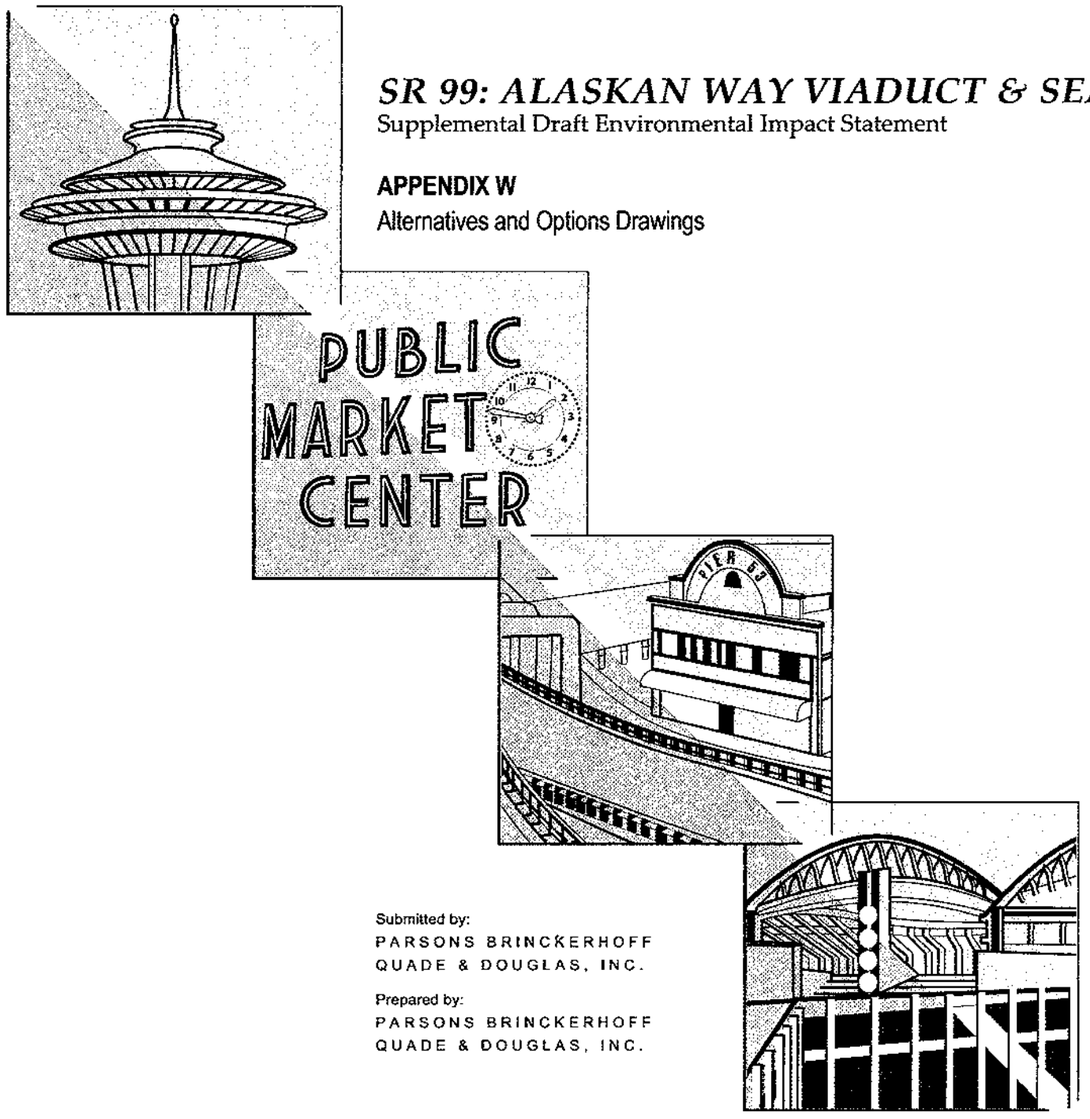

SR 99: ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT

Supplemental Draft Environmental Impact Statement

APPENDIX W

Alternatives and Options Drawings

Submitted by:
PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.

Prepared by:
PARSONS BRINCKERHOFF
QUADE & DOUGLAS, INC.

APPENDIX
W

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

City of
Seattle

JULY 2006

Alaskan Way Viaduct
&
Seawall Replacement Project

BASIC CONFIGURATION DRAWINGS

In Support of the Supplemental Draft Environmental Impact Statement
Tunnel Plan - June 30th, 2005
Rebuild Plan - June 30th, 2005
North of Battery Street Tunnel - Retained Cut Alternative - June 30th, 2005
North of Battery Street Tunnel - Concept 12C - Nov. 16th, 2005

TUNNEL ALTERNATIVE

REBUILD ALTERNATIVE

NOTICE
The information contained in these figures represents conceptual plans prepared in support of an Environmental Impact Statement. The information herein is subject to change and/or revision and is not intended for construction.

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G02	INDEX OF FIGURES - SHEET 1 OF 2
G03	INDEX OF FIGURES - SHEET 2 OF 2
G04	TABLE OF ESTIMATED DIMENSIONS
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	TUNNEL ALTERNATIVE PLANS
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T11	TUNNEL ALTERNATIVE - SOUTH OPTION ~ AT-GRADE, WHATCOM RAILYARD RELOCATED - S. LANDER TO S. HOLGATE
T12	TUNNEL ALTERNATIVE - SOUTH OPTION ~ AT GRADE, SR 519 FULL ACCESS ELEVATED - S. MASSACHUSETTES TO S. DEARBORN
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T17	TUNNEL ALTERNATIVE - NORTH OPTION ~ LOWERED AURORA - DENNY WAY TO REPUBLICAN
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T63	TUNNEL ALTERNATIVE - CENTRAL ~ STACKED TUNNEL - S. WASHINGTON TO PIKE ST
T64	TUNNEL ALTERNATIVE - CENTRAL ~ SR 99 UNDER ELLIOTT AND WESTERN - PIKE TO BATTERY STREET TUNNEL
T65	TUNNEL ALTERNATIVE - NORTH WATERFRONT ~ PIKE TO BROAD
T66	TUNNEL ALTERNATIVE - NORTH ~ PARTIALLY LOWERED AURORA - DENNY WAY TO REPUBLICAN
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T69	TUNNEL ALTERNATIVE - CENTRAL OPTION ~ SIDE-BY-SIDE TUNNEL - S. WASHINGTON TO PIKE
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T78	TUNNEL ALTERNATIVE - CENTRAL OPTION ~ SECTION F

	REBUILD ALTERNATIVE
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R00	REBUILD ALTERNATIVE ~ VICINITY MAP AND KEY PLAN
	REBUILD ALTERNATIVE PLANS
R01	REBUILD ALTERNATIVE - SOUTH ~ AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. SPOKANE TO S. LANDER
R02	REBUILD ALTERNATIVE - SOUTH ~ AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. LANDER TO S. HOLGATE
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R28	REBUILD ALTERNATIVE - NORTH ~ CROSS-SECTION FROM FIGURE R07
R29	REBUILD ALTERNATIVE - NORTH ~ CROSS-SECTION FROM FIGURE R07
R30	REBUILD ALTERNATIVE - NORTH ~ CROSS-SECTIONS FROM FIGURE R08
R31	REBUILD ALTERNATIVE - NORTH ~ CROSS-SECTIONS FROM FIGURE R08
R32	REBUILD ALTERNATIVE - NORTH ~ CROSS-SECTIONS FROM FIGURE R09
R33	REBUILD ALTERNATIVE - SOUTH OPTION ~ CROSS-SECTIONS FROM FIGURE R10, R11

	REBUILD ALTERNATIVE SEAWALL
R50	REBUILD ALTERNATIVE - SEAWALL ~ GENERAL LAYOUT AND KEY PLAN
R51	REBUILD ALTERNATIVE - SEAWALL ~ CROSS-SECTION, FROM FIGURE R50
R52	REBUILD ALTERNATIVE - SEAWALL ~ CROSS-SECTIONS, FROM FIGURE R50
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R54	REBUILD ALTERNATIVE - SEAWALL ~ CROSS-SECTION, FROM FIGURE R50
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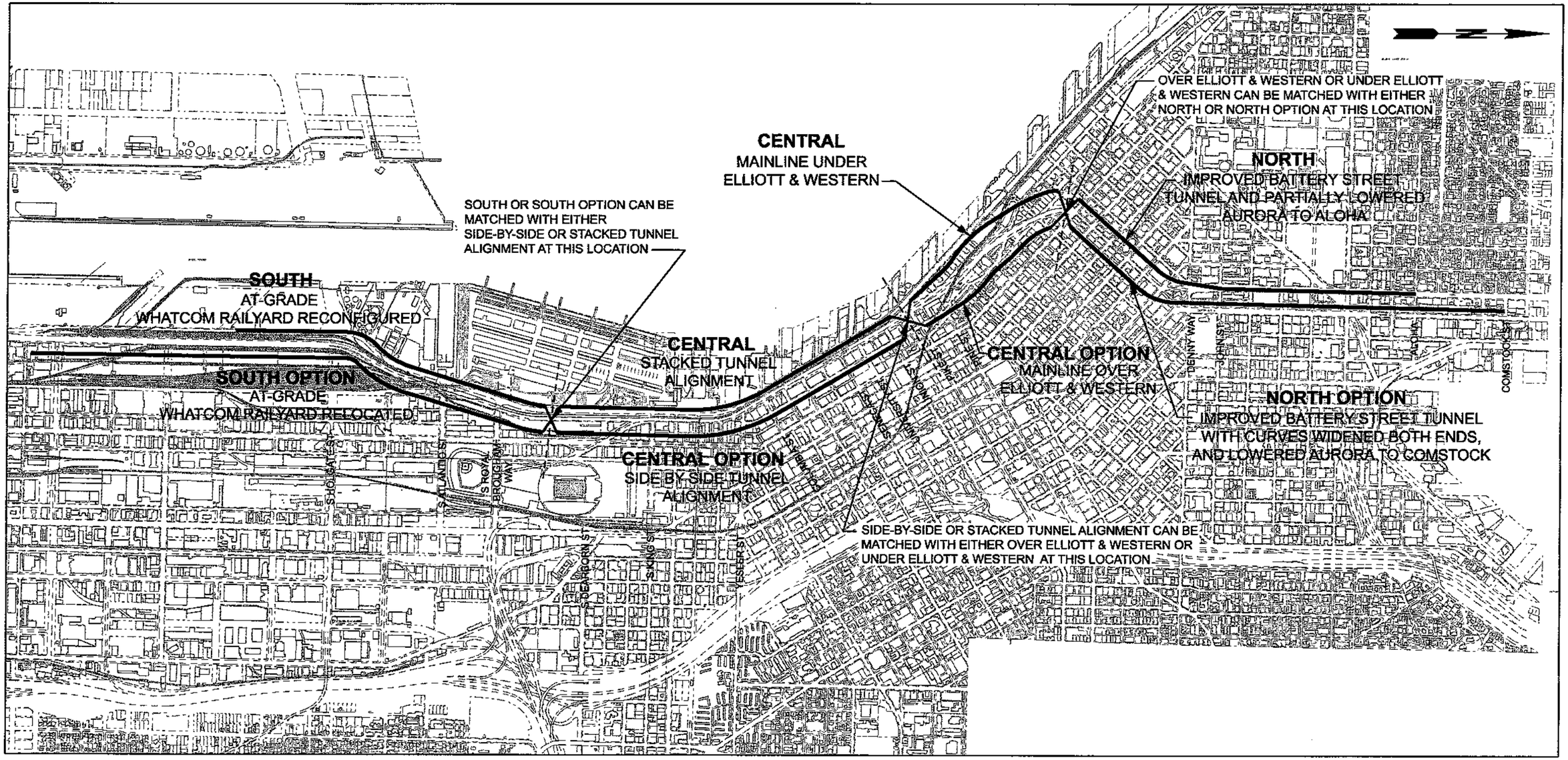
R73	REBUILD ALTERNATIVE - CENTRAL ~ SECTION D

APPENDIX W - ALASKAN WAY VIADUCT AND SEAWALL REPLACEMENT
ESTIMATED DIMENSIONS FOR EACH ALTERNATIVE (ALL DIMENSIONS IN FEET)

	TUNNEL ALTERNATIVE				
	SOUTH	**CENTRAL**		**NORTH**	
	WHATCOM RR YARD RECONFIGURED	STACKED TUNNEL	SR 99 UNDER ELLIOTT AND WESTERN	UNWIDENED BATTERY STREET TUNNEL	PARTIALLY LOWERED AURORA
MAINLINE LANE WIDTHS	12	12	12	12	11
MAINLINE SHOULDER WIDTHS - LT, RT	4' LT, 10' RT	2' LT, 10' RT	4' LT, 10' RT	1	2' LT, 10 RT
RAMP LANE WIDTHS	12	NA	12	NA	14
RAMP SHOULDER WIDTHS - LT, RT	4' LT, 8' RT	NA	4' LT, 8' RT	NA	2' LT, 4' RT
CITY STREET LANE WIDTHS	11 - 12'	11 - 12'	NA	NA	11 - 12'
TYPICAL STRUCTURE HEIGHT	23-30'	NA	Varies	NA	NA
	TUNNEL OPTION				
	SOUTH	**CENTRAL**		**NORTH**	
	WHATCOM RR YARD RELOCATED	SIDE-BY-SIDE TUNNEL	SR 99 OVER ELLIOTT AND WESTERN	WIDENED BATTERY STREET TUNNEL	LOWERED AURORA
MAINLINE LANE WIDTHS	12	12	12	12	11
MAINLINE SHOULDER WIDTHS - LT, RT	4' LT, 10' RT	2' LT, 10' RT	4' LT, 10' RT	VARIES 1 - 15'	2' LT, 10 RT
RAMP LANE WIDTHS	12	NA	12	NA	11 - 14'
RAMP SHOULDER WIDTHS - LT, RT	4' LT, 8' RT	NA	4' LT, 8' RT	NA	2' LT, 4' RT
CITY STREET LANE WIDTHS	11 - 12'	11 - 12'	NA	NA	11 - 12'
TYPICAL STRUCTURE HEIGHT	23-30'	NA	Varies	NA	NA
	REBUILD ALTERNATIVE				
	SOUTH	**CENTRAL**		**NORTH**	
	WHATCOM RR YARD RECONFIGURED	REBUILT VIADUCT	SR 99 OVER ELLIOTT AND WESTERN	UNWIDENED BATTERY STREET TUNNEL	PARTIALLY LOWERED AURORA
MAINLINE LANE WIDTHS	12	12	12	12	11
MAINLINE SHOULDER WIDTHS - LT, RT	4' LT, 10' RT	4' LT SB, 10' LT NB, 10' RT	4' LT, 10' RT	1	2' LT, 10 RT
RAMP LANE WIDTHS	12	12	15	NA	11 - 14'
RAMP SHOULDER WIDTHS - LT, RT	4' LT, 8' RT	4' LT, 8' RT	4' LT, 8' RT	NA	2' LT, 4' RT
CITY STREET LANE WIDTHS	11 - 12'	11 - 12'	NA	NA	11 - 12'
TYPICAL STRUCTURE HEIGHT	23-30'	33 / 58	Varies	NA	NA
	EXISTING VIADUCT				
	SOUTH	CENTRAL	NORTH	BST	NORTH OF BST
MAINLINE LANE WIDTHS	12 - 13.5'	9.3 - 13'	9.3 - 13'	12	10 - 13'
MAINLINE SHOULDER WIDTHS - LT, RT	1, 1	1, 1	1, 1	0.5	1' LT, Sidewalk on RT
RAMP LANE WIDTHS	14.5, 18.5	11, 22.5	11, 22.5	NA	10 - 13'
RAMP SHOULDER WIDTHS - LT, RT	2.5-7	1, 1	Varies	NA	Sidewalk
CITY STREET LANE WIDTHS	Varies	Varies	Varies	NA	10 - 13
TYPICAL STRUCTURE HEIGHT	33, 55	33, 55	Varies	NA	NA

