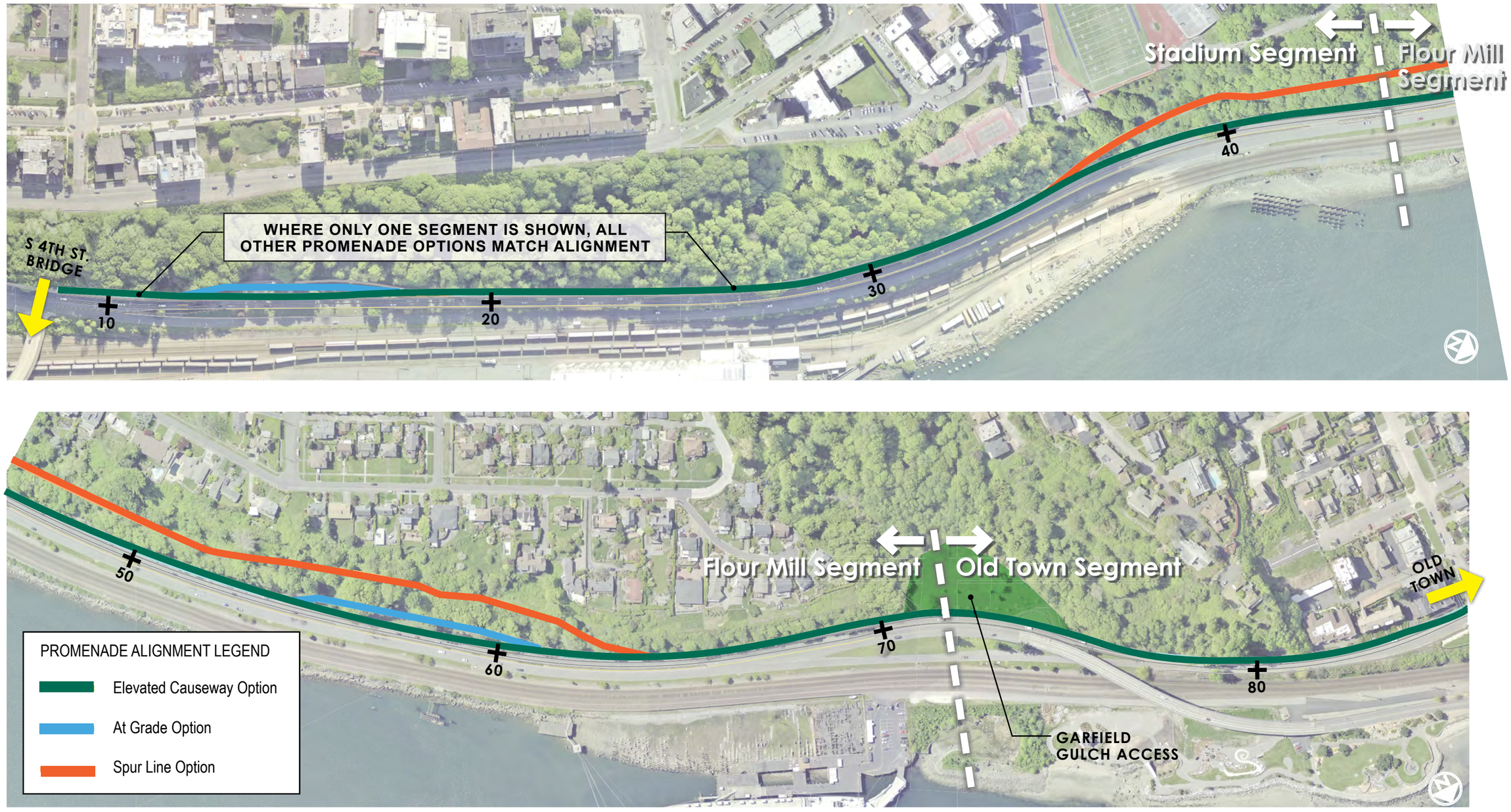
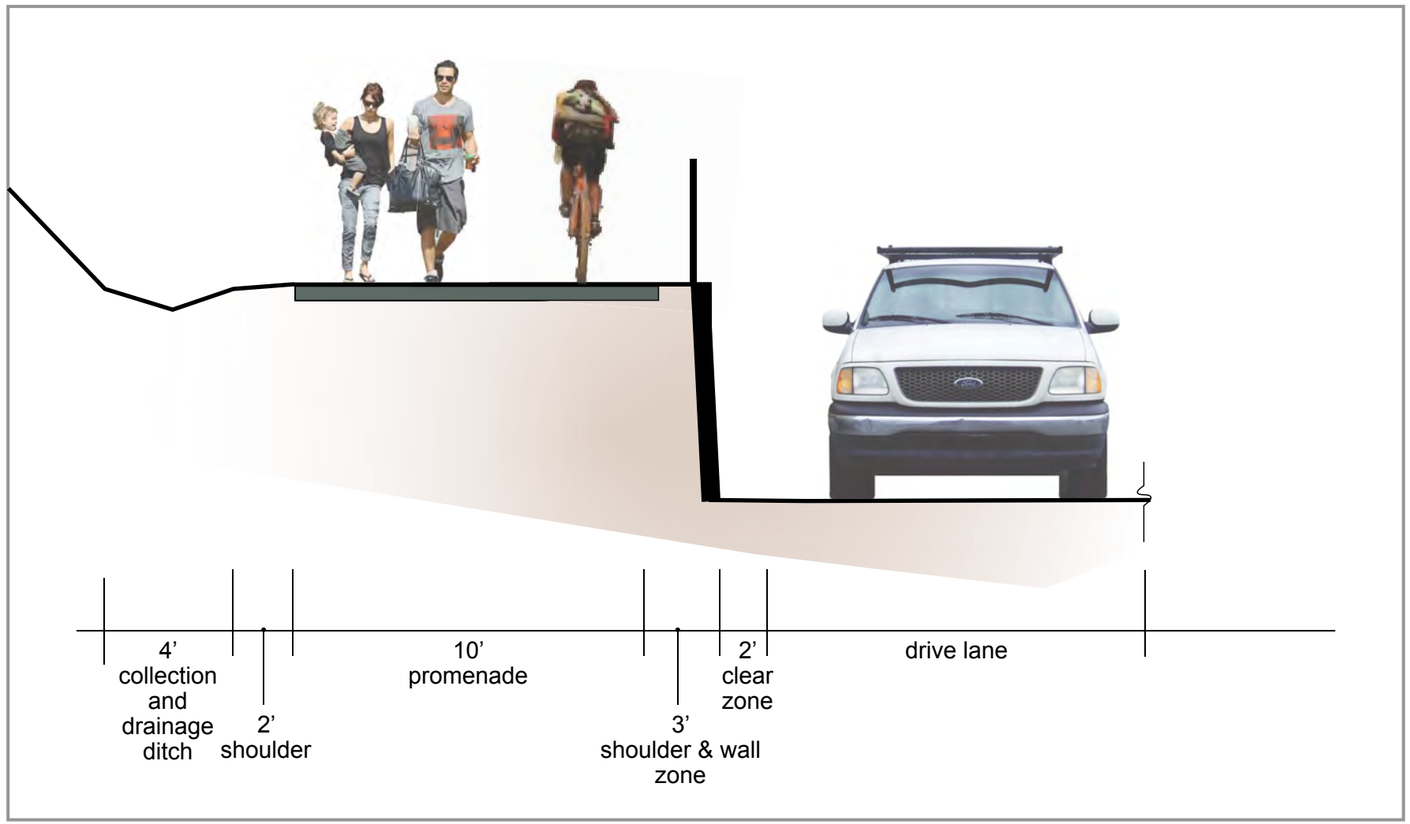
Schuster 2018 Alignment Presentation
6/5/2018

