20s Bikeway Project

DRAFT Alternatives Evaluation, A

NE Regents to 28th Ave/ I-84 Overpass

	NE 29th / 28th Ave	NE 26th Ave
Street Improvement Options	<p>North of Broadway Neighborhood Greenway</p> <p>South of Broadway 1) Bike Lanes: Broadway to Halsey: 5 ft Halsey to Wasco: 8ft buffered 2) Enhanced Shared Environment 3) Couplet Southbound: 26th Ave options Northbound: 28th Ave w/ 8 ft bike lane</p>	<p>North of Broadway Neighborhood Greenway</p> <p>South of Broadway Neighborhood Greenway</p>
Alignment	Direct to the south, if combined with 28 th Ave crossing of Broadway	Direct to the south, if combined with 26 th Ave crossing of Broadway
Destinations	Alameda ES Fred Meyer shopping center	Alameda ES Fred Meyer shopping center
Environment	<p>North of Broadway Traffic: Low volume, residential street environment</p> <p>Topography: 29th Ave north of Fremont very steep; other wise mostly flat</p> <p>South of Broadway Traffic: Much higher traffic volume environment; difficult sight distances at NE Halsey curve/ limited space for improvements</p>	<p>North of Broadway Traffic: Low volume, residential street environment</p> <p>Topography: 26th Ave north of Fremont provides easier grade climbing the ridge</p> <p>South of Broadway Traffic: low volume and speed</p>
Parking Impacts	<p>South of NE Broadway</p> <p>1) Bike Lanes: removal of parking both sides</p> <p>3) Couplet: removal of parking one side</p>	<p>NE Broadway crossing: Approximately 8 spaces (NE and SW corners)</p>
Crossing Issues	<p>NE Fremont: Curb extensions or median island</p> <p>NE Knott: Curb extensions or median island Off-set intersection</p> <p>NE Broadway: Existing signal</p>	<p>NE Fremont: Curb extensions or median island</p> <p>NE Knott: Curb extensions or median island</p> <p>NE Broadway: Medians with Rapid Flash Beacon</p>
Serves Wide Range of Users	<p>North of Broadway: Neighborhood Greenway South of Broadway</p> <p>1) Bike Lanes: Halsey curve- does not serve 'interested but concerned'</p> <p>2) Enhanced pavement markings: does not serve 'interested but concerned cyclist'</p> <p>3) Couplet: good range options to serve needs</p>	<p>North of Broadway Neighborhood Greenway</p> <p>South of Broadway 1) Neighborhood Greenway</p>

I-84 Overpass to SE Stark St

	28 th Ave Only		26 th Ave	30 th Ave	Couplet 28 th Ave + 30 th Ave	Corridor
Street Improvement Option(s)	A	Bicycle Lanes: (4 ft)	28 th Ave, freeway to NE Buxton: Cycle track, two-way on west side (8-12 ft) + 26 th Ave: Neighborhood Greenway Potential plaza/ ped improvement at Buxton	28 th Ave, freeway to NE Oregon: Bike lanes (5 ft) or Cycle track, two-way on west side (8-12 ft) + 30 th Ave: Neighborhood Greenway	28 th Ave (southbound): Buffered bike lane (8 ft) 30 th Ave (northbound & southbound): Neighborhood Greenway	28 th Ave: Enhanced pavement markings and traffic calming (fire friendly speed bumps, speed limit reduction, other?) 26 th or 30 th Ave: Neighborhood Greenway
Alignment	🟢 Direct		🔴 Out-of-direction travel required: +790 ft (thru da Vinci MS) compared to 28 th Ave (+15%) +1,890 ft (around da Vinci MS) (+36%)	🔴 Out-of-direction travel required: +755 ft compared to 28 th Ave (+14%) Aligns well with 29 th Ave south of Stark St, if used	↔ Southbound: direct Northbound: out-of-direction travel	↔ Depends on facility used
Destinations/ Local access	🟢 Direct access to commercial opportunities on 28 th Ave		🟢 Direct access to Central Catholic HS and da Vinci Middle School	↔ Oregon Park, Whole Foods Grocery	🟢 Southbound: direct local access, ↔ Northbound: indirect local access	↔ Improved but sub-optimal access to 28 th Ave destinations
Street Environment	🔴 Traffic: High traffic volumes (6,200 – 7,900) Collector street environment More turn conflicts compared to parallel route options		🟢 Traffic: Low traffic volumes, local residential street environment ↔ Requires creation of multi-use path through daVinci School site	🟢 Traffic: Low traffic volumes, local residential street environment	🟢 Traffic: Southbound: Option of high traffic/ good separated use environment or, Low traffic/ shared (Greenway) Northbound: Low traffic/shared	↔ Traffic: Option of either high traffic/ shared use environment with direct local access; or low traffic shared use environment with out-of-direction travel and indirect local access
Crossing Issues	🟢 All crossings use existing signals		🟢 28 th Ave: does not require crossing when combined with 26 th at Wasco (compared to 30 th Ave) NE Sandy: Existing signal NE Glisan: Median refuge island E Burnside: New crossing at 26 th Ave would enhance pedestrian circulation to adjacent businesses SE Stark: Off-set intersection Existing curb extensions	NE Sandy: Existing signal NE Glisan: Median refuge island E Burnside: ↔ HAWK signal Difficult to design crossing improvement-large off-set with on-site parking supply and access impacts to adjacent business. SE Stark: Off-set intersection Curb extensions or medians	See issues identified for 30 th Ave	See issues identified for 30 th Ave