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT



SCHEMATIC OF TUNNEL ALTERNATIVE / OPTIONS

NOT TO SCALE

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE
SCHEMATIC OF TUNNEL ALTERNATIVE / OPTIONS

FIGURE NO
T0

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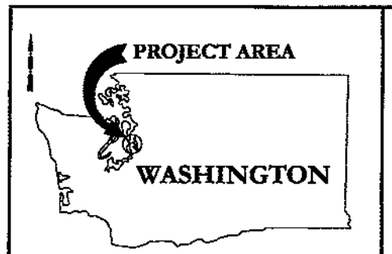
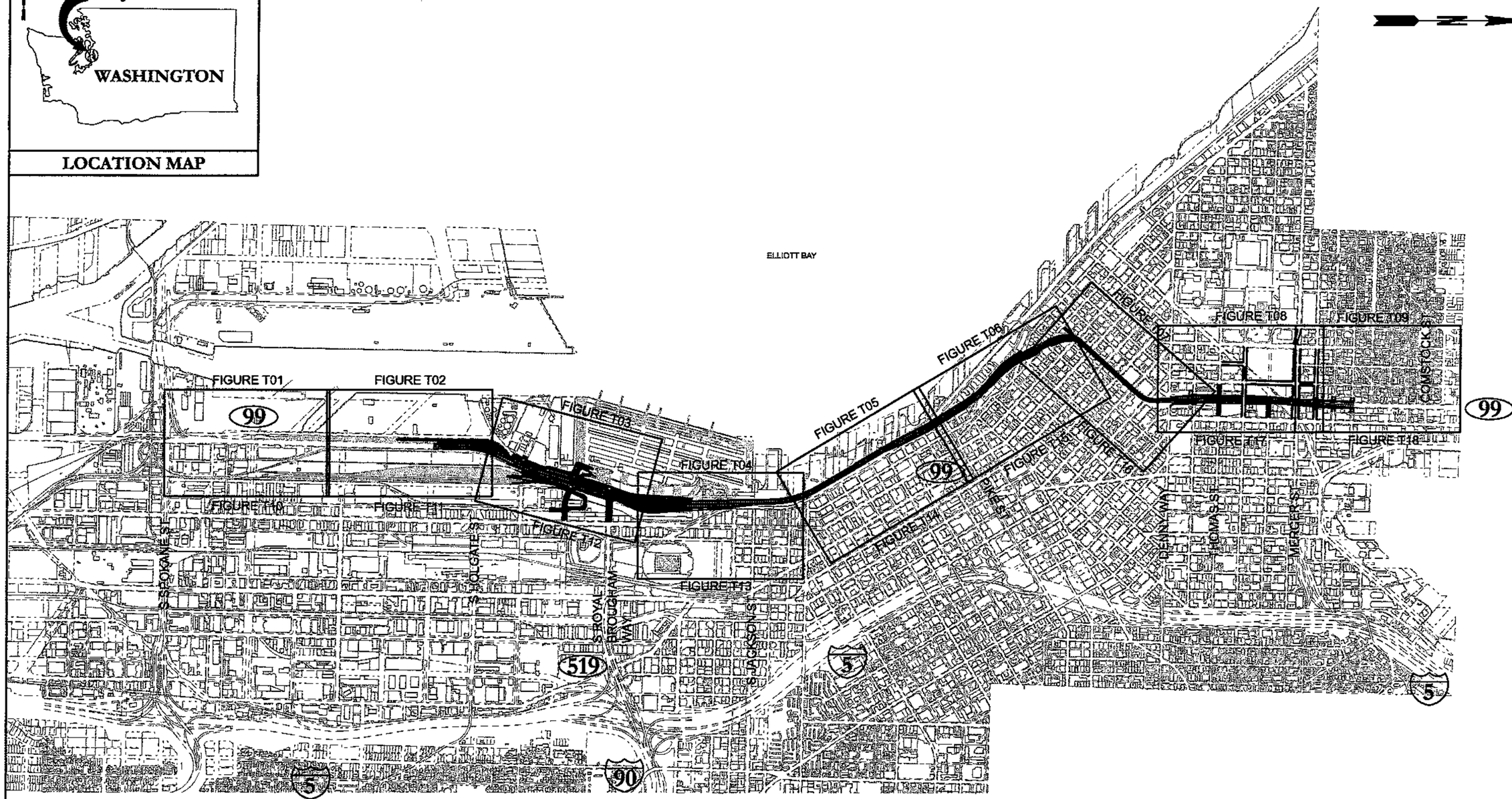
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT



LOCATION MAP



Vicinity Map and Key Plan

NOT TO SCALE

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TUNNEL ALTERNATIVE
VICINITY MAP AND KEY PLAN

FIGURE NO
T00

1/33/2006 9:39:23 AM

South

S. Spokane To S.Dearborn

N

3 LANES EACH WAY
EXISTING AT-GRADE

E. MARGINAL WAY

S. SPOKANE ST. VIADUCT

S. HOLGATE ST

S. KING ST

S. MASSACHUSETTS ST

S. HANFORD ST

S. LANDER ST

0 100 200
SCALE IN FEET

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TUNNEL ALTERNATIVE - SOUTH
AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. SPOKANE TO S. LANDER

FIGURE NO
T01

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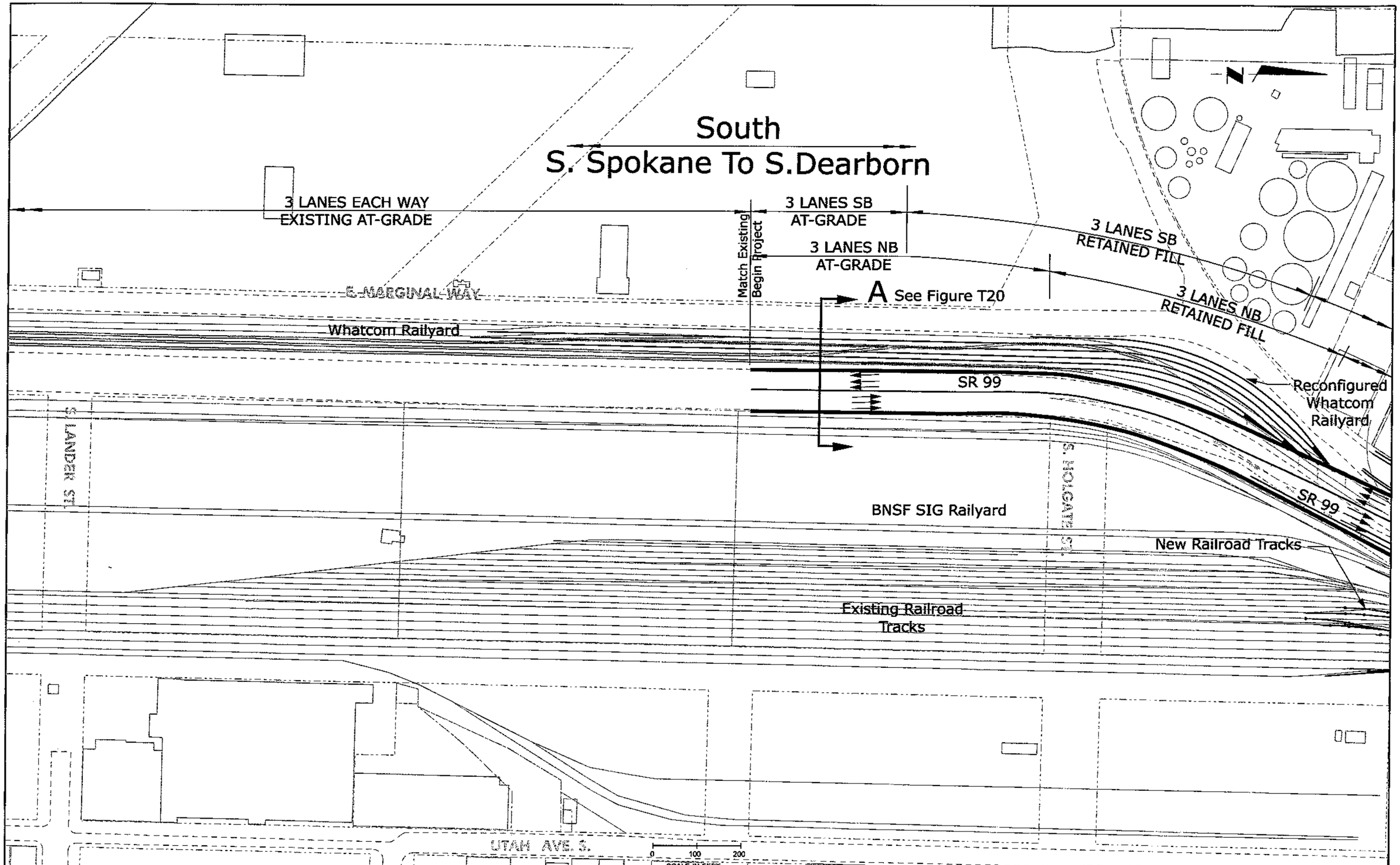

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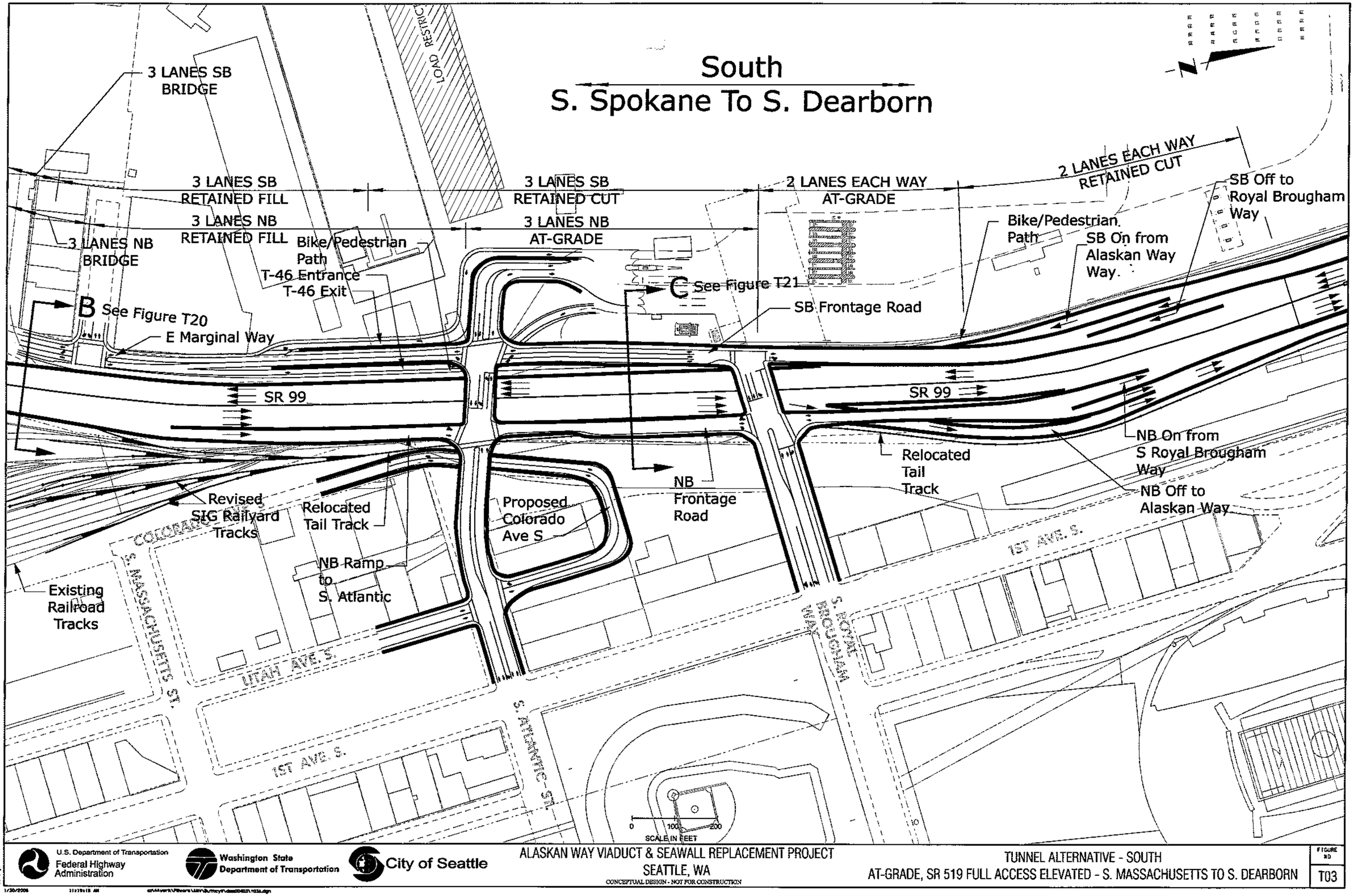
TUNNEL ALTERNATIVE - SOUTH
AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. LANDER TO S. HOLGATE

FIGURE NO
T02

South
S. Spokane To S. Dearborn



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TUNNEL ALTERNATIVE - SOUTH
AT-GRADE, SR 519 FULL ACCESS ELEVATED - S. MASSACHUSETTS TO S. DEARBORN

FIGURE NO
T03

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South
S. Spokane To S.Dearborn

Central
S.Dearborn to Battery Street Tunnel

N

2 LANES EACH WAY AT GRADE

2 LANES EACH WAY RETAINED CUT

3 LANES EACH WAY CUT-AND-COVER TUNNEL

SB On from Alaskan Way

SB Off to Royal Brougham Way

D See Figure T22

See Figure T22

F See Figure T23

SR 99

SR 99

SR 99

Relocated Tail Track

NB On from S Royal Brougham Way

NB Off to Alaskan Way

Portal Vent Building

Tunnel Portal

End of Tail Track

1ST AVE. S.

RAILROAD WAY SOUTH

S. KING ST.

S. JACKSON ST.

S. MAIN ST.

S. WASHINGTON ST.

1ST AVE. S.

OCCIDENTAL AVE.

0 100 200

SCALE IN FEET

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TUNNEL ALTERNATIVE - CENTRAL
STACKED TUNNEL - S. DEARBORN TO S. WASHINGTON

FIGURE NO.
T04

7/30/2006 11:20:29 AM

Central
S.Dearborn to Battery Street Tunnel

ELLIOTT BAY

3 LANES EACH WAY
CUT-AND-COVER TUNNEL

G See Figure T24

ALASKAN WAY

SR 99

SR 99

ALASKAN WAY VIADUCT

YESLER WAY

COLUMBIA ST.

MARION ST.

MADISON ST.

SPRING ST.

SENECA ST.

WESTERN AVE.

UNION ST.

PIKE ST.

1ST AVE.

UNIVERSITY ST.

2ND AVE.