Plan View with Promenade Segments



Typical Promenade Section



REQUIREMENTS

- ADA GRADE GOAL LESS THAN 5%
- AT GROUND SURFACE AT 4TH STREET BRIDGE
- AT GROUND SURFACE ACROSS GARFIELD GULCH
- AT GROUND SURFACE INTO OLD TOWN
- BNSF REQUIREMENT MSE WALLS WILL REQUIRE VARIANCE
- BNSF CLEARANCE FOR OVERCROSSINGS 24 FEET ABOVE TRACKS

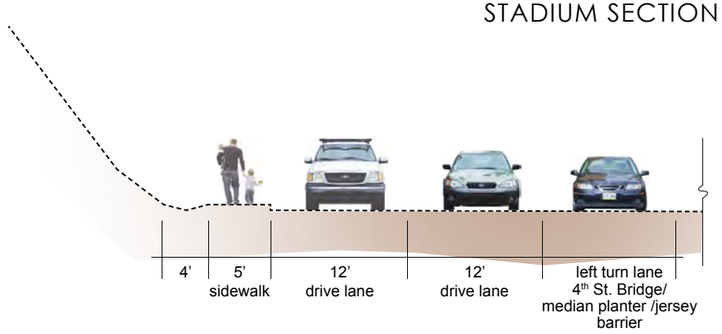
PRELIMINARY GEOTECHNICAL GUIDELINES

- MINIMIZE CUTS ALONG SLOPE IN STADIUM WAY SEGMENT
- 1H:1V TEMPORARY CUT ALLOWABLE FOR WALL CONSTRUCTION
- MAXIMUM SLOPE LENGTH WITHOUT BENCH SIMILAR TO EXISTING
- ASSUME PLANNED CUTS NO STEEPER THAN EXISTING
- MAINTAIN SIMILAR FACTOR OF SAFETY FOR SLOPE STABILITY

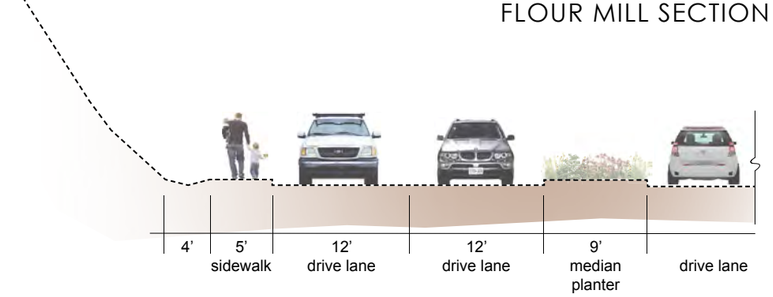
Elevated Causeway Option

EXCAVATED SOIL VOLUME 2,925 TRUCKS OR 4.3 FEET IN TACOMA DOME
IMPORTED SOIL VOLUME 3,425 TRUCKS OR 5.1 FEET IN TACOMA DOME