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DRAFT Alternatives Evaluation: B

	28 th Ave Only		26 th Ave	30 th Ave	Couplet 28 th Ave + 30 th Ave	Corridor
Parking Impacts	A	Removal of all parking on west side- 101 spaces	28 th Ave, freeway to NE Buxton: Parking removed from both sides*: 53 spaces * Except NE Sandy to NE Oregon east side	28 th Ave, freeway to NE Oregon: Parking removed from both sides*: 21 spaces * Except NE Sandy to NE Oregon east side	28 th Ave: West side: removal of all parking: 101 spaces East Side, north of NE Oregon: remove 7 spaces	Depends on which parallel route used: 26 th Ave: 53 spaces Or 30 th Ave: 21 spaces
	B	Removal both sides: 230 spaces				
	C	Removal all parking on west side: 101 spaces (possibly more)				
	D	No impact				
Serves Wide Range of Users	A	🔴 Substandard separated facility width in a high traffic environment, adjacent to parking one side	↔ <ul style="list-style-type: none"> Utilizes Neighborhood Greenway environment for the 'interested but concerned' Out-of-direction travel and in-direct local access to destinations 	↔ <ul style="list-style-type: none"> Utilizes Neighborhood Greenway environment for the 'interested but concerned' Out-of-direction travel and in-direct local access to destinations 	🟢 ↔ <ul style="list-style-type: none"> Southbound: Provides range of good options Northbound: Neighborhood Greenway environment, but with out-of-direction travel and in-direct local access to destinations 	↔ Improves conditions on 28 th Ave, but still not suitable for 'interested but concerned' Provides alternative route suitable for 'interested but concerned'- with in-direct local access and out-of-direction travel
	B	🟢 High quality separated facility				
	C	🔴 Substandard width				
	D	🔴 Shared use in high traffic volume environment does not serve 'interested but concerned'				
Other	B	🔴 Increased design speed of roadway with all parking removed (?)	<ul style="list-style-type: none"> Requires multi-use path through da Vinci Middle School site, subject to Portland Public Schools approval 		<ul style="list-style-type: none"> 🔴 Potentially confusing for users, wrong way riding (?) 	