0 100 200
SCALE IN FEET

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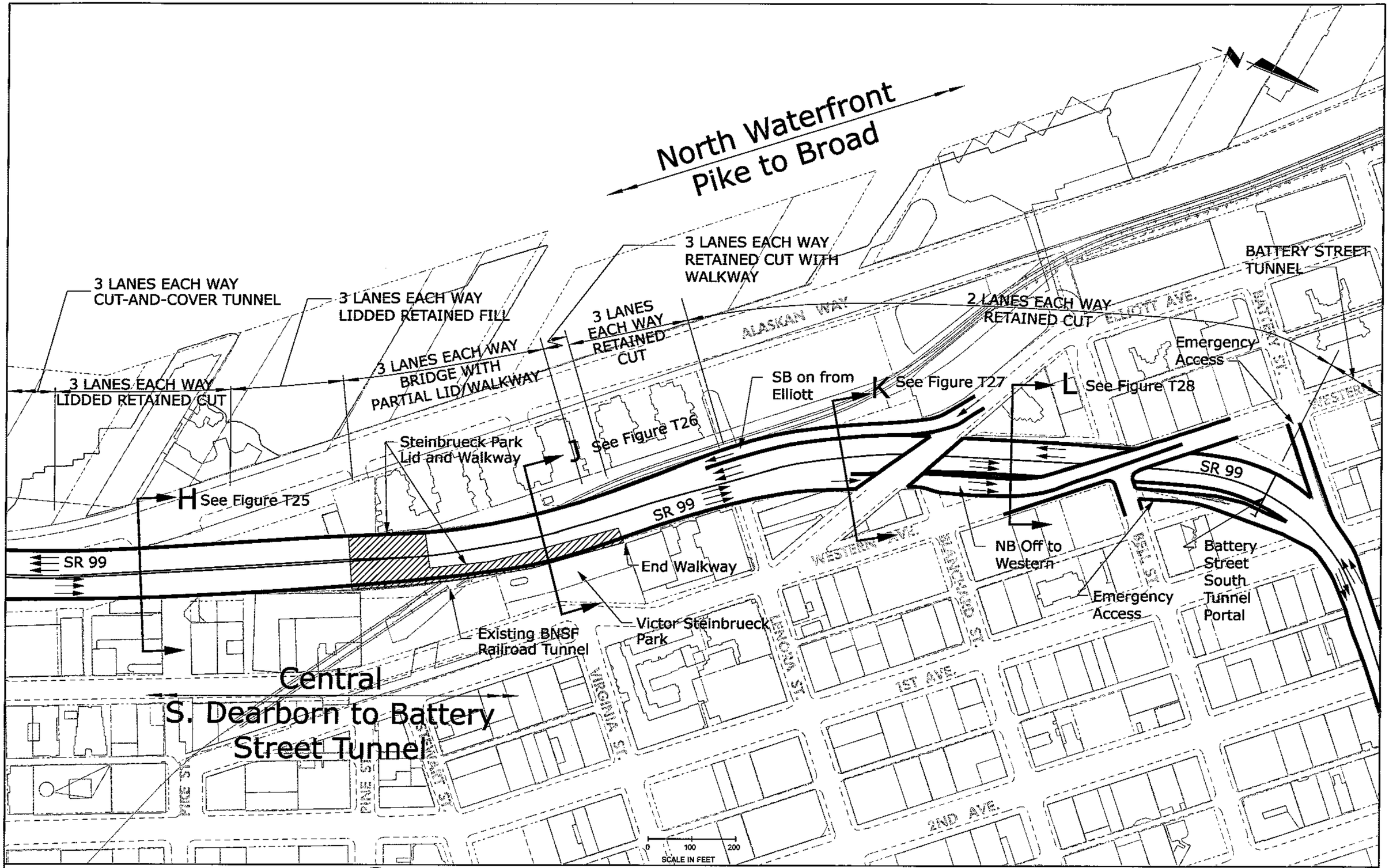
TUNNEL ALTERNATIVE - CENTRAL
STACKED TUNNEL - S. WASHINGTON TO PIKE

FIGURE NO
T05

1/30/2008 2:33:15 PM



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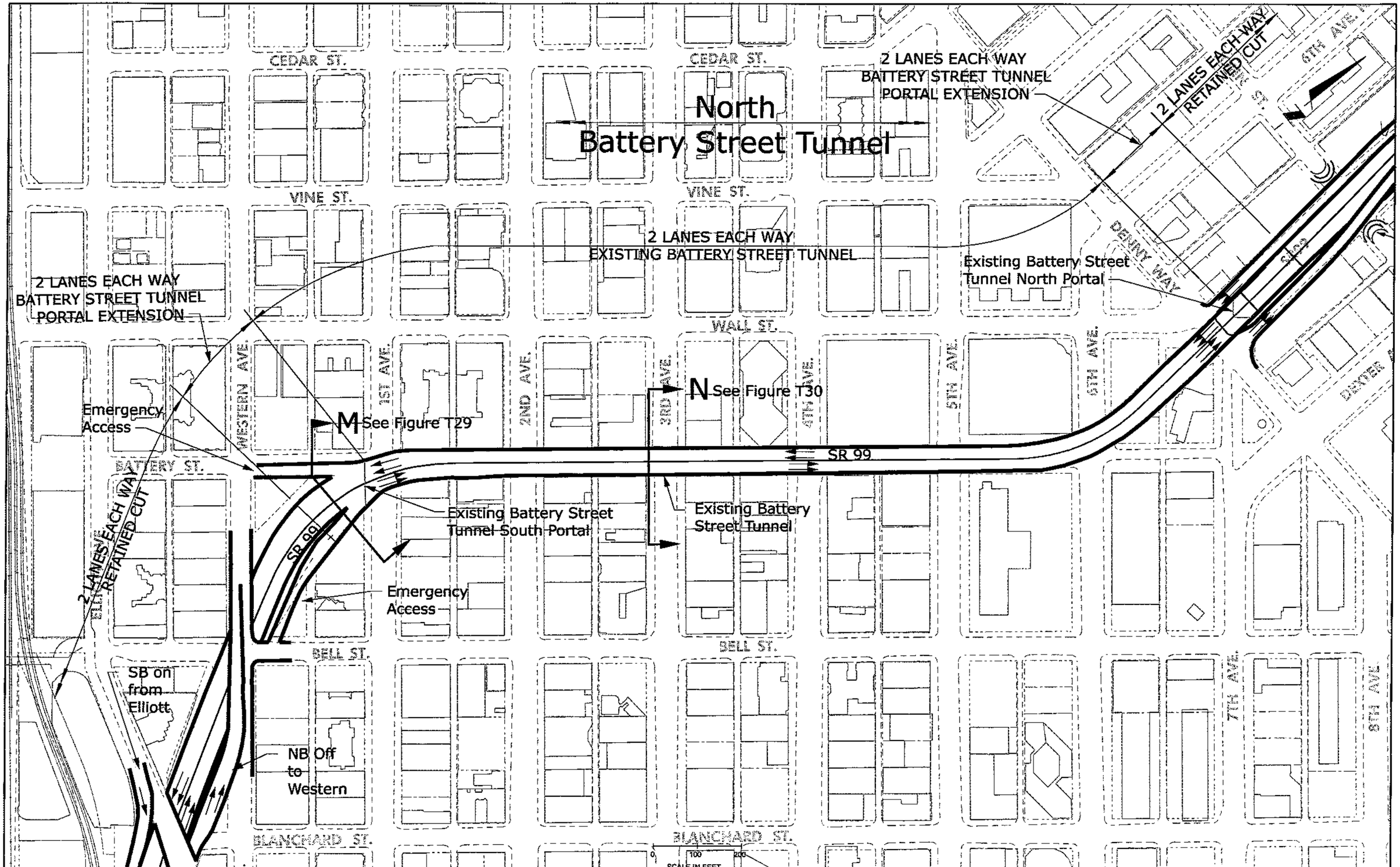
TUNNEL ALTERNATIVE - CENTRAL
SR 99 UNDER ELLIOTT AND WESTERN - PIKE TO BATTERY STREET TUNNEL

FIGURE NO
T06



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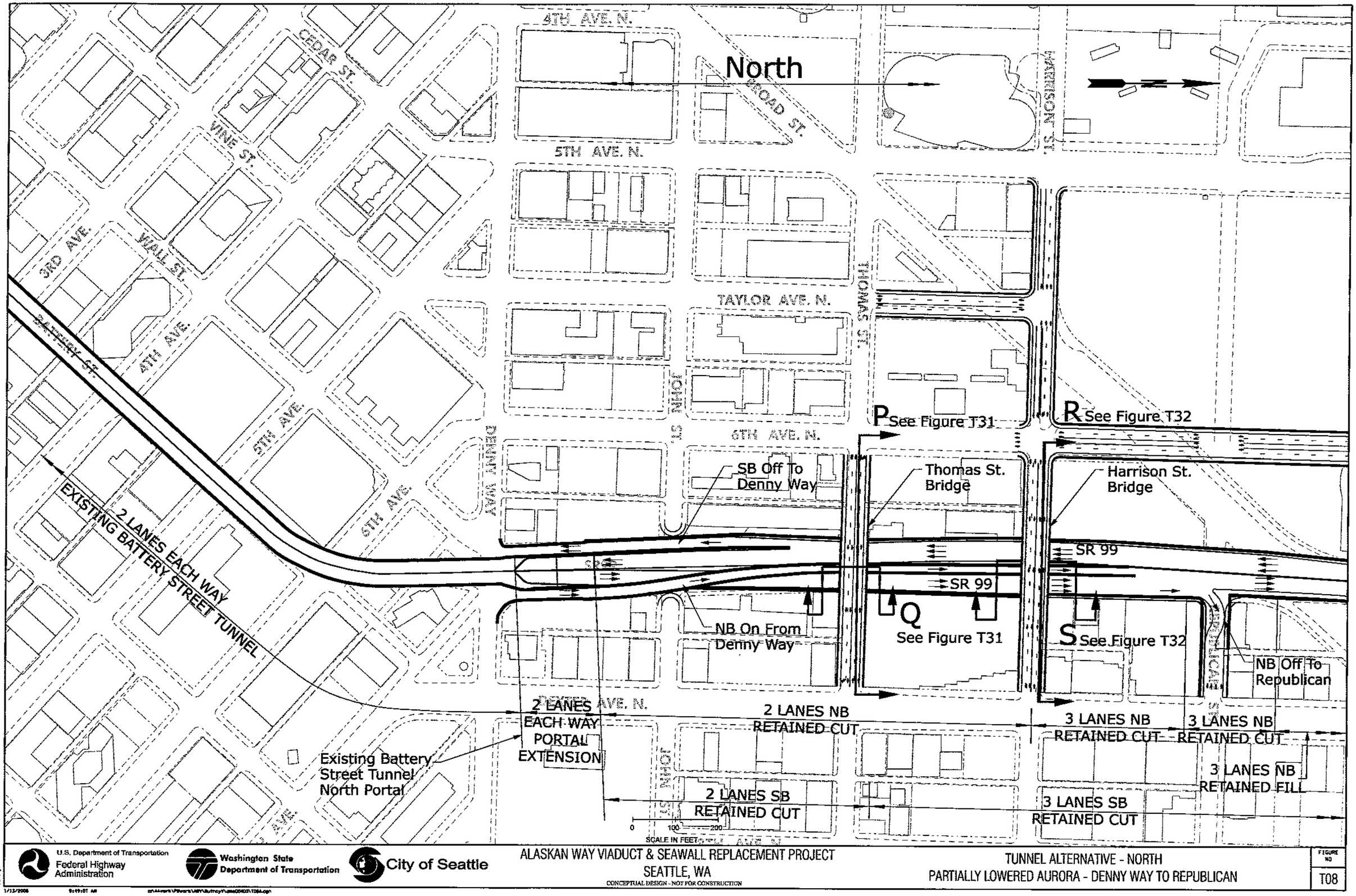
TUNNEL ALTERNATIVE - NORTH
BATTERY STREET TUNNEL

FIGURE NO
T07



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CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - DENNY WAY TO REPUBLICAN

FIGURE NO
T08

1/13/2006 9:19:07 AM

North

TAYLOR AVE. N.

ALOHA ST.

6TH AVE. N.

VALLEY ST.

WARD ST.

PROSPECT ST.

HIGHLAND DR.

COMSTOCK ST.

LEE ST.

CATER ST.

SR99

T See Figure T33

SB Off and on at Roy

ROY ST.

See Figure T33

NB Off and On at Roy

Match Existing End project

DEXTER AVE. N.

4 LANES NB BRIDGE

3 LANES NB RETAINED FILL

3 LANES NB RETAINED FILL

3 LANES NB AT GRADE

4 LANES NB AT GRADE

3 LANES NB AT GRADE

BROAD ST.

3 LANES SB BRIDGE

3 LANES SB RETAINED FILL

3 LANES SB RETAINED FILL

3 LANES SB AT GRADE

4 LANES SB AT GRADE

3 LANES SB AT GRADE

MERCER ST.

0 100 200

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - REPUBLICAN TO ALOHA

FIGURE NO. T09

1/13/2006 9:50:02 AM

South
S. Spokane To S. Dearborn

3 LANES EACH WAY
EXISTING BRIDGE

3 LANES EACH WAY
RETAINED FILL

3 LANES EACH WAY
AT-GRADE

Match Existing
Begin Project

E. MARGINAL WAY

SR 99

S. SPOKANE ST. VIADUCT

S. HINDS ST

S. HORTON ST

S. HANFORD ST

Whatcom Railyard
Connection

Proposed Relocated
Whatcom Railyard

0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH OPTION
AT-GRADE, WHATCOM RAILYARD RELOCATED - S. SPOKANE TO S. LANDER

FIGURE NO
T10

1/13/2006 9:51:17 AM

South
S. Spokane To S.Dearborn

3 LANES EACH WAY
AT-GRADE

A See Figure T34

E. MARGINAL WAY

SR 99

SB On from
E. Marginal Way

SR 99

S. LANDER ST

Proposed
Relocated
Whatcom
Railyard

BNSF SIG Railyard

S. HOLGATE ST

B See Figure T34

Revised SIG
Railyard Tracks

Existing Railroad
Tracks

UTAH AVE. S.

0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH OPTION
AT-GRADE, WHATCOM RAILYARD RELOCATED - S. LANDER TO S. HOLGATE

FIGURE NO
T11

1/13/2006 9:52:34 AM

South
S. Spokane To S. Dearborn

3 LANES SB BRIDGE

3 LANES NB BRIDGE

3 LANES SB RETAINED FILL

3 LANES NB RETAINED FILL

3 LANES SB RETAINED CUT

3 LANES NB AT-GRADE

2 LANES EACH WAY AT-GRADE

3 LANES EACH WAY CUT AND COVER TUNNEL

2 LANES EACH WAY RETAINED CUT

SB Off to Royal Brougham Way

Bike/Ped Path

SB On from Alaskan Way

T-46 Entrance

T-46 Exit

See Figure T35

SB Frontage Road

E Marginal Way

SR 99

SR 99

Revised SIG Railyard Tracks

Relocated Tail Track

Proposed Colorado Ave S

NB Frontage Road

Relocated Tail Track

NB On from S Royal Brougham Way

NB Off to Alaskan Way

NB Ramp to S. Atlantic

Existing Railroad Tracks

COLORADO AVE S.

S. MASSACHUSETTS ST.

UTAH AVE S.

1ST AVE. S.

