



In the middle of the road . . .

A low-angle shot of a blue bicycle against a clear blue sky. The bicycle features chrome handlebars with a black grip, a black saddle on a silver seat post, and a blue frame. The text "SPU Bike Safety Program" is overlaid in the center-right of the image.

# SPU Bike Safety Program



# *Objective*

Reduce potential risks  
associated with SPU  
assets in the street  
R-O-W.



# *Four Areas of Focus*

## #1 - Bike Routes

Methodically addressing potential safety issues associated with SPU facilities along designated bike routes.

## #2 - Complaints

Responding to SDOT & Citizen Service Bureau complaints and monitoring *Bikewise.org* reporting.

## #3 - SDOT Projects

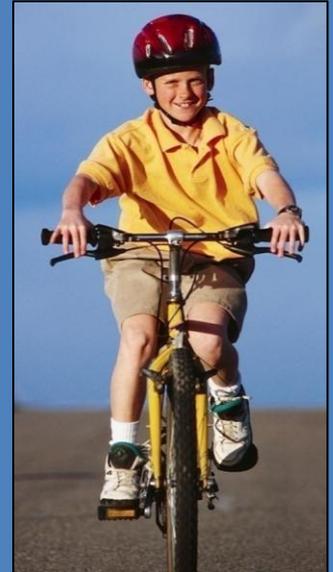
Funding replacement of non-standard grates in conjunction with SDOT paving and bike improvement projects.

## #4 - SPU Construction

Requiring SPU crew/contractor compliance with City standards for detours, plating and patching.



# Area of Focus #1 – Bike Routes



# Step #1 - Survey SPU Assets

A. Prioritized survey work by greatest risk of bike-vehicle conflict.  
Seattle Bike Map (*Spring 2008 version*) was our starting point.

## ***PHASE 1 Survey (Spring 2009 - \$92k)***

- Downtown
- Major Bicycle “Commute” routes (identified w/SDOT)
- All designated Bike Lanes
- All designated Sharrows
- All designated Arterial Streets – commonly used by bicycles



## ***PHASE 2 Survey (Spring 2010 - \$62k)***

- All designated Non Arterial Streets – commonly used by bicycles
- All designated Shared Use Trails, Pedestrian Pathways



# Step #1 - Survey SPU Assets

## B. Created database with attributes & photos



Shape	Flno	N-8398	E-8398	Bike_lane_type	Feature_t	Grate_style	Grate_dim	Grate_cond	Fix_no	Comments
Point	2422	194247.1580	1283602.414	SH	MH	R	2.2	G	2422	
Point	2423	194259.8860	1283595.850	SHX	MH	R	2.2	G	2423	
Point	2424	194224.0880	1283615.401	SH	MH	R	2.2	G	2424	
Point	2425	194245.3220	1283840.063	SH	WMH	R	1.7	G		NO PIX
Point	2426	194207.3580	1283848.495	CT	INL	VAN	2.6X1.3	G	2426	
Point	2427	194204.1680	1283869.500	TL	CB	S	1.7	D	2427	SLOTTED
Point	2428	194255.2290	1283933.503	CT	CB	VAN	2.6X1.3	G	2428	
Point	2429	194252.0130	1283914.300	CTX	WMH	R	2.3	G	2429	
Point	2430	194262.4060	1283897.823	TLX	MH	R	1.7	G	2430	
Point	2431	194211.8720	1284273.264	SH	MH	R	2.2	G	2431	
Point	2432	194218.1950	1284429.402	SH	TMH	R	2.7	G	2432	
Point	2433	194236.2280	1284417.582	DL	WMH	R	1.7	G	2433	
Point	2434	194201.1940	1284711.328	DI	MH	R	2.1	G	2434	



# Step #2 - Identify Potential Risks

## A. Evaluated SPU structure types and locations



- Identified over 17 different, existing structure types.
- Types **E**, **F**, **FAB**, **SB-sandbox** and **S-slotted** may present a safety concern for bicyclists.
- Type **VAN** or “Vaned” is the City’s current standard.

# Step #2 – Identify Potential Risks

## B. Evaluated the condition of structures and adjacent pavement

- Broken
- Missing
- Worn (slick)
- Clogged
- Sunken
- Raised
- Failing



# SPU Survey Results

## Phase 1 (RED)

- 198 miles, over 11,000 assets
- 700 (6% grate type issues, broken, missing)
- 1146 (10% worn, clogged)
- 1711 (15% sunken, raised)

## Phase 2 (LT ORANGE)

- 115 miles, over 8,200 assets
- 304 (4% grate type issues, broken, missing)
- 300 (4% worn, clogged)
- 131 (2% sunken, raised)