SE Stark St to SE Harrison St

	SE 26 th Ave	SE 28 th Ave	SE 29 th Ave
Street Improvement Option	Neighborhood Greenway	Neighborhood Greenway	Neighborhood Greenway
Alignment	<p>📍 Direct/ depends Best if connected to 26th Ave option to north and 26th Ave to south</p>	<p>📍 Direct /depends Best if connected to 28th Ave options to north and either 28th Ave or 26th Ave to south</p>	<p>📍 Direct/ depends Best if connected to 30th Ave option to north and 28th Ave or 26th Ave to south</p>
Destinations/ Local access	<p>📍 Hawthorne Safeway grocery store</p>	<p>📍 Same</p>	<p>📍 Same</p>
Street Environment	<p>📍 Traffic: Low volumes, residential environment</p> <p>Topography: Stark to Belmont: moderately steep hill</p> <p>Belmont to Hawthorne: moderately steep hill</p>	<p>📍 Traffic: Low volumes, residential environment</p> <p>Topography: Stark to Belmont: moderately steep hill</p> <p>Belmont to Hawthorne: moderately steep hill</p>	<p>📍 Traffic: Low volumes, residential environment</p> <p>📍 Topography: Stark to Belmont: flat</p> <p>Belmont to Hawthorne: moderately steep hill</p>
Crossing Issues	<p>SE Stark St: Existing curb extensions Off-set intersection</p> <p>SE Belmont: Median refuge island</p> <p>SE Hawthorne: Uses existing traffic signal at 27th Ave</p>	<p>SE Stark St: Existing traffic signal</p> <p>SE Belmont: Median refuge island</p> <p>SE Hawthorne: Uses existing traffic signal at 27th Ave</p>	<p>SE Stark St: Curb extensions Off-set intersection</p> <p>SE Belmont: Median refuge island</p> <p>SE Hawthorne: HAWK signal with existing curb extensions</p>
Parking Impacts	<p>SE Belmont crossing: Minor</p>	<p>SE Belmont crossing: Minor</p>	<p>SE Belmont crossing: Minor</p> <p>SE Hawthorne: Minor</p>
Serves Wide Range of Users	<p>📍 • Neighborhood Greenway environment serves all users without out-of-direction travel</p>	<p>📍 • Neighborhood Greenway environment serves all users without out-of-direction travel</p>	<p>📍 • Neighborhood Greenway environment serves all users without out-of-direction travel</p> <p>• Easier topography than 26th Ave or 28th Ave options</p>

SE Harrison St to Steele St

	26 th Ave to Gladstone + 28 th Ave south	28 th Place/Ave + 28 th Ave south	28 th Place/ Clinton/26 th Ave North Connection Option	Couplet 26 th Ave + 28 th Ave	Corridor 26 th Ave + 28 th Ave
Street Improvement Option(s)	<p>A ALL OPTIONS- Harrison to Division: Neighborhood Greenway</p> <p>26th Ave, Division to Gladstone: Bike Lanes (4 ft each)</p> <p>28th Ave, Gladstone to Steele: Existing Bike lanes (4-5 ft)</p> <p>B 26th Ave, Division to Gladstone: Bike Lanes, Buffered/Cycle Track: (8 ft each)</p> <p>28th Ave, Gladstone to Steele: Existing Bike Lanes (4 ft)</p> <p>C 26th Ave, Division to Gladstone: Cycle Track, two-way, west side: (8 ft)</p> <p>28th Ave, Gladstone to Steele: Existing Bike Lanes (4 ft)</p> <p>D Enhanced Shared Facility</p> <p>26th Ave, Division to Taggart: Traffic calming with enhanced pavement markings, existing to south</p>	Neighborhood Greenway	Neighborhood Greenway	<p>Southbound: 26th Ave</p> <p>Harrison to Division: Greenway</p> <p>Division to Taggart :</p> <p>1: Buffered Bike Lane (8 ft)</p> <p>2: Enhanced Shared Facility</p> <p>South of Taggart: Buffered Bike Lane (8 ft)</p> <p>3: to Gladstone</p> <p>4: to Steele/ Reedway path</p> <p>Northbound: 28th Ave</p> <p>Harrison to Holgate: Greenway</p> <p>Holgate to Steele: Bike Lane Buffered (8 ft)</p>	<p>26th Ave:</p> <p>Harrison to Division: Greenway</p> <p>Division to Taggart : Enhanced Shared Facility</p> <p>Option: 28th Place/Clinton/ 26th Ave- Greenway</p> <p>Taggart to Gladstone: Existing bike lanes (4 ft)</p> <p>28th Ave:</p> <p>Harrison to Holgate: Greenway</p> <p>Holgate to Steele: Existing bike lanes (4-5 ft)</p>
Alignment	Direct Best if connected with 26 th Ave alignment option to the north	Direct Best if connected to 29 th Ave alignment option to the north	Direct Best if connected to 29 th Ave alignment option to the north	Direct	Direct
Destinations/ Local access	🟢 Direct access to commercial opportunities on 26 th Ave, and Cleveland HS	🟢 Direct access to Hosford MS and Cleveland HS 🔴 In-direct access to commercial destinations	↔ Direct access to Clinton/ 26 th intersection Indirect access to businesses on 26 th between Division and Clinton	↔ Depends on direction travel	Options cover wide range of destinations
Street Environment	<p>🔴 Traffic:</p> <p>North of Division: Medium traffic volumes</p> <p>South of Division: High traffic volumes, collector street environment</p> <p>🔴 Transit: Taggart to Powell</p> <p>🔴 Topography: moderately steep hill between Harrison and Division</p>	<p>🟢 Traffic:</p> <p>Low traffic volumes, local residential street environment</p> <p>🔴 Surface:</p> <p>Poor condition concrete streets north of Division</p> <p>🔴 Topography:</p> <p>Steep hill between Harrison and Division</p>	<p>🟢 Traffic:</p> <p>Low to moderate traffic volumes, local residential street environment</p> <p>🔴 Surface:</p> <p>Poor condition concrete streets north of Division</p> <p>🔴 Topography:</p> <p>Steep hill between Harrison and Division</p>	<p>Traffic:</p> <p>🟢 Southbound: Option of high traffic/ good separated use environment, or low traffic/shared environment</p> <p>Northbound:</p> <p>🟢 Low traffic/shared environment</p>	See 26 th Ave to Gladstone + 28 th Ave south and 28 th Place/Ave