S. ATLANTIC ST.

S. ROYAL BROUGHAM WAY

1ST AVE. S.

0 100 200
SCALE IN FEET

U.S. Department of Transportation
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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH OPTION
AT-GRADE, SR 519 FULL ACCESS ELEVATED - S. MASSACHUSETTS TO S. DEARBORN

FIGURE NO
T12

1/30/2006 11:23:37 AM

South
S. Spokane To S.Dearborn

Central
S.Dearborn to Battery Street Tunnel

2 LANES EACH WAY AT GRADE

2 LANES EACH WAY RETAINED CUT

3 LANES EACH WAY CUT-AND-COVER TUNNEL

LOAD RESTRICTED AREA

64

SB On from Alaskan Way

SB Off to Royal Brougham Way

See Figure T36

See Figure T36

See Figure T37

SR 99

SR 99

SR 99

Relocated Tail Track

NB On from S Royal Brougham Way

NB Off to Alaskan Way

Tunnel Portal

Portal Vent Building

End of Tail Track

1ST AVE. S.

RAILROAD WAY SOUTH

S. KING ST.

S. JACKSON ST.

S. MAIN ST.

S. WASHINGTON ST.

1ST AVE. S.

OCCIDENTAL AVE.

0 100 200
SCALE IN FEET

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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SIDE - BY - SIDE TUNNEL - DEARBORN TO S. WASHINGTON

FIGURE NO
T13

Central
S.Dearborn to Battery Street Tunnel

ELLIOTT BAY

3 LANES EACH WAY
CUT-AND-COVER TUNNEL

See Figure T38

ALASKAN WAY

SR 99

SR 99

YESLER WAY

E. S.

COLUMBIA ST.

MARION ST.

MADISON ST.

SPRING ST.

SENECA ST.

WESTERN AVE.

UNION ST.

PINE ST.

1ST AVE.

UNIVERSITY ST.

2ND AVE.

0 100 200
SCALE IN FEET

U.S. Department of Transportation
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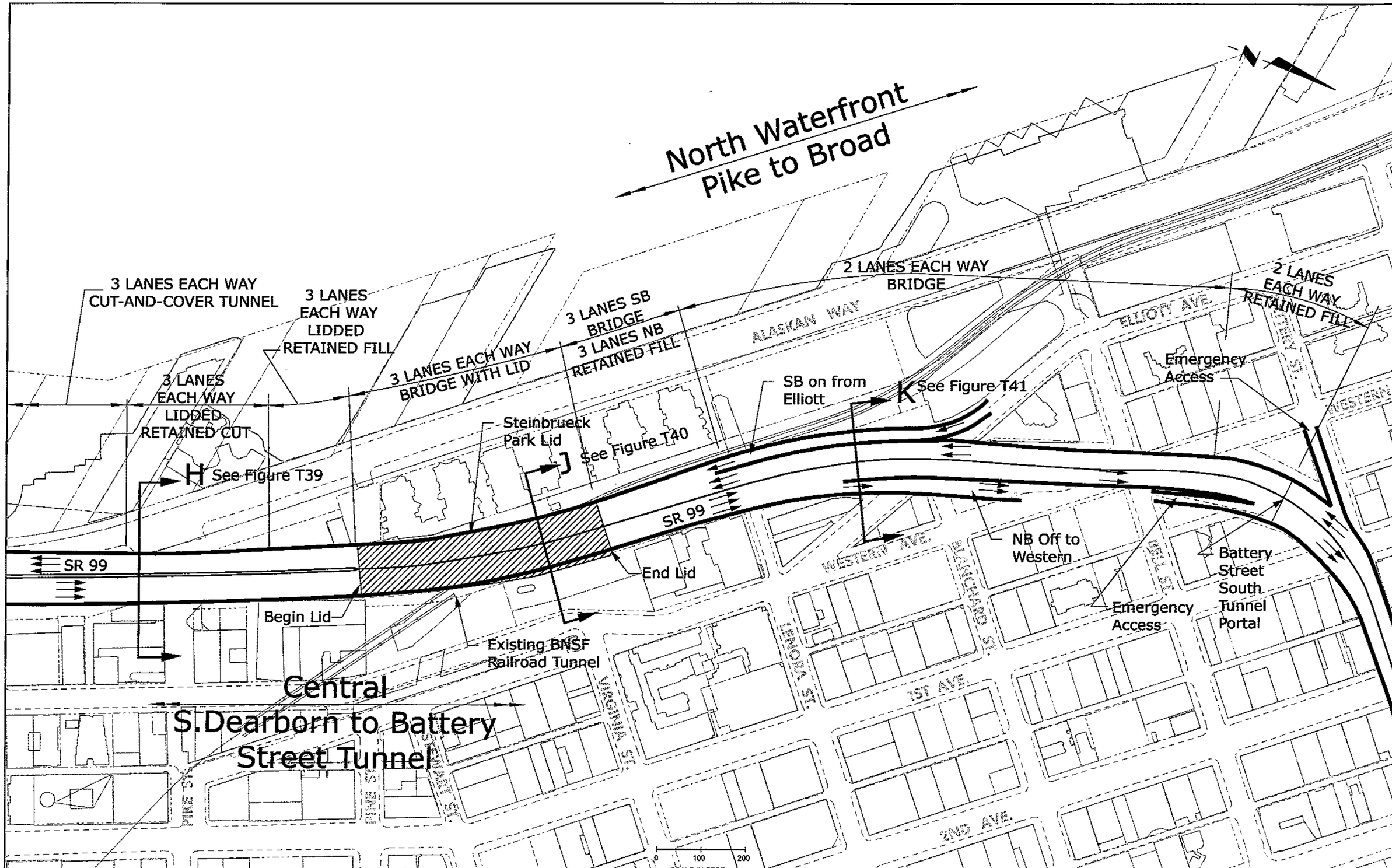
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SIDE - BY - SIDE TUNNEL - S. WASHINGTON TO PIKE

FIGURE NO
T14

burdyw
1/15/2008 9:36:16 AM



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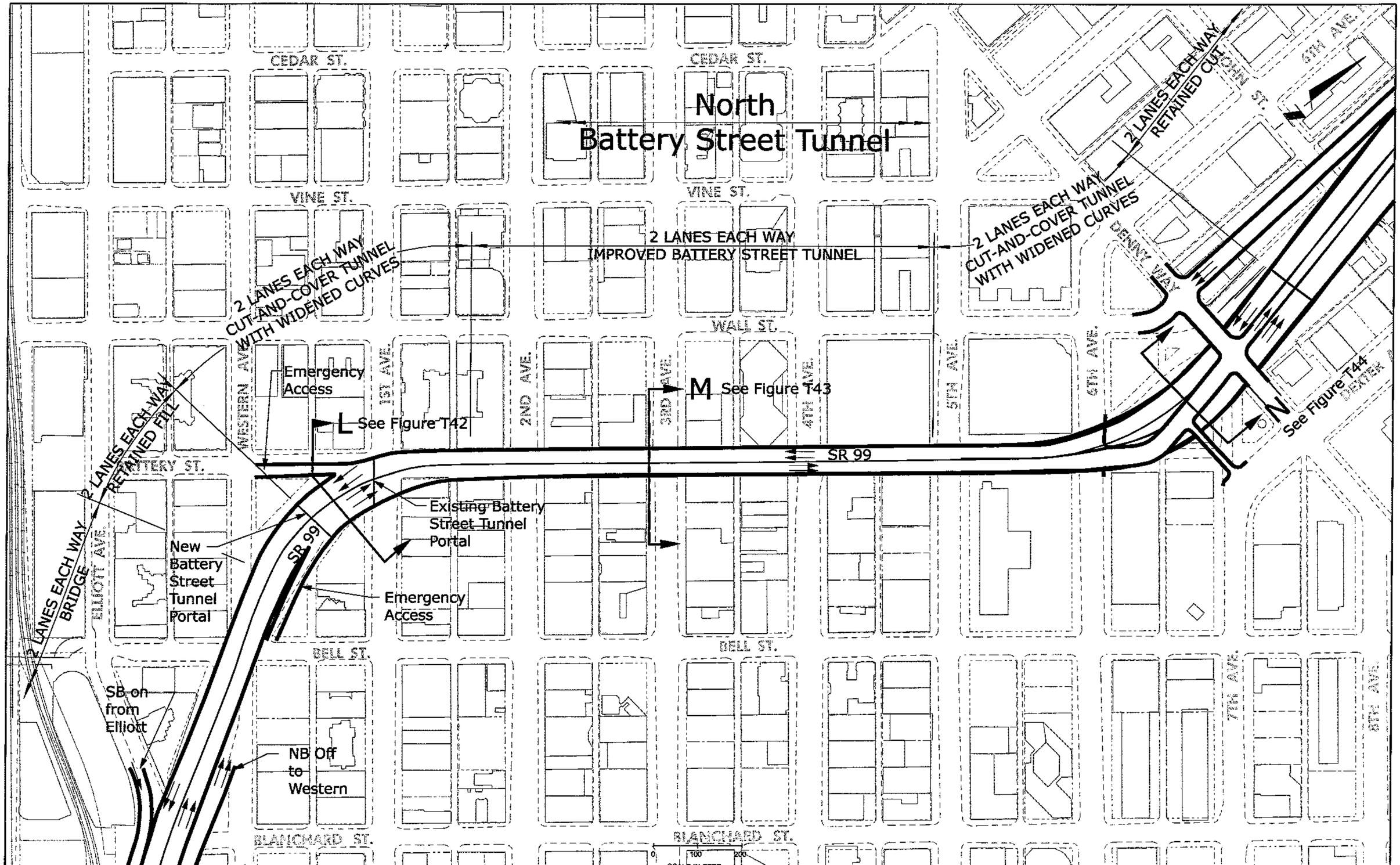
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SR 99 OVER ELLIOTT AND WESTERN - PIKE TO BATTERY STREET TUNNEL

FIGURE NO
T15



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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
BATTERY STREET TUNNEL

FIGURE NO
T16

North

4TH AVE. N.

5TH AVE. N.

6TH AVE. N.

TAYLOR AVE. N.

BROAD ST.

HARRISON ST.

THOMAS ST.

JOHN ST.

DENNY WAY

CEDAR ST.

VINE ST.

WALL ST.

3RD AVE.

4TH AVE.

5TH AVE.

6TH AVE.

BATTERY ST.

2 LANES EACH WAY
IMPROVED BATTERY
STREET TUNNEL

Existing Battery Street
Tunnel Portal

New Tunnel Portal

2 LANES EACH WAY
CUT-AND-COVER TUNNEL
WITH WIDENED CURVES

DEXTER AVE. N.

NB On from
Denny Way

P See Figure T45

Q See Figure T45

SB Off to
Denny Way

SB On from
Republican

SB On from
Roy

SR 99

SR 99

E See Figure T47

NB Off to
Republican

NB On from
Republican

2 LANES SB
3 LANES NB
RETAINED CUT

2 LANES EACH WAY
RETAINED CUT

0 100 200
SCALE IN FEET

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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
LOWERED AURORA - DENNY WAY TO REPUBLICAN

FIGURE NO.
T17

North

4TH AVE. N.

MERCER ST.

5TH AVE. N.

TAYLOR AVE. N.

ALOHA ST.

6TH AVE. N.

See Figure T47

See Figure T46

See Figure T47

See Figure T46

See Figure T47

SB On from Roy

SB Off to Denny

SB Off to Roy

NB On from Republican

2 LANES SB
3 LANES NB
RETAINED CUT

DEXTER AVE. N.

3 LANES EACH WAY
RETAINED CUT

3 LANES EACH WAY
AT-GRADE

Match Existing
End project

SR 99

0 100 200
SCALE IN FEET

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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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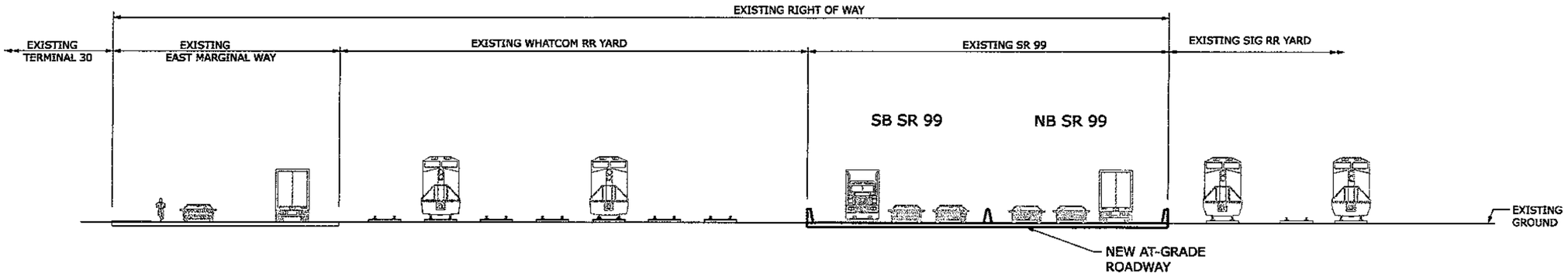
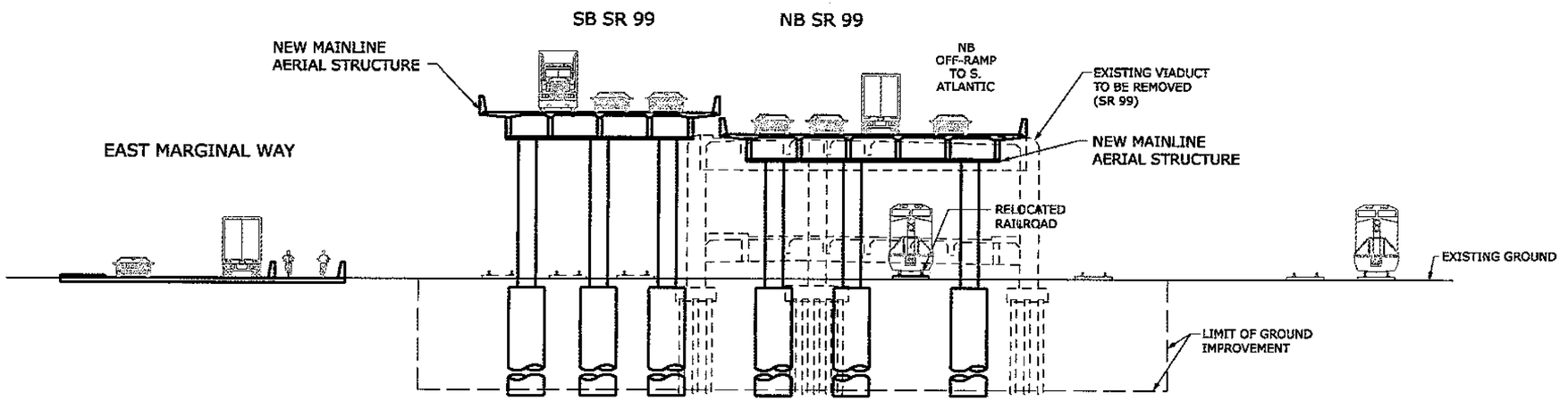
TUNNEL ALTERNATIVE - NORTH OPTION
LOWERED AURORA - REPUBLICAN TO COMSTOCK