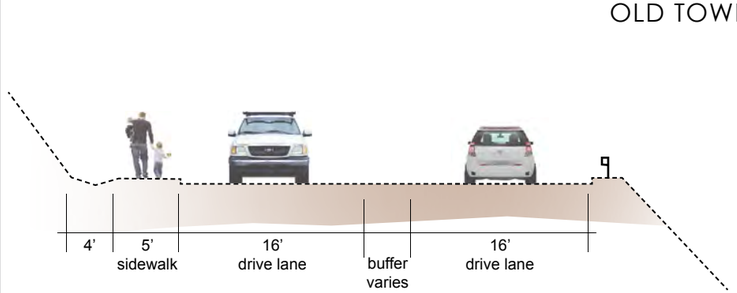
EXISTING
STADIUM SECTION



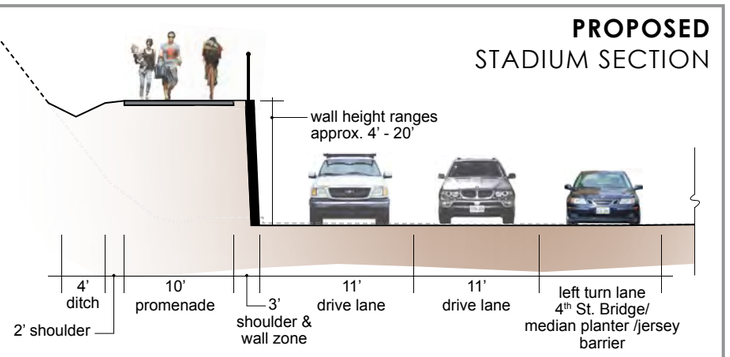
EXISTING
FLOUR MILL SECTION



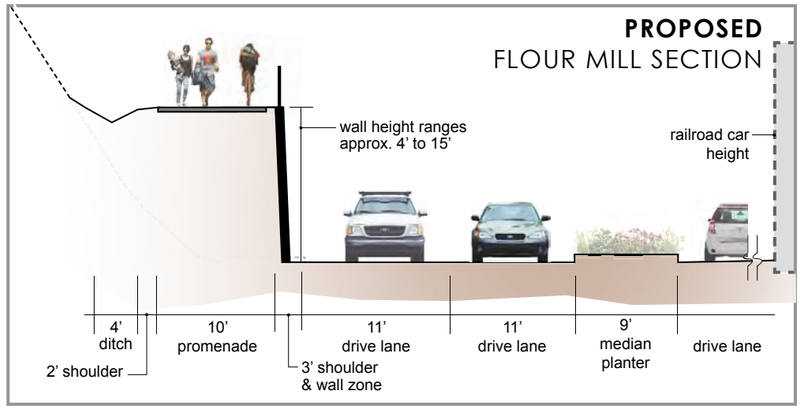
EXISTING
OLD TOWN



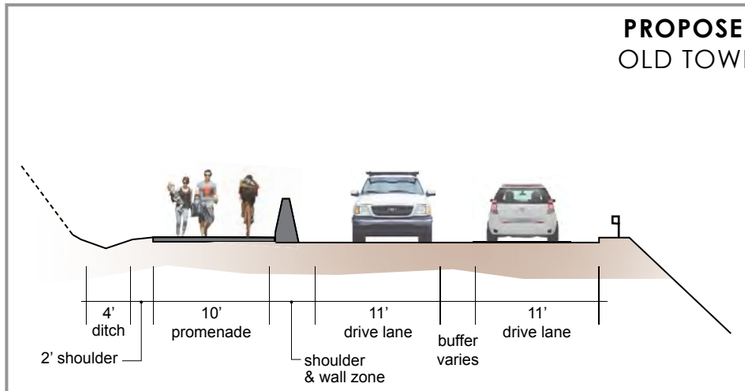
PROPOSED
STADIUM SECTION



PROPOSED
FLOUR MILL SECTION



PROPOSED
OLD TOWN

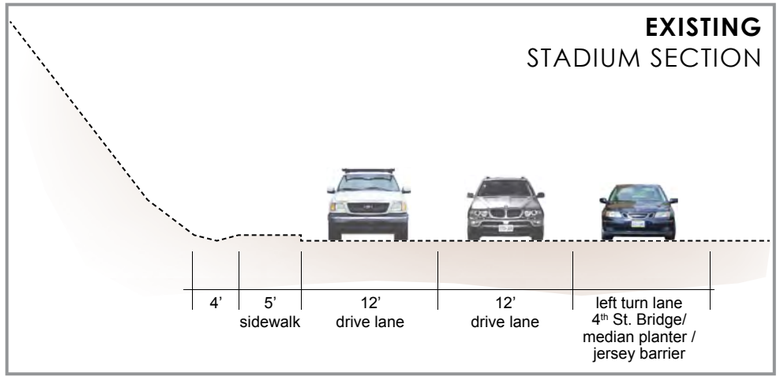


At-Grade Option

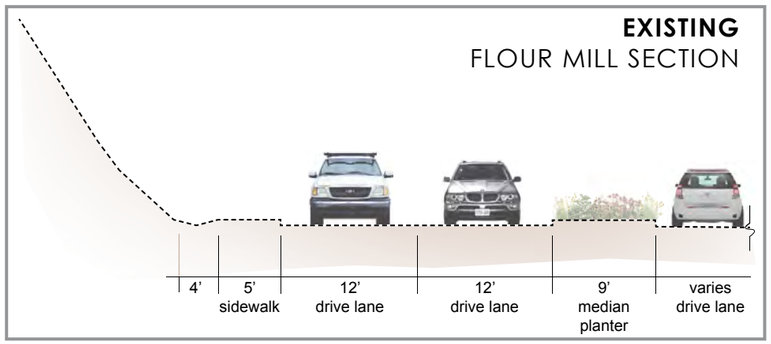
EXCAVATED SOIL VOLUME 1,975 TO 6,525 TRUCKS OR 4.3 TO 9.6 FEET IN TACOMA DOME

IMPORTED SOIL VOLUME 1,270 TRUCKS OR 2 FEET IN TACOMA DOME