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DRAFT Alternatives Evaluation, D

		26 th Ave to Gladstone + 28 th Ave south	28 th Place/Ave + 28 th Ave south	28 th Place/ Clinton/26 th Ave North Connection Option	Couplet 26 th Ave + 28 th Ave	Corridor 26 th Ave + 28 th Ave	
Crossing Issues		<p>🟢 All crossings signalized or 4-way stops</p>	<p>Division/ 28th Place: Existing pedestrian signal</p>	<p>Division/ 28th Place: Existing pedestrian signal</p>	<p>Division/ 28th Place: Existing pedestrian signal</p>	<p>Division/ 28th Place: Existing pedestrian signal</p>	
	A	<p>🔴 Powell: Very narrow bike lane widths (3 ft)</p>	<p>28th Ave/ Powell: Contingent on ODOT approval</p> <p>28th Ave/Holgate: Diversion</p>	<p>🔴 Powell/ 26th: Very narrow bike lane widths (3 ft)</p>	<p>28th Ave/ Powell: Contingent on ODOT approval</p> <p>🟢 26th Ave/Powell: Conditions improved over existing</p> <p>28th Ave/Holgate: Diversion</p>	<p>28th Ave/ Powell: Contingent on ODOT approval</p> <p>🔴 26th / Powell: Very narrow bike lane widths (3 ft)</p> <p>28th Ave/Holgate: Diversion</p>	
Parking Impacts	A	<p>Removal of 24 spaces (west side north of Taggart)</p>	<p>No parking removal.</p>	<p>No parking removal</p>	1	<p>Division to Taggart: 24 spaces</p>	<p>No parking removal</p>
	B	<p>Removal of both sides, ~136 spaces</p>			2	<p>No parking removal</p>	
	C	<p>Removal of 24 spaces (west side north of Taggart)</p>			3	<p>No parking removal</p>	
	D	<p>None (maintaining existing bike lanes)</p>			4	<p>Gladstone to Steele: ~69 spaces</p>	
Serves Wide Range of Users	A	<p>🔴 Sub-standard separated facility in a high traffic environment</p>	<p>↔</p> <ul style="list-style-type: none"> Provides Neighborhood Greenway environment for 'interested but concerned' cyclist . In-direct access to local destinations 	<p>↔</p> <ul style="list-style-type: none"> Provide Neighborhood Greenway environment for 'interested but concerned' cyclist In-direct access to local destinations. 	<p>🟢</p> <ul style="list-style-type: none"> Couplet provides a very good range of options. 26th Ave South of Taggart: Significantly improves existing bike lanes width conditions. (if Option 4 chosen:) 28th Ave, Holgate to Schiller: Significantly improves existing bike lane width conditions. 	<p>↔ 🔴</p> <ul style="list-style-type: none"> Good range of options. 26th Ave bike lanes substandard 	
	B	<p>🟢 High quality separated facility</p>					
	C	<p>🔴 Sub-standard separated facility in a high traffic environment</p>					
	D	<p>🔴 Shared use in high volume environment does not serve 'interested but concerned' user</p>					
Other			<p>• 28th Ave/ Powell crossing: Contingent on ODOT approval</p>		<p>• 28th Ave/ Powell crossing: Contingent on ODOT approval</p> <p>• May be confusing for users- wrong way travel (?)</p>	<p>• 28th Ave/ Powell crossing: Contingent on ODOT approval</p>	