FIGURE NO.
T18

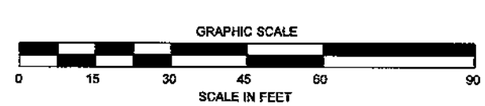
1/13/2006 10:00:49 AM



CROSS-SECTION A FROM FIGURE T02



CROSS-SECTION B FROM FIGURE T03



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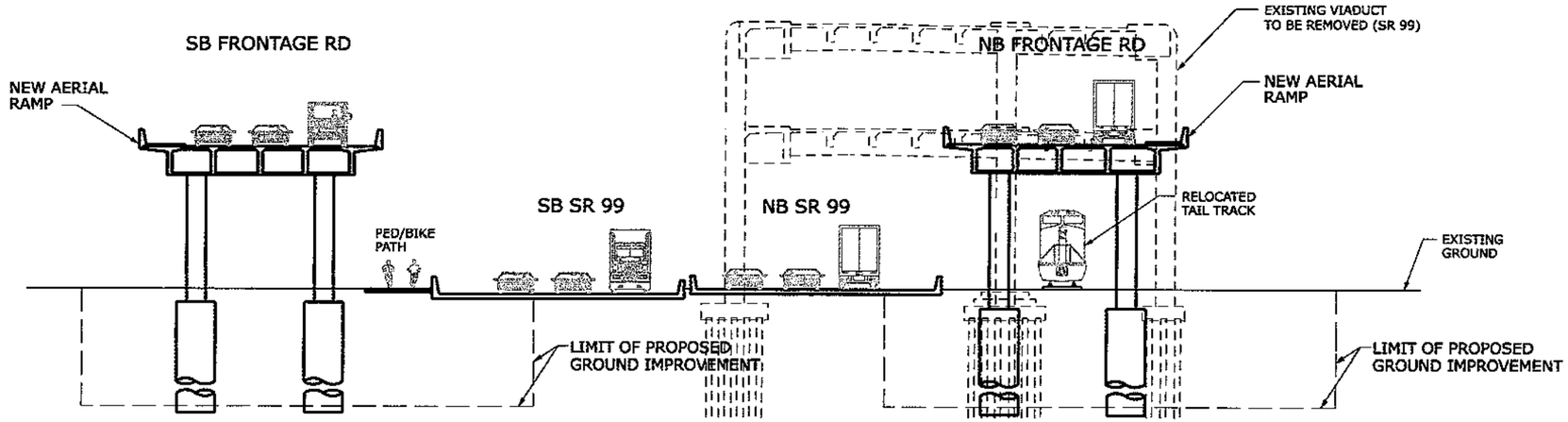
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH
CROSS-SECTIONS FROM FIGURES T02, T03

FIGURE NO
T20



SR 519 INTERCHANGE
CROSS-SECTION C FROM FIGURE T03

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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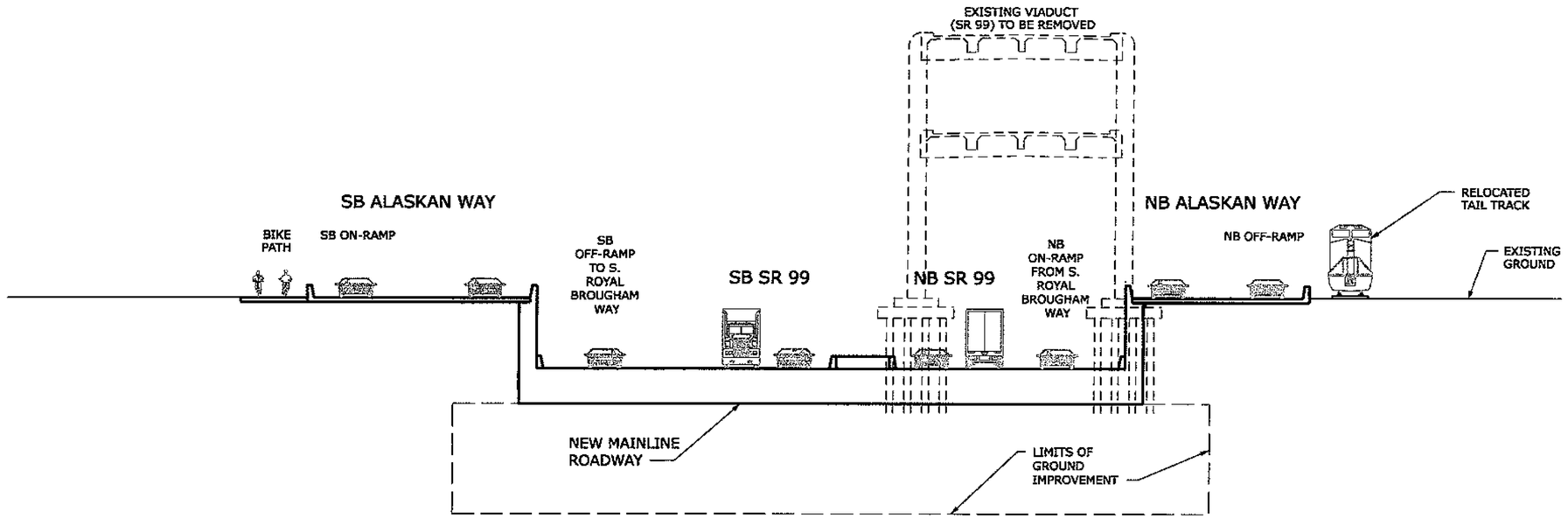
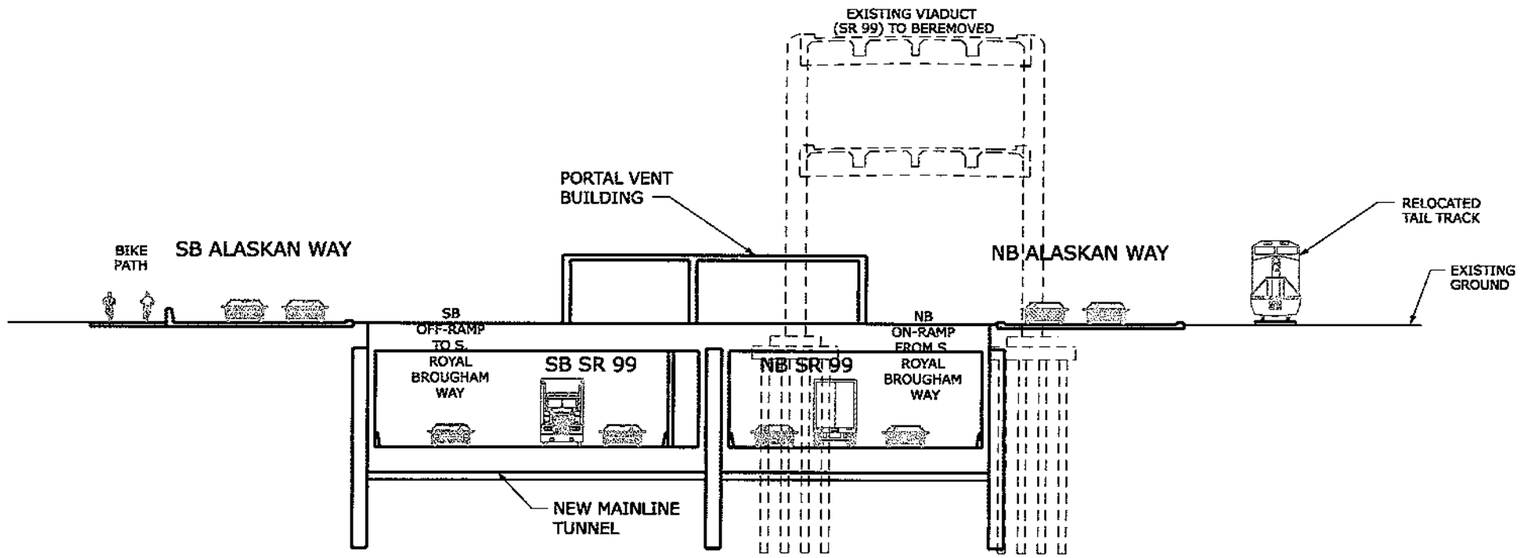
TUNNEL ALTERNATIVE - SOUTH
CROSS-SECTION FROM FIGURE T03

FIGURE NO
T21

bytdgw
1/13/2006 10:02:46 AM



CROSS-SECTION D FROM FIGURE T04



CROSS-SECTION E FROM FIGURE T04

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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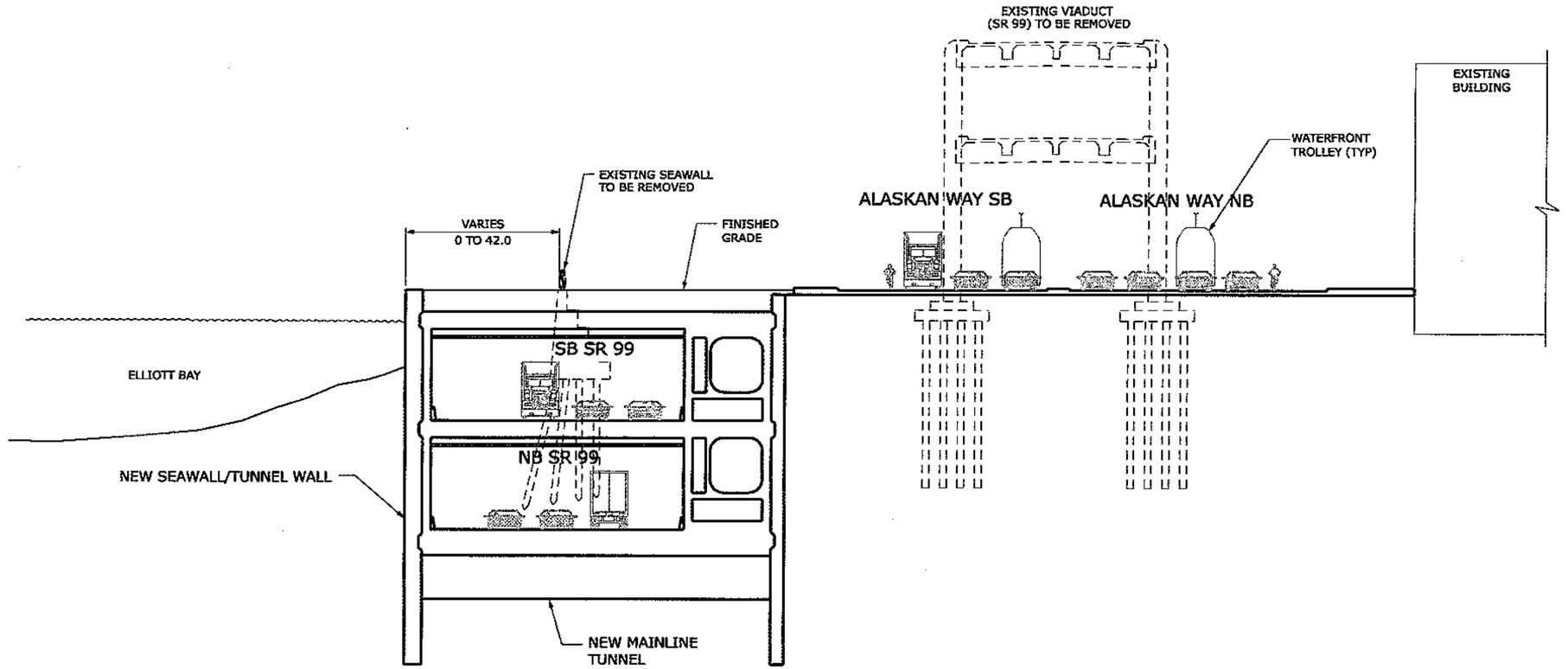
TUNNEL ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURE T04

FIGURE NO
T22

1/13/2006 10:03:44 AM



CROSS-SECTION F FROM FIGURE T04

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
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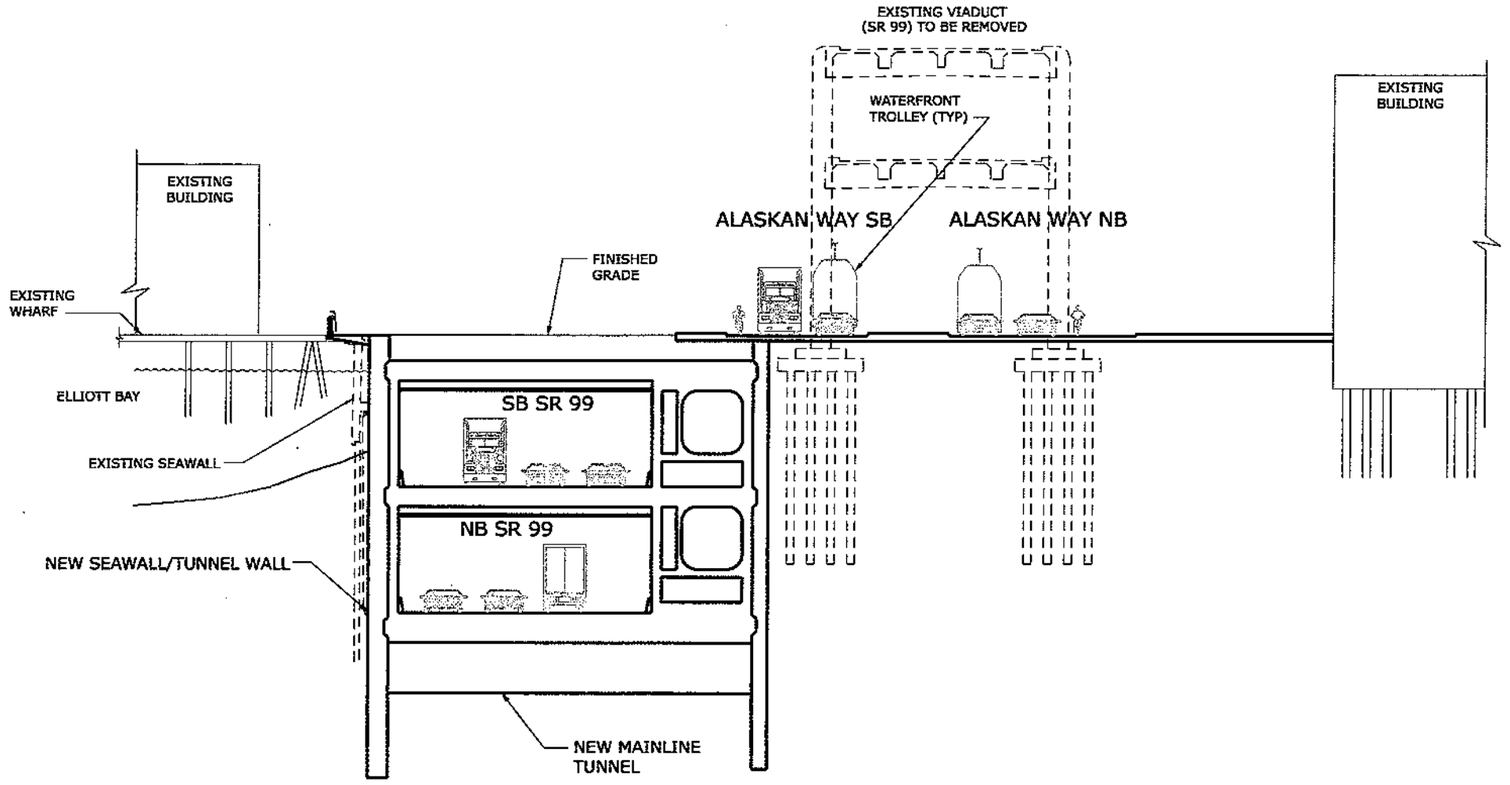
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
CROSS-SECTION FROM FIGURE T04