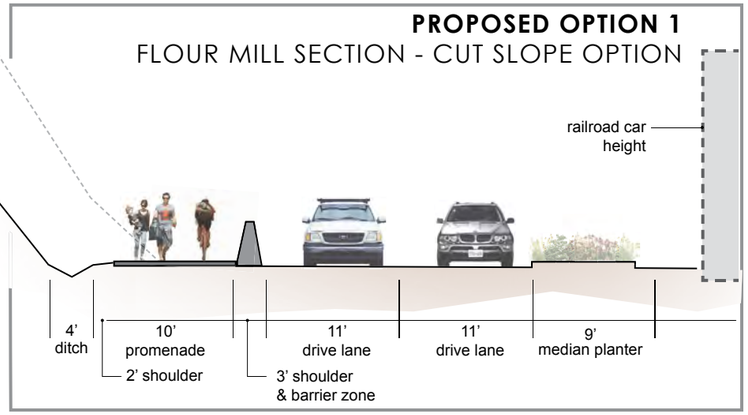
EXISTING
STADIUM SECTION



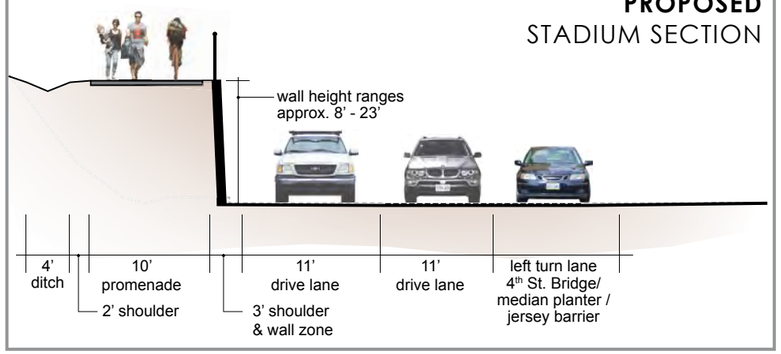
EXISTING
FLOUR MILL SECTION



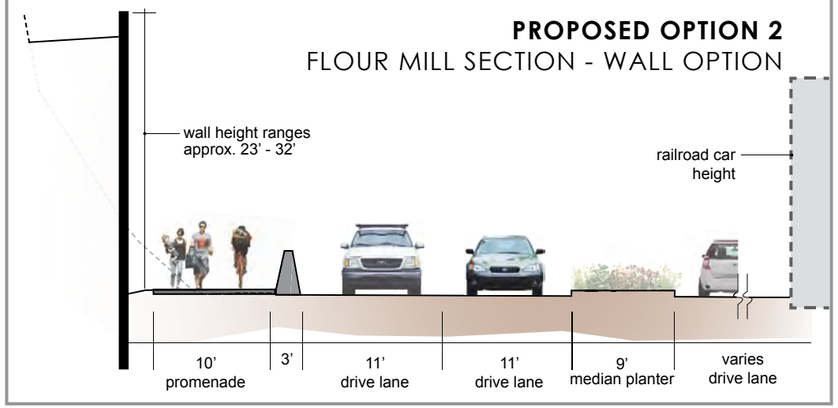
PROPOSED OPTION 1
FLOUR MILL SECTION - CUT SLOPE OPTION



PROPOSED
STADIUM SECTION



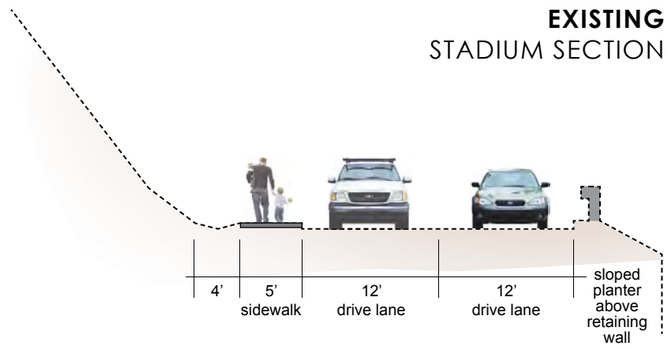
PROPOSED OPTION 2
FLOUR MILL SECTION - WALL OPTION



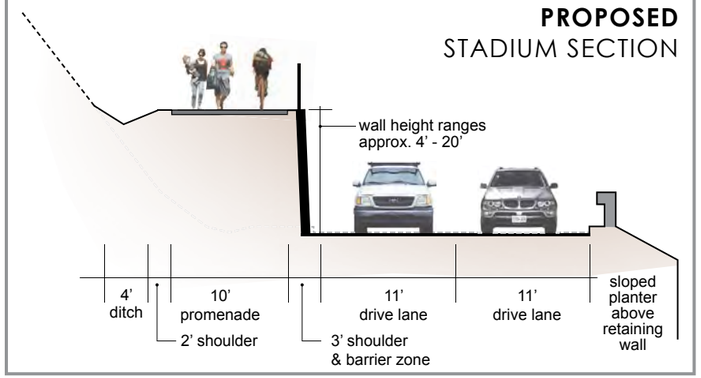
Old Spur Line Option

EXCAVATED SOIL VOLUME 4,870 TRUCKS OR 7.2 FEET IN TACOMA DOME
IMPORTED SOIL VOLUME 1,448 TRUCKS OR 2.2 FEET IN TACOMA DOME