# Step #3 - Prioritize Replacements

## A. East Marginal Way pilot (2009, \$2k)

- New grate design
- Replaced 11 grates



## B. Tier 1 priorities (2010, \$82k)

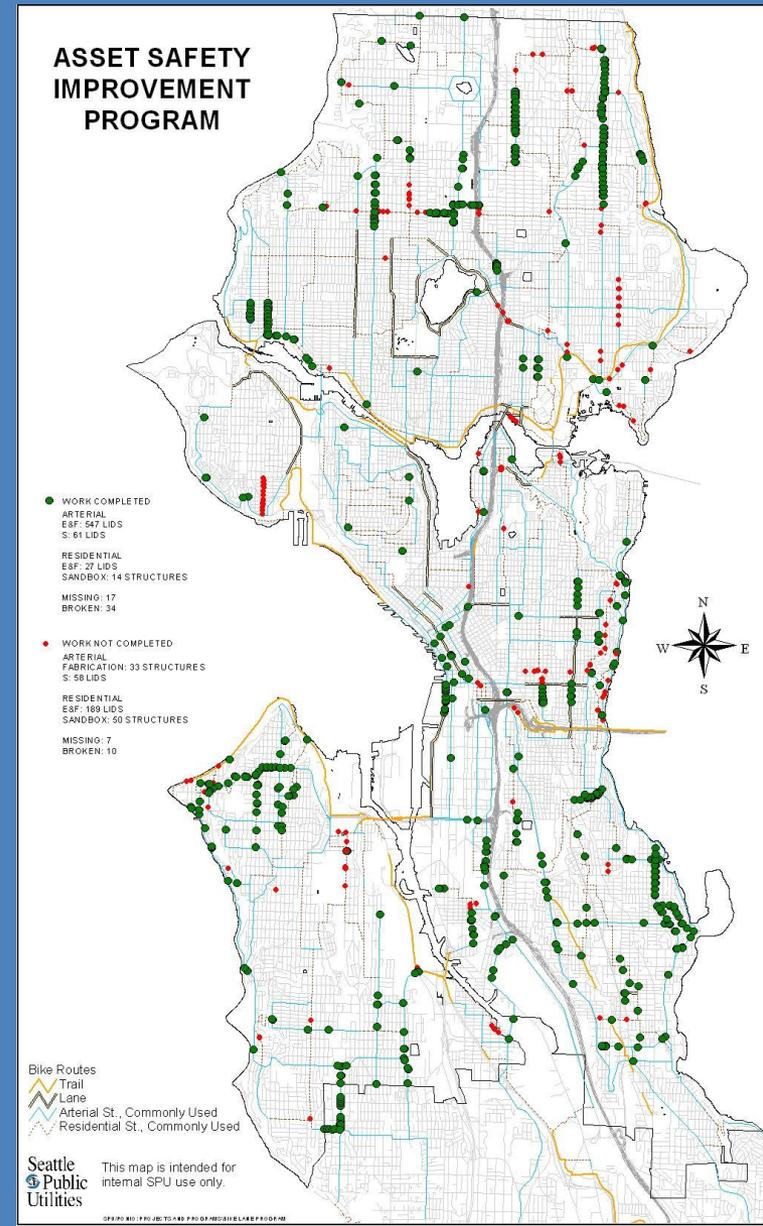
- Replacing certain grate types, broken, missing
- Map → Green = replaced; Red = to do

**\*\*Replaced 686 grates, 14 structures to date\*\*  
(67% of total identified so far)**



## C. Clogged grates

- Addressing thru NPDES maintenance



# *Next Steps – SPU Bike Route Work*

*(2011 forward)*

A. Complete Tier 1 priorities (\$160k)

- remaining 33% (297 grates, 50 structures) from Phase 1 and 2 surveys

B. Begin Phase 3 survey (\$62k)

- new bike routes/striping, City arterials, bus routes and major intersections.

C. Initiate Tier 2 replacements

- all worn, failing assets, associated paving issues (sunken, raised, spalling)



# Area of Focus #2 – Complaints

- SPU is replacing assets that are SPU's and that haven't been replaced.
- Certain issues more difficult to address. Work with SDOT towards solutions.

## Next Steps

- Create SPU web page about our Bike Safety Program and “Where to Report Problems”. - SDOT 684-7583 or [walkandbike@seattle.gov](mailto:walkandbike@seattle.gov)
- Continue periodic monitoring *Bikewise.org* reporting.



# Area of Focus #3 – SDOT Projects

- SPU is funding \$60k/yr in replacement of non-standard drainage grates as part of SDOT paving and bicycle improvement projects.
- Project locations over the past year have included:
  - ✓ South Spokane (23<sup>rd</sup> and Beacon)
  - ✓ 15<sup>th</sup> Ave S (S. College and S. Columbian Way)
  - ✓ Dearborn
  - ✓ Ravenna and 22<sup>nd</sup> Ave NE (in the works)

## Next Steps

- Continue with current funding efforts.



# Area of Focus #4 – SPU Construction

- SPU requires crew and contractor compliance with City specifications for work in the street R-O-W.
- Proactively responding to issues that arise.

## Next Steps

- Continue with current efforts.



*QUESTIONS?*