FIGURE NO
T23



CROSS-SECTION G FROM FIGURE T05

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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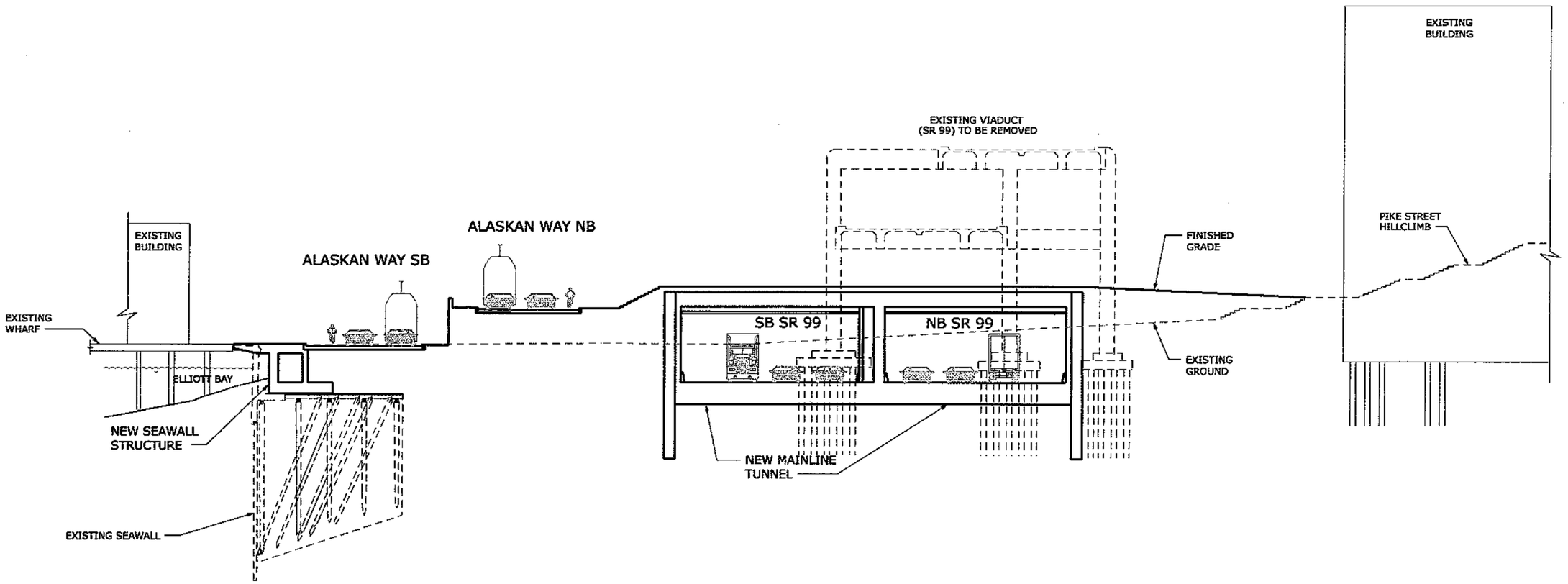
TUNNEL ALTERNATIVE - CENTRAL
CROSS-SECTION FROM FIGURE T05

FIGURE NO
T24



CROSS-SECTION H FROM FIGURE T06

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

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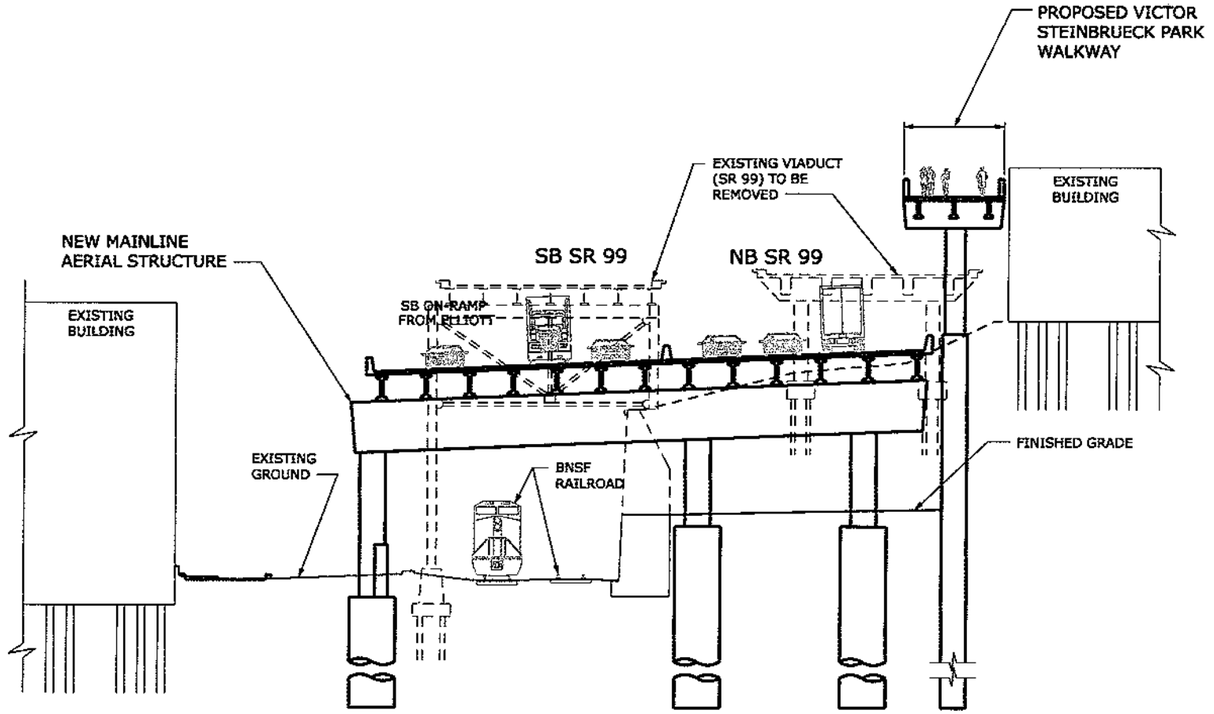
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE -CENTRAL
CROSS-SECTION FROM FIGURE T06

FIGURE NO
T25



CROSS-SECTION J FROM FIGURE T06

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

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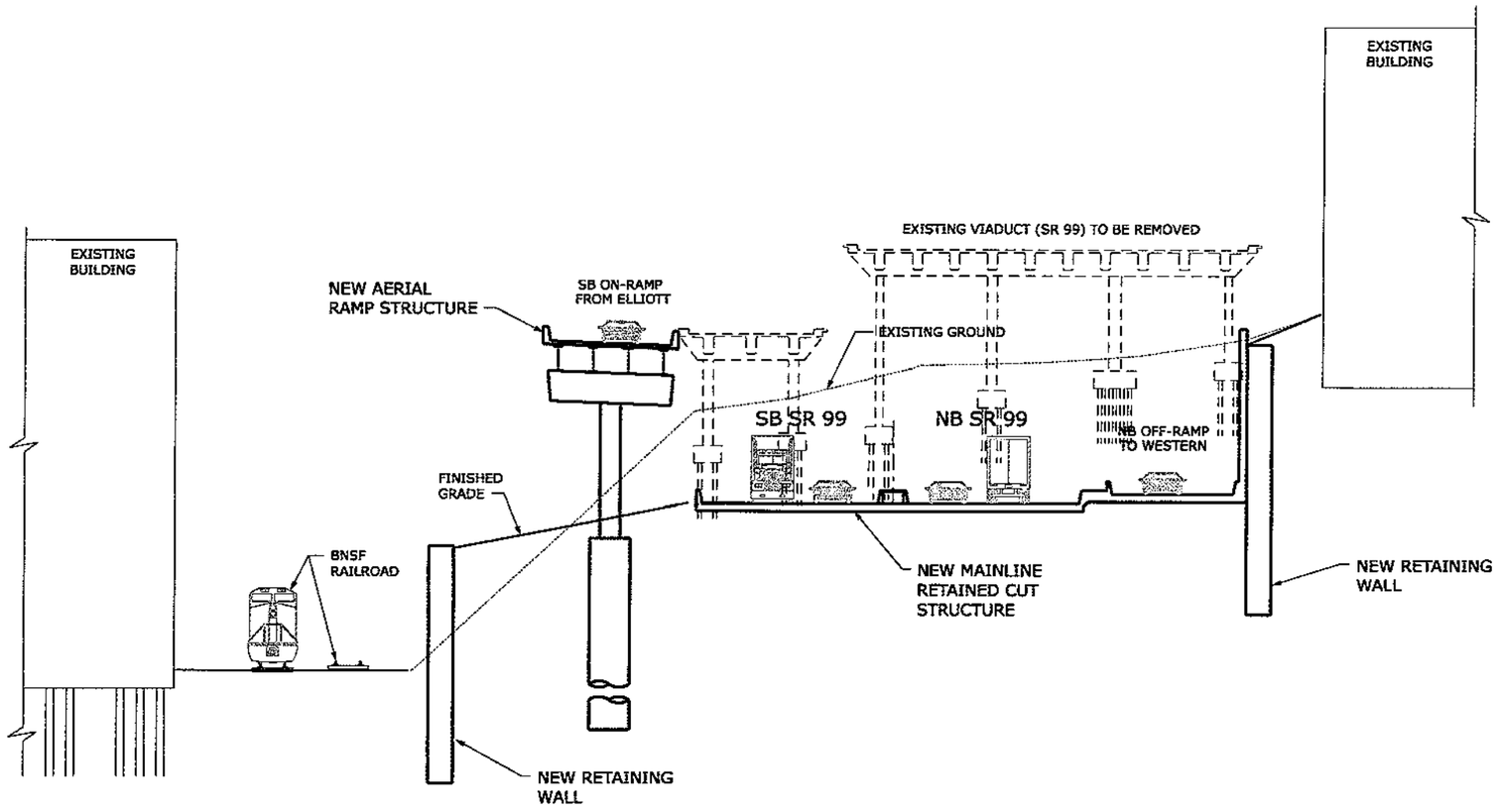
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
CROSS-SECTION FROM FIGURE T06

FIGURE NO
T26

7/13/2006 10:36:54 AM

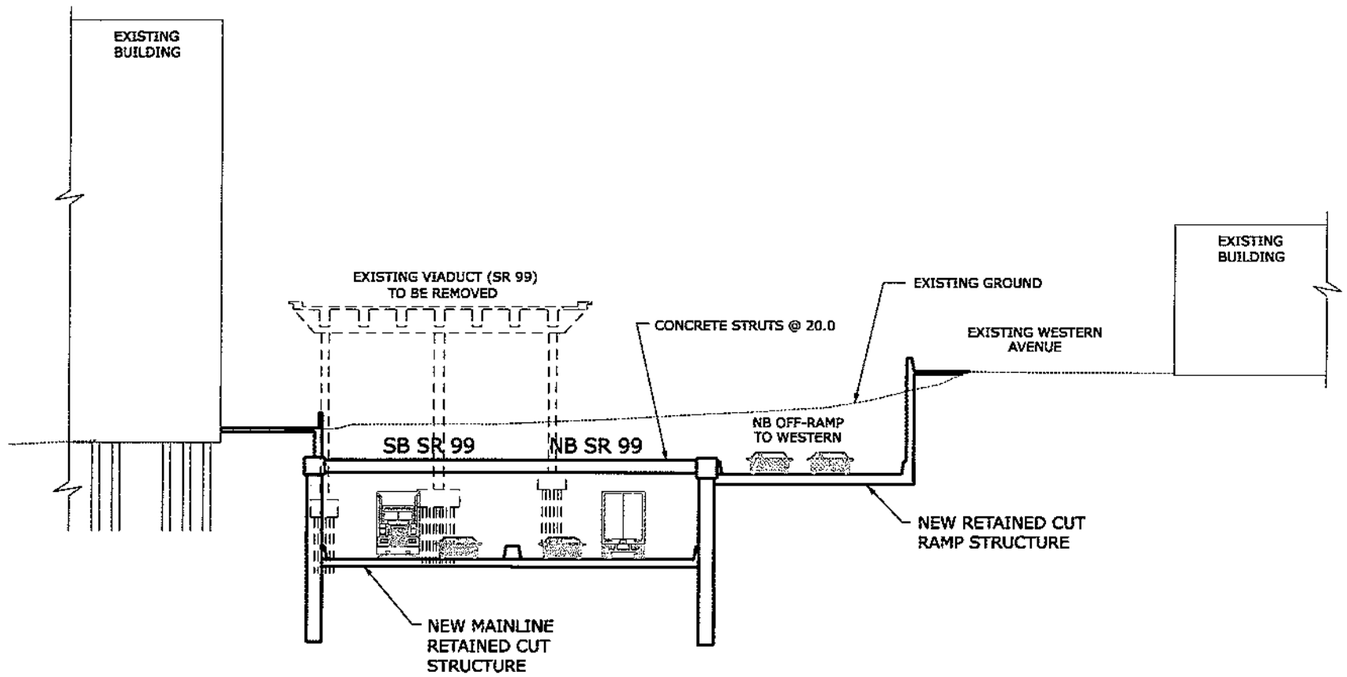


CROSS-SECTION K FROM FIGURE T06

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET



CROSS-SECTION L FROM FIGURE T06

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
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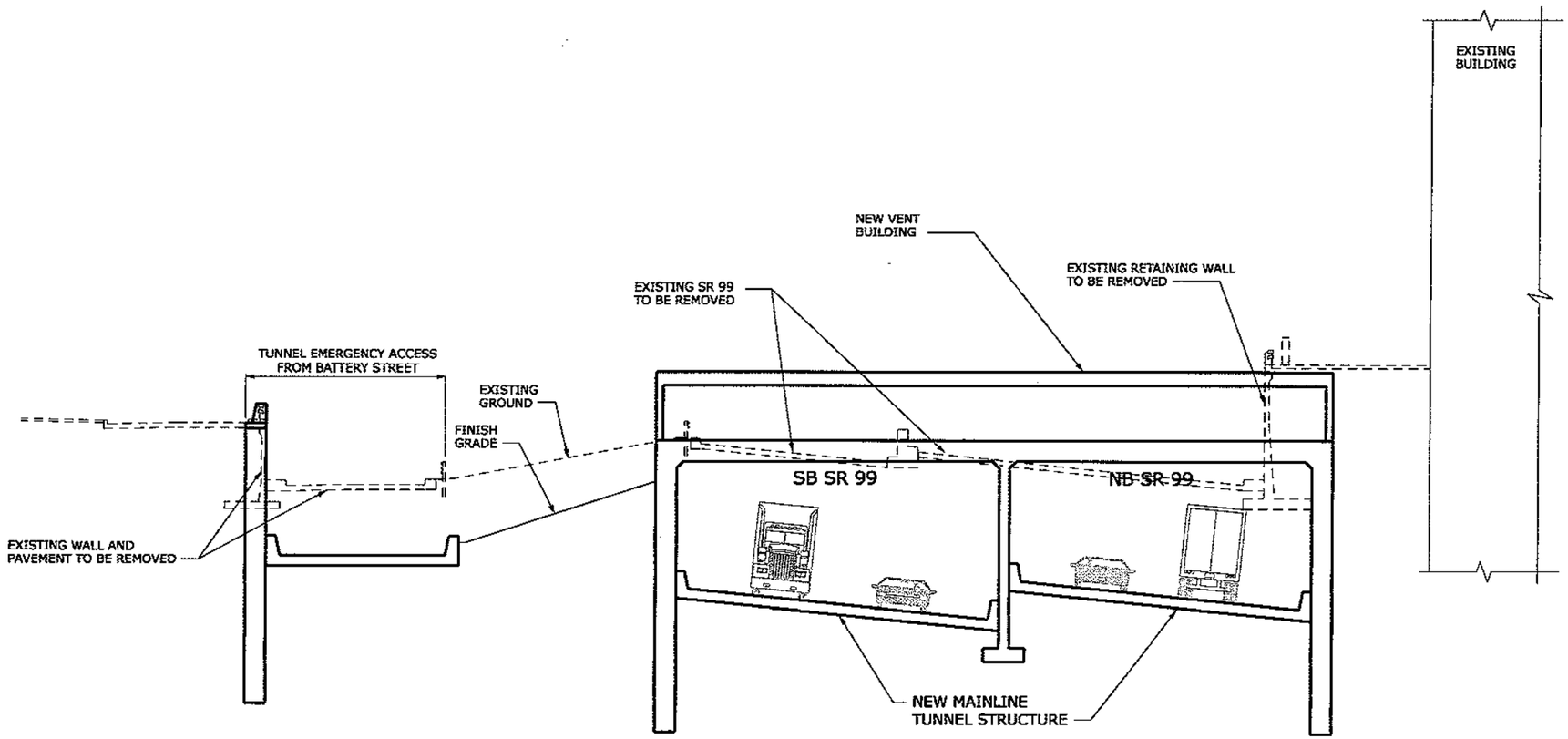
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