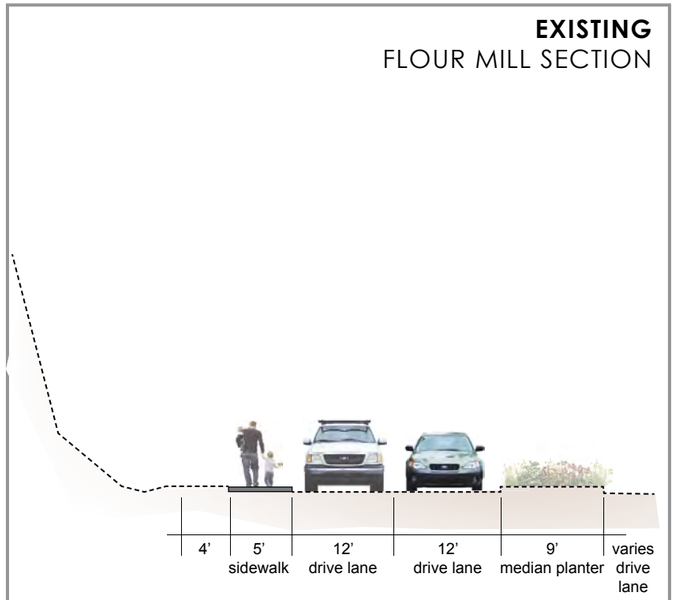
EXISTING
STADIUM SECTION



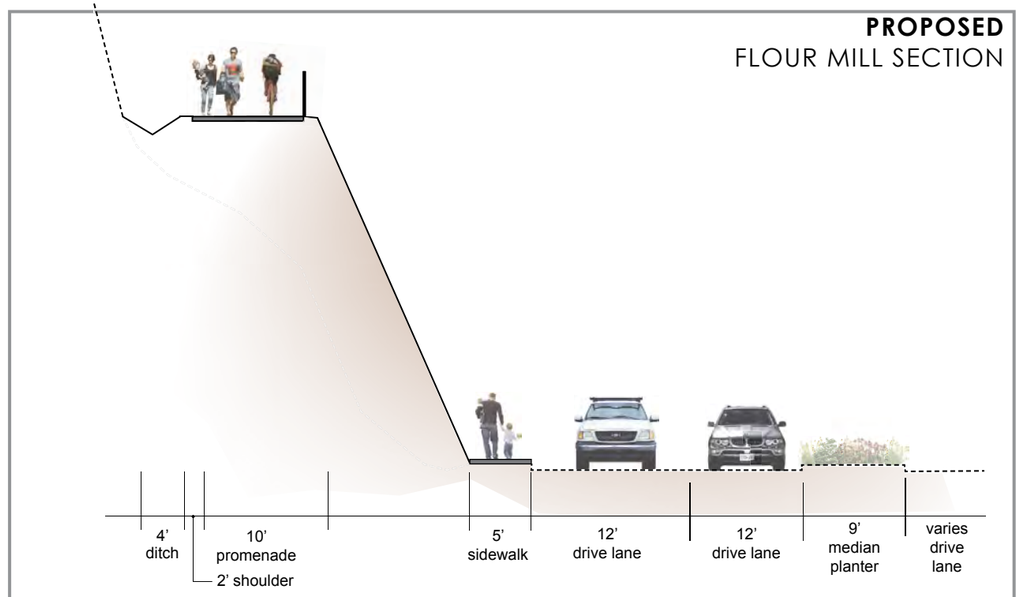
PROPOSED
STADIUM SECTION

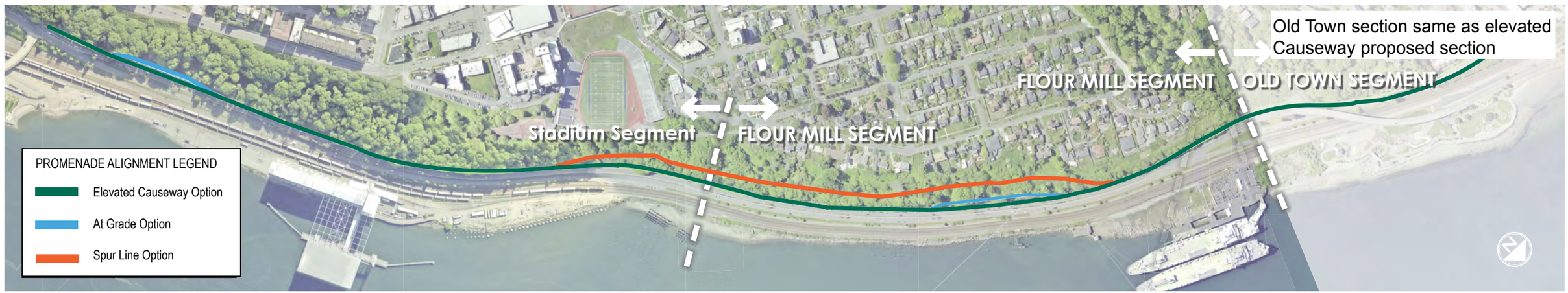


EXISTING
FLOUR MILL SECTION

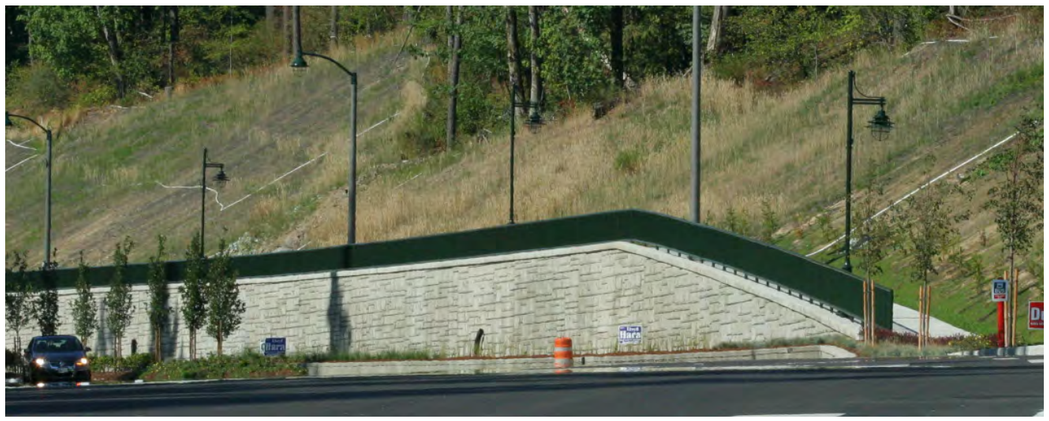


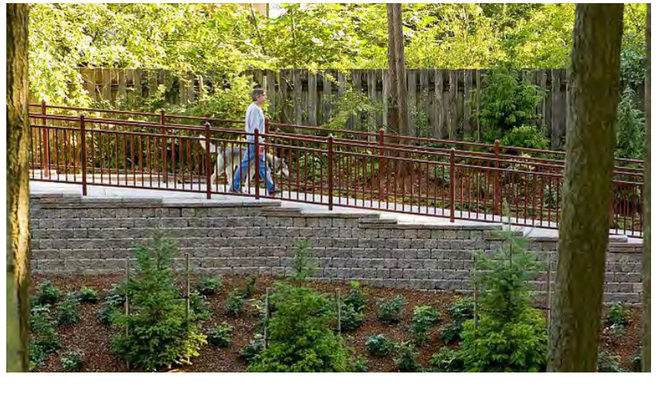
PROPOSED
FLOUR MILL SECTION



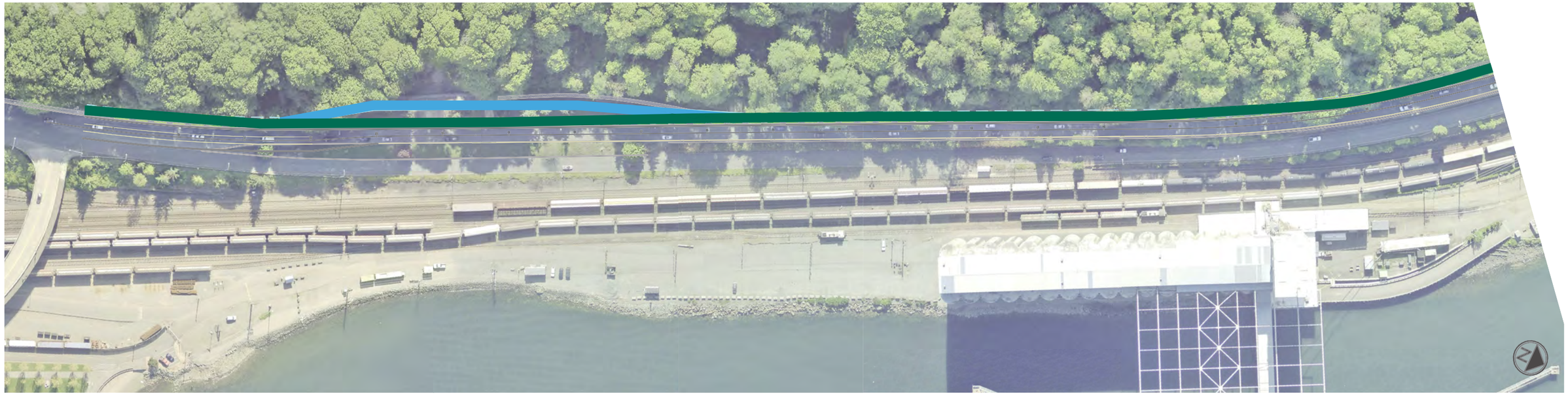


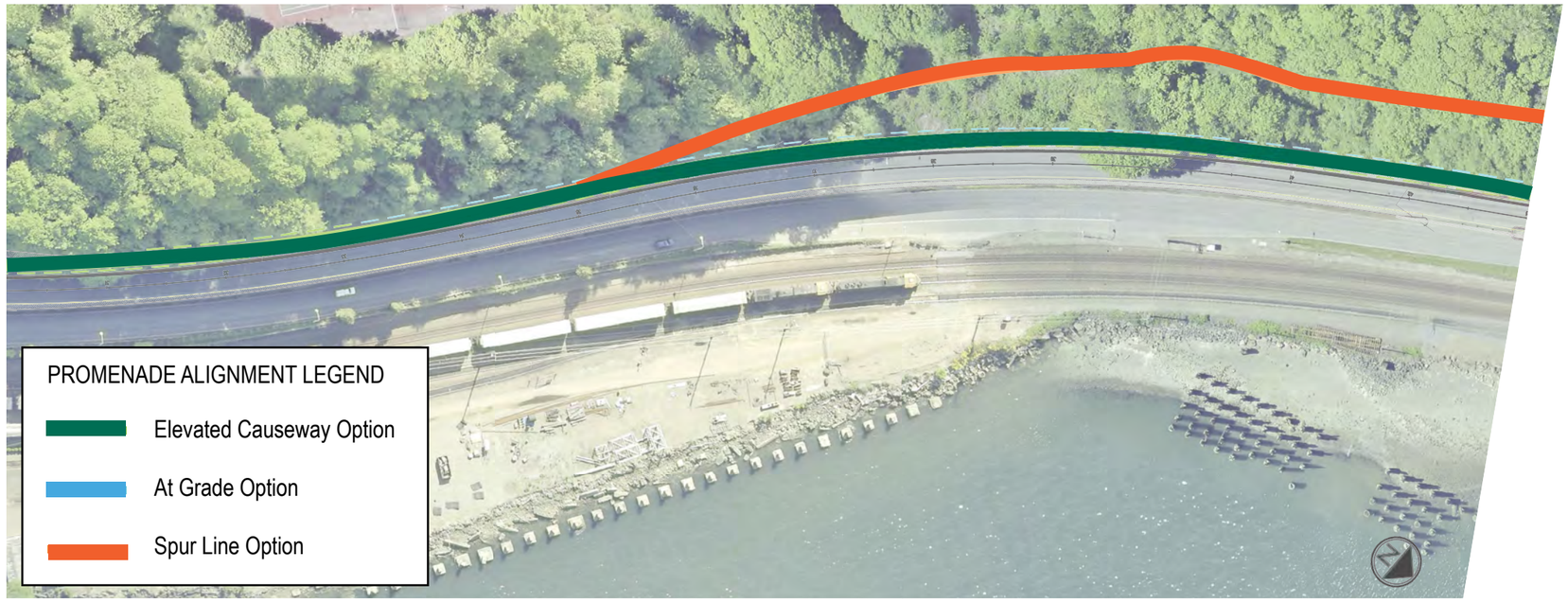
Example Photos





Stadium Segment





STADIUM SEGMENT NOTES:

ALL ALTERNATIVE ALIGNMENTS INCLUDE:

- REQUIREMENT TO BE AT EXISTING GRADE AT SE 4TH ST.
- NO IMPACT TO EXISTING ROADWAY TO MAINTAIN LEFT TURN LANE AND 2 THROUGH LANES AT SE 4TH STREET.
- NO IMPACTS TO EXISTING SLOPE STABILITY.
- UTILIZE TWO AREAS WHERE EXISTING SIDEWALK IS SEPARATED FROM ROAD.