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DRAFT Alternatives Evaluation: E

SE Woodstock Blvd to 45th Ave

	SE 28 th Ave/ 27 th Ave/ Crystal Springs	SE Woodstock/ SE 32 nd Ave Crystal Springs Blvd	SE Woodstock/ Reed College Place/ Crystal Springs Blvd	Couplet 27 th Ave + 32 nd or Reed C Pl
Street Improvement Option(s)	SE 28 th Ave, Woodstock to Bybee: Option A) Existing bike lanes Option B) Buffered bike lanes SE 27 th Ave-Crystal Springs: Neighborhood Greenway	SE Woodstock: Existing bike lanes SE 32 nd Ave-Crystal Springs: Neighborhood Greenway	SE Woodstock: Existing bike lanes SE Reed College Pl- Crystal Springs Blvd: Neighborhood Greenway	Southbound: SE 28 th Ave/ 27 th Ave/ Crystal Springs: Buffered bike lanes Northbound: SE Woodstock/ SE 32 nd Ave or Reed College Place: Existing bike lanes and Neighborhood Greenway
Alignment	📍 Direct	📍 Direct Slightly shorter than Master Plan alignment	📍 Direct Slightly shorter than Master Plan alignment	↔ Depends on direction travel
Destinations/ Local access	Connection to Bybee Bridge- access into Sellwood/Westmoreland via Bybee	Duniway ES	📍 Duniway ES	Depends on direction travel
Street Environment	Traffic: 🔴 SE Woodstock to Bybee: High traffic volumes on collector street; curving alignment, with existing bike lanes SE 27 th Ave/ Crystal Springs Blvd: Medium traffic volumes on local residential street Transit: 🔴 SE Woodstock to Bybee: #19 Line	Traffic: SE Woodstock to 32 nd Ave: High traffic volumes with bike lanes SE 32 nd Ave to Crystal Springs: 📍 Low volumes, residential environment Transit: 🔴 SE Woodstock to Crystal Springs: #19 Line	Traffic: SE Woodstock to Reed College Place: High traffic volumes with bike lanes SE Reed College Place to Crystal Springs: 📍 Low volumes, residential environment	See comments for preceding alternatives
Crossing Issues	SE Bybee/ 27 th Ave: Median with rapid flash beacon			SE Bybee/ 27 th Ave: Median with rapid flash beacon
Parking Impacts	🔴 Option A): No parking removal Option B): SE 28 th Ave, Woodstock to Bybee: Remove west side, Tolman to Martins	No parking removal	No parking removal	🔴 Southbound: 27 th Ave/ Crystal Springs: remove one side
Serves Wide Range of Users	↔ • South of Woodstock: high traffic with curves 🔴 • South of Bybee: requires sharing roadway in medium traffic environment	📍 • Utilizes Neighborhood Greenway environment	📍 • Utilizes Neighborhood Greenway environment	↔ • South of Woodstock: high traffic with curves