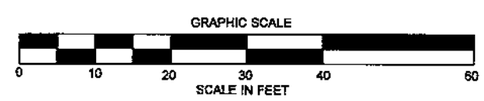
TUNNEL ALTERNATIVE - CENTRAL
CROSS-SECTION FROM FIGURE T06

FIGURE NO
T28

1/15/2008 10:08:22 AM



CROSS-SECTION M FROM FIGURE T07



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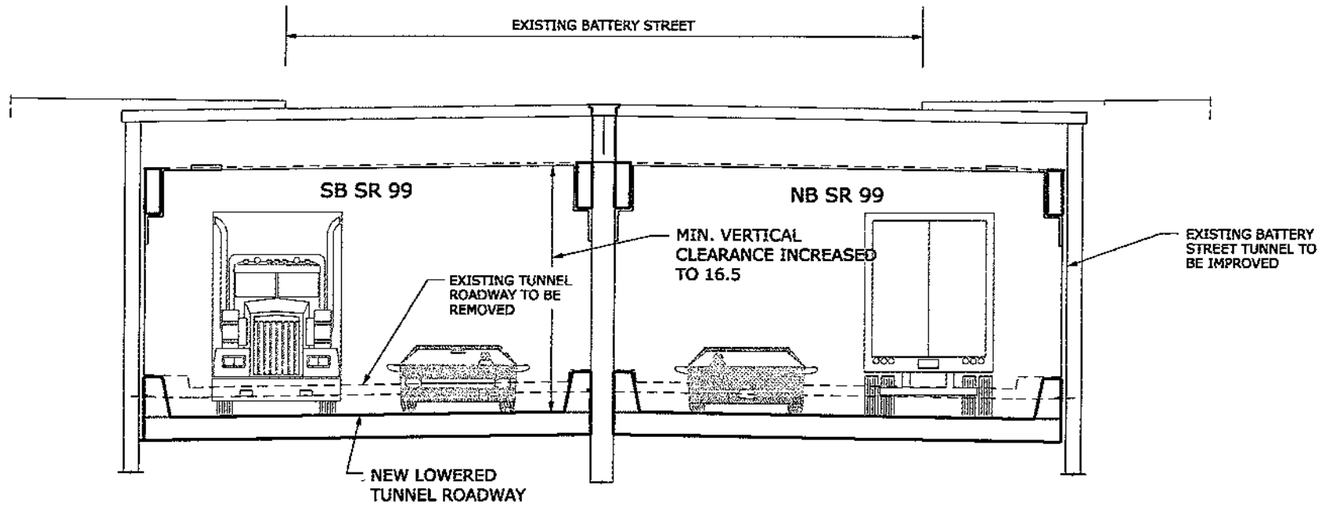
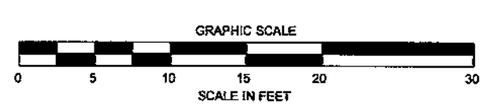
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE
CROSS-SECTION FROM FIGURE T07

FIGURE NO
T29



CROSS-SECTION N FROM FIGURE T07



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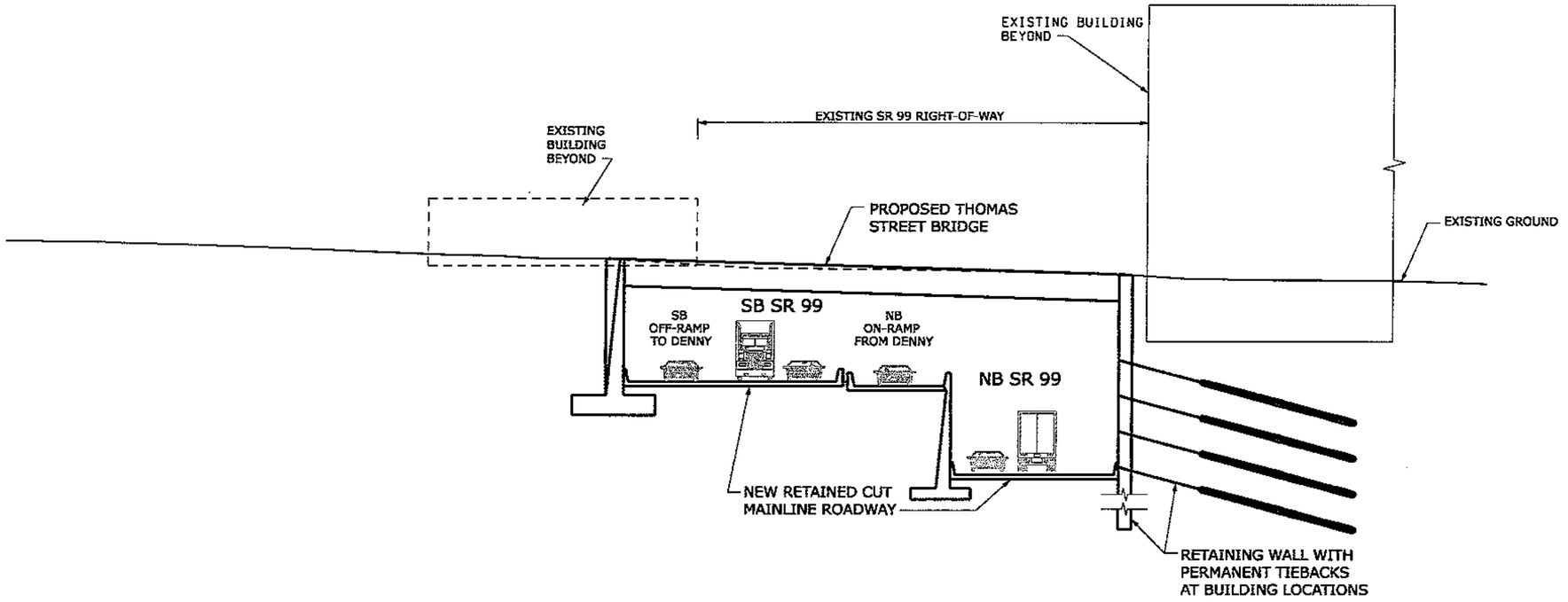
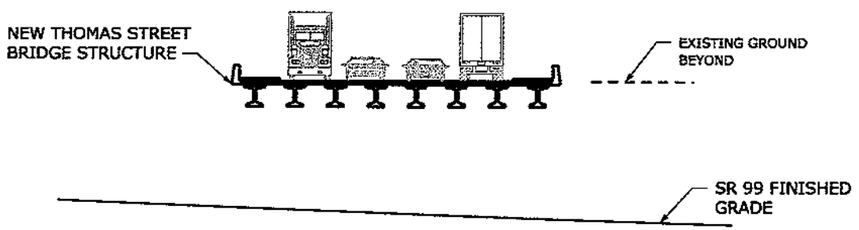
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
CROSS SECTION FROM FIGURE T07

FIGURE NO
T30



CROSS-SECTION P FROM FIGURE T08



CROSS-SECTION Q FROM FIGURE T08

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

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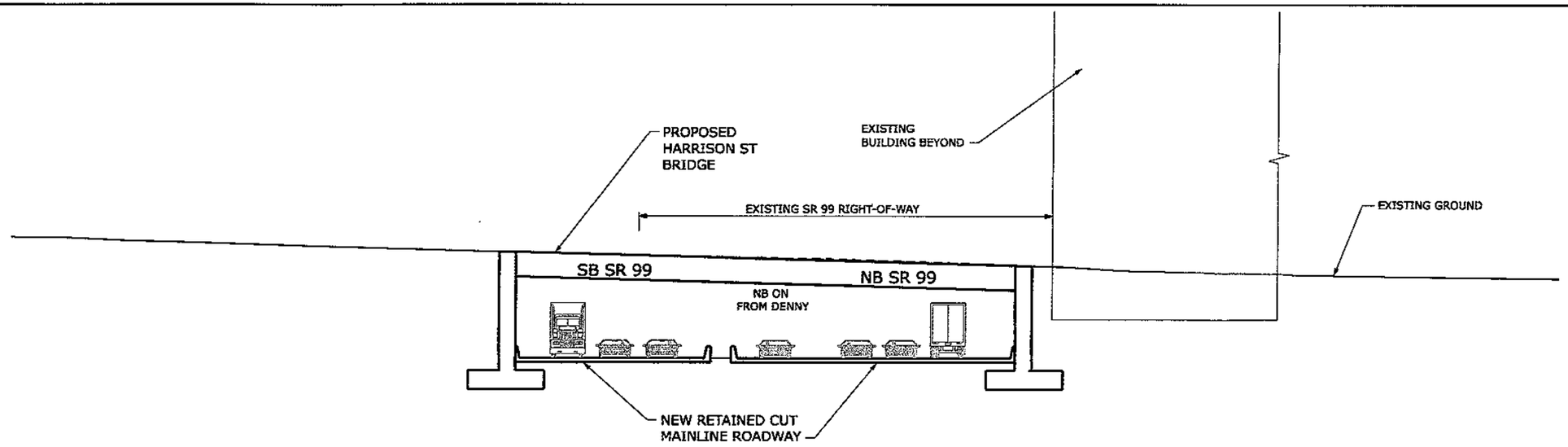
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

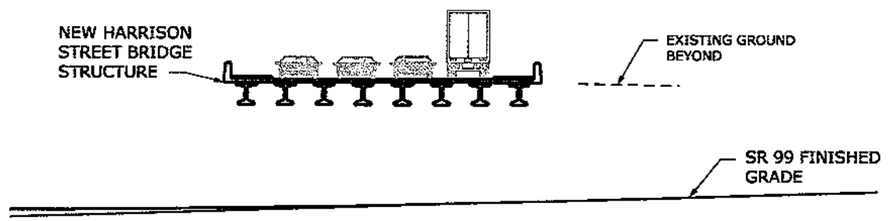
TUNNEL ALTERNATIVE - NORTH
CROSS-SECTIONS FROM FIGURE T08

FIGURE NO
T31

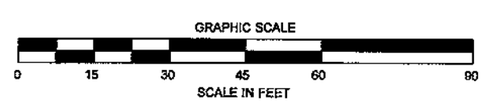
1/13/2006 10:13:20 AM



CROSS-SECTION R FROM FIGURE T08



CROSS-SECTION S FROM FIGURE T08



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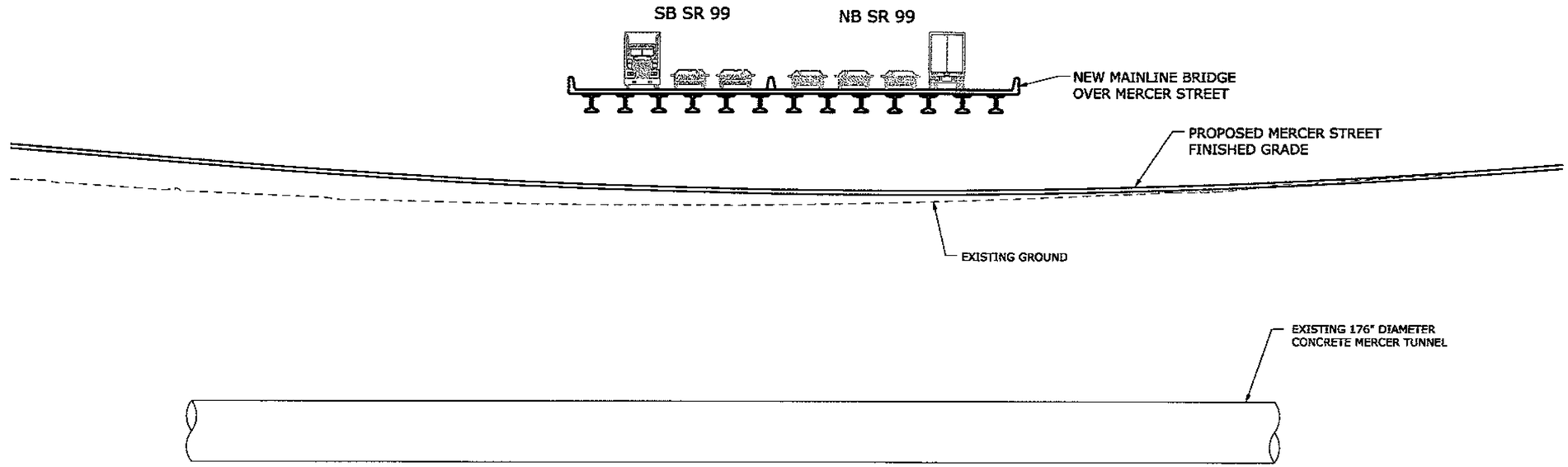
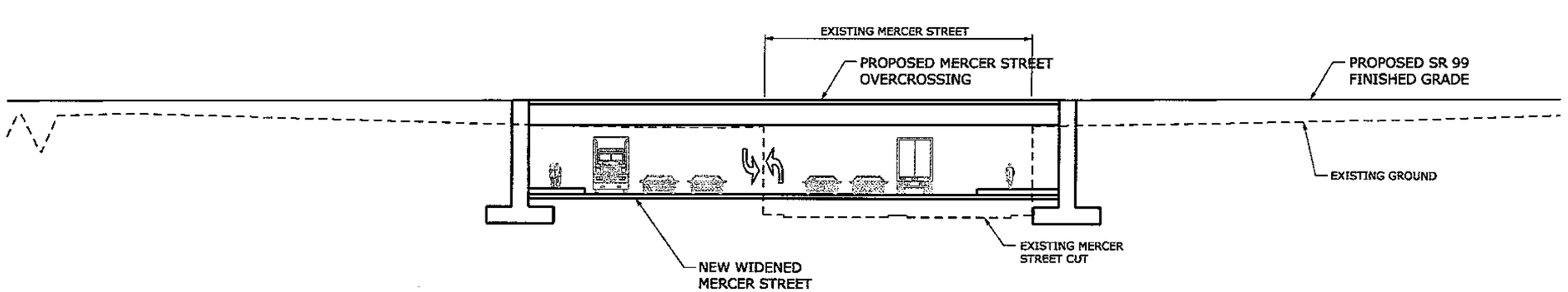
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
CROSS-SECTIONS FROM FIGURE T08