- ACCESS TO LOWER STADIUM BOWL AREA IS IMPACTED. NEW ACCESS FEASIBLE AT STATION 31.

ELEVATED ALTERNATIVE

- NORTH OF STATION 18 ELEVATED PROMENADE UP TO ABOUT 14 FEET IN HEIGHT.

AT-GRADE ALTERNATIVE

- CONFIGURATION IS SAME AS ELEVATED ALTERNATIVE UP TO STATION 31 DUE TO LANDSLIDE, SOIL CREEP, AND DRAINAGE CONCERNS.
- BEYOND STATION 31 TIED BACK SOLDIER PILE WALL, HEIGHT UP TO 32 FEET.

ROAD DIET ALTERNATIVE (16-FEET LANE)

- BEGINS AFTER STATION 18.
- MINIMAL IMPACTS TO EXISTING SLOPE.

SPUR LINE ALTERNATIVE

- BEGINS AFTER STATION 31.
- SIMILAR TO ELEVATED ALTERNATIVE BUT INCREASES IN HEIGHT UP TO SPUR LINE BENCH AFTER STATION 31.
- SHORING WALL REQUIRED IN SOME NARROW AREAS, HEIGHT UP TO 20 FEET.
- SPUR LINE BENCH AFTER STATION 31.

Flour Mill Segment

PROMENADE ALIGNMENT LEGEND

- Elevated Causeway Option
- At Grade Option
- Spur Line Option

FLOUR MILL SEGMENT NOTES:

ALL ALTERNATIVE ALIGNMENTS INCLUDE:

- MID-SLOPE SURFACE DRAINAGE IMPROVEMENTS TO ADDRESS DRAINAGE.
- SLOPE REGRADING RECOMMENDED TO ADDRESS VERTICAL SLOPES BETWEEN 47 TO 53+50.
- REQUIREMENT TO BE AT GRADE AT GARFIELD GULCH.
- NO IMPACTS TO EXISTING SLOPE STABILITY.

ELEVATED ALTERNATIVE

- WALL HEIGHTS UP TO ABOUT 12 TO 20-FEET, COULD BE REDUCED BY ABOUT HALF IF MEDIAN IS RECONFIGURED AND LANES NARROWED BETWEEN 43 TO 62.
- WITH WALL HEIGHTS BELOW 20 FEET IT IS STILL DIFFICULT TO SEE OVER TRAIN CAR.
- WALL HEIGHT REQUIRED TO SUPPORT FUTURE CROSS OVER TO WATERFRONT ABOUT 28 FEET HIGH FOR CLEARANCE.

AT-GRADE ALTERNATIVE INCLUDES TWO OPTIONS:

- SLOPE CUT – REGRADE SLOPE TO 3/4H:1V, MID SLOPE BENCH, AND 1H:1V SLOPE ABOVE.
- TIED BACK SHORING WALL HIGH ENOUGH TO CREATE 10-FOOT WIDE BENCH BEHIND TOP OF WALL FOR DRAINAGE, EROSION CONTROL, CATCHMENT, AND FACILITATE ACCESS FOR MAINTENANCE. WALL HEIGHT UP TO 32 FEET.
- WALL HEIGHTS CAN BE REDUCED IF MEDIAN IS RECONFIGURED AND LANES NARROWED BETWEEN 43 TO 62.
- ROAD DIET ALTERNATIVE (16-FEET LANE)
- ONLY FEASIBLE UP TO STATION 53+50 TO ACCOMMODATE MERGE FOR N. 30TH STREET AND RUSTON WAY.

SPUR LINE ALTERNATIVE

- UTILIZES SPUR LINE BENCH WHERE IT IS STILL PRESENT, SHORING WALLS AND GRADING REQUIRED.
- PROMENADE SURFACE SLOPES UP TO ELEVATION 80 AT STATION 56 THEN SLOPES DOWN TO GARFIELD GULCH.
- EXISTING ROAD IS AT ABOUT ELEVATION 12.
- NO IMPACTS TO EXISTING LOWER SLOPE/ROAD BETWEEN STATION 37 AND STATION 56.
- REQUIRES TIED BACK SHORING WALL BETWEEN STATIONS 41TO 47 AT NARROW SECTION.
- NORTH OF STATION 56 SLOPE CUT IS REQUIRED TO ESTABLISH BENCH FOR PROMENADE DOWN TO GARFIELD GULCH.
- PROMENADE ELEVATION WOULD SUPPORT FUTURE CROSS OVER TO WATERFRONT NEAR STATION 67.
- SPUR LINE ALTERNATIVE ENDS AT GARFIELD GULCH (STATION 71).

Old Town Segment

PROMENADE ALIGNMENT LEGEND

- Elevated Causeway Option
- At Grade Option
- Spur Line Option

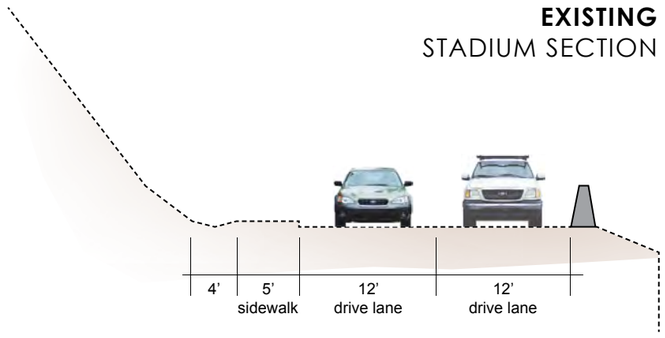
OLD TOWN SEGMENT NOTES:

- ALL ALIGNMENT ALTERNATIVES ARE THE SAME AND FIT WITHIN THE RECONFIGURED IMPROVED ROW
- EXISTING ROAD IS RECONFIGURED, SPEED REDUCED (NARROWED FROM 16-FEET WIDE TO 11-FEET)
- ELEVATING A FEW FEET WOULD ALLOW FOR WIDER CATCHMENT DITCH
- WITHOUT ROAD RECONFIGURATION SIGNIFICANT COST IMPACTS FOR REQUIRED SHORING WALLS.

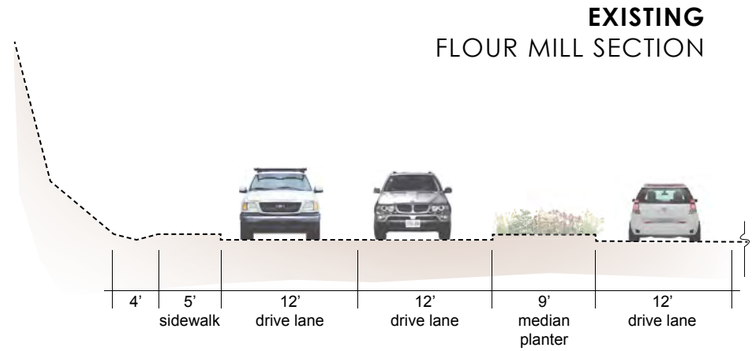
At-Grade Option - Road Diet/Lane Conversion

EXCAVATED SOIL VOLUME 3,404 TRUCKS OR 5.0 FEET IN TACOMA DOME
IMPORTED SOIL VOLUME 254 TRUCKS OR 0.4 FEET IN TACOMA DOME

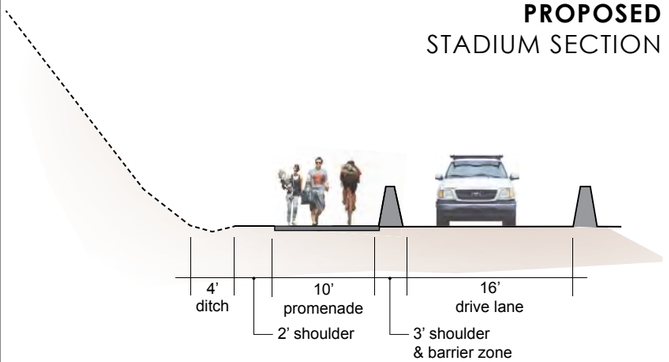
EXISTING
STADIUM SECTION



EXISTING
FLOUR MILL SECTION



PROPOSED
STADIUM SECTION



PROPOSED
FLOUR MILL SECTION