FIGURE NO
T32



CROSS-SECTION T FROM FIGURE T09

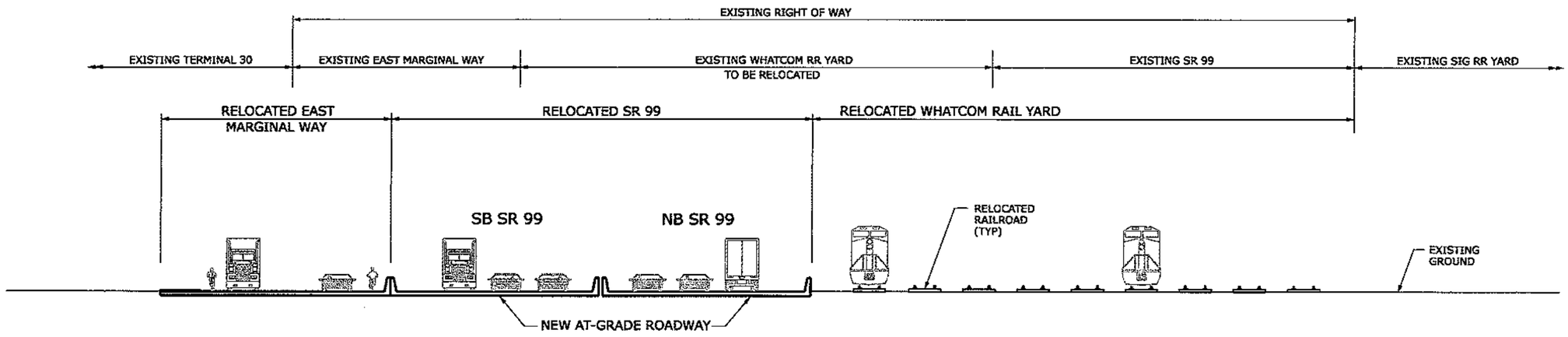


CROSS-SECTION U FROM FIGURE T09

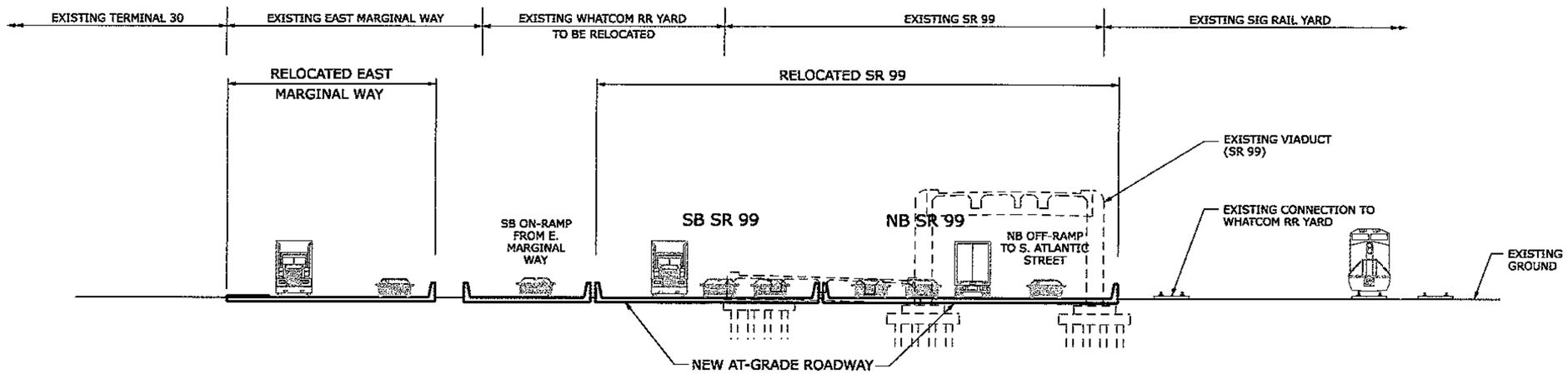
GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET



CROSS-SECTION A FROM FIGURE T11



CROSS-SECTION B FROM FIGURE T11

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

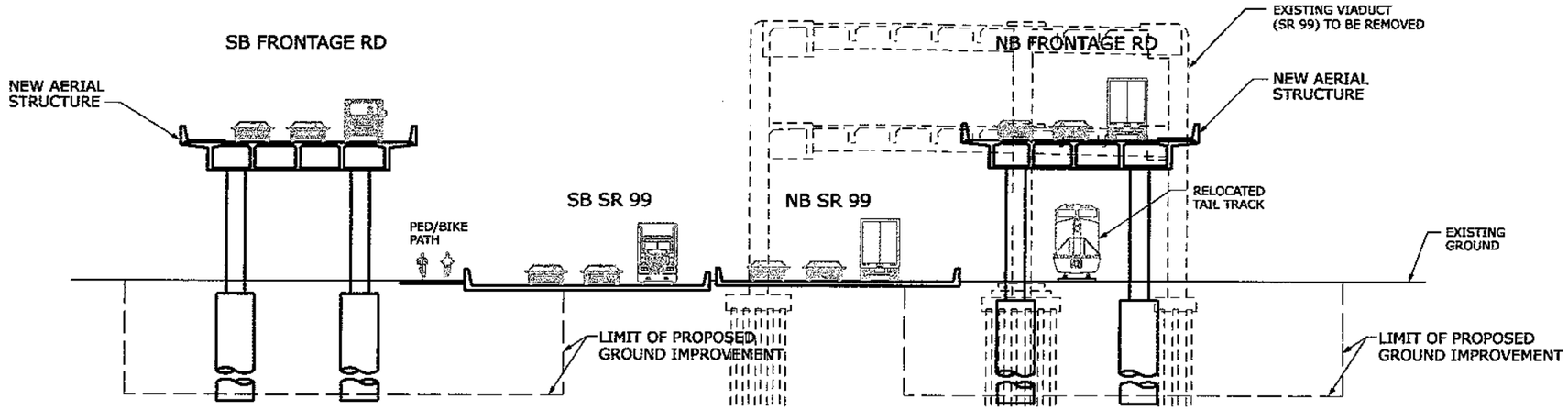
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH OPTION
CROSS-SECTIONS FROM FIGURE T11

FIGURE NO
T34

1/13/2006 10:12:48 AM



SR 519 INTERCHANGE
CROSS-SECTION C FROM FIGURE T12

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

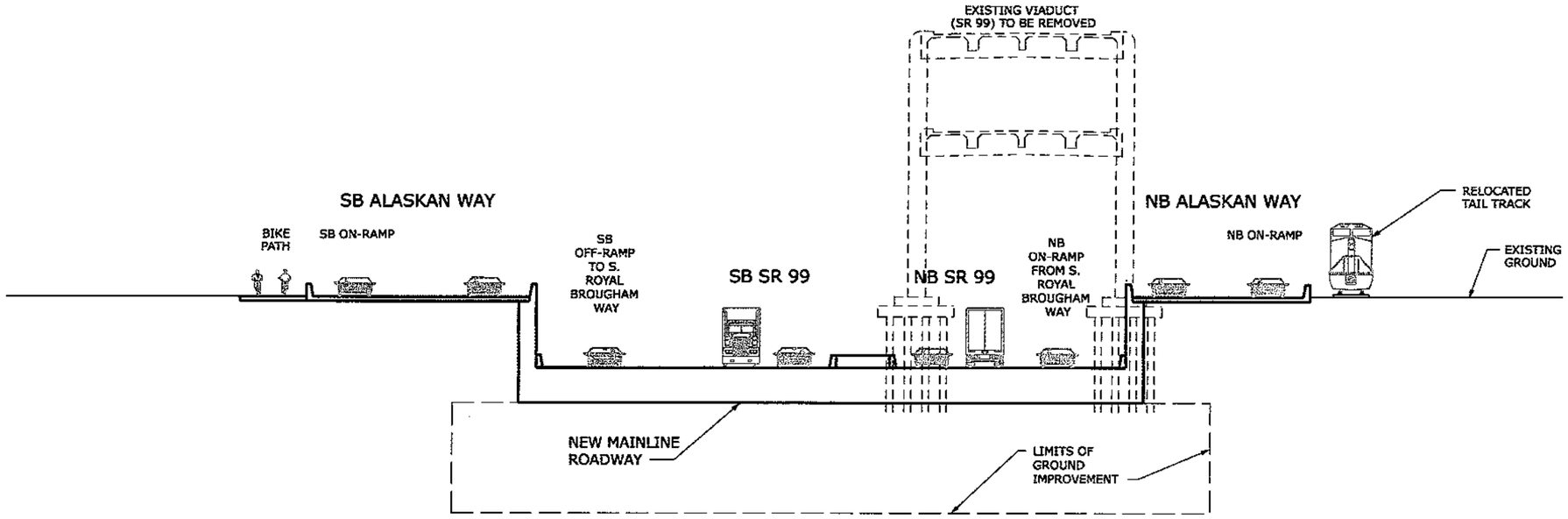
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

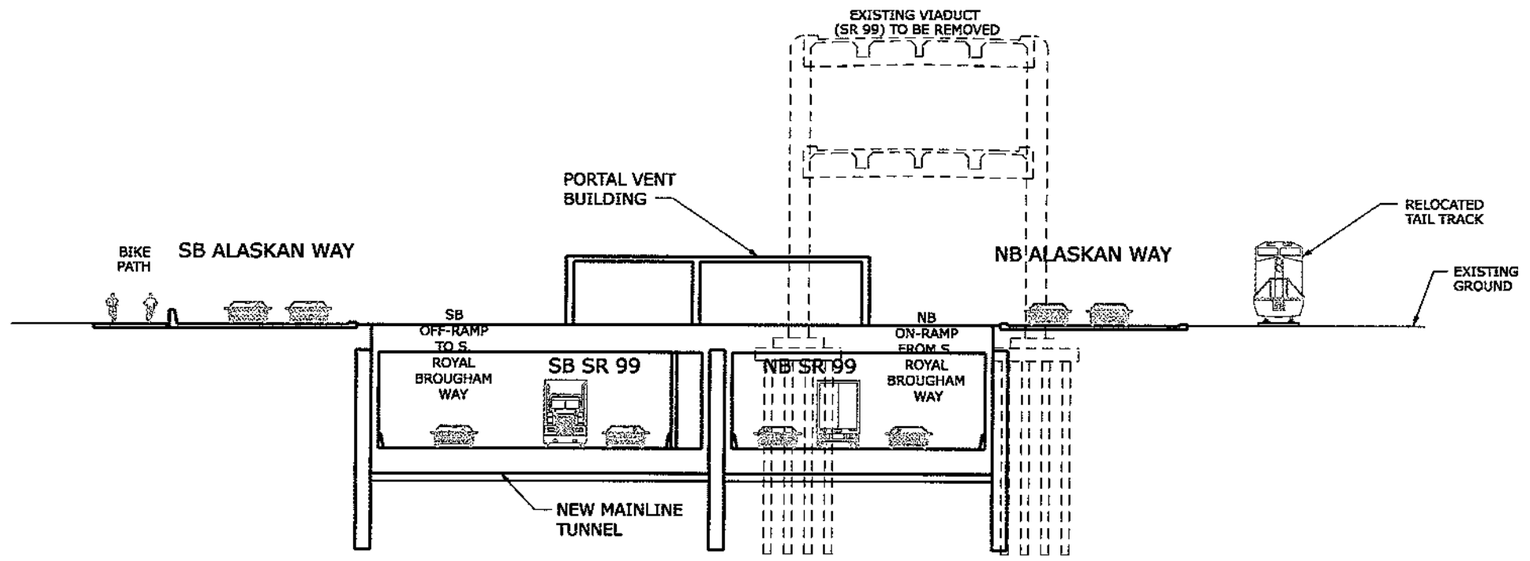
TUNNEL ALTERNATIVE - SOUTH OPTION
CROSS-SECTION FROM FIGURE T12

FIGURE NO
T35

1/13/2006 10:13:36 AM



CROSS-SECTION D FROM FIGURE T13



CROSS-SECTION E FROM FIGURE T13

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

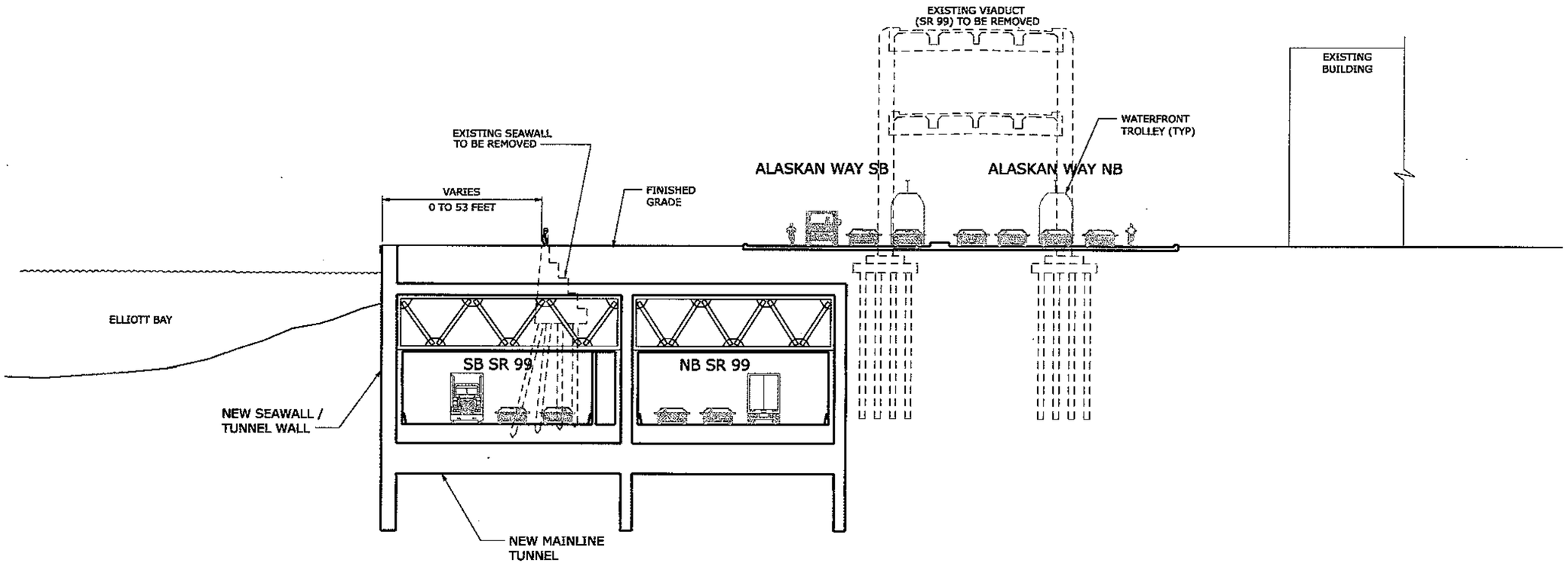
Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
CROSS-SECTIONS FROM FIGURE T13

FIGURE NO
T36



CROSS-SECTION F FROM FIGURE T13

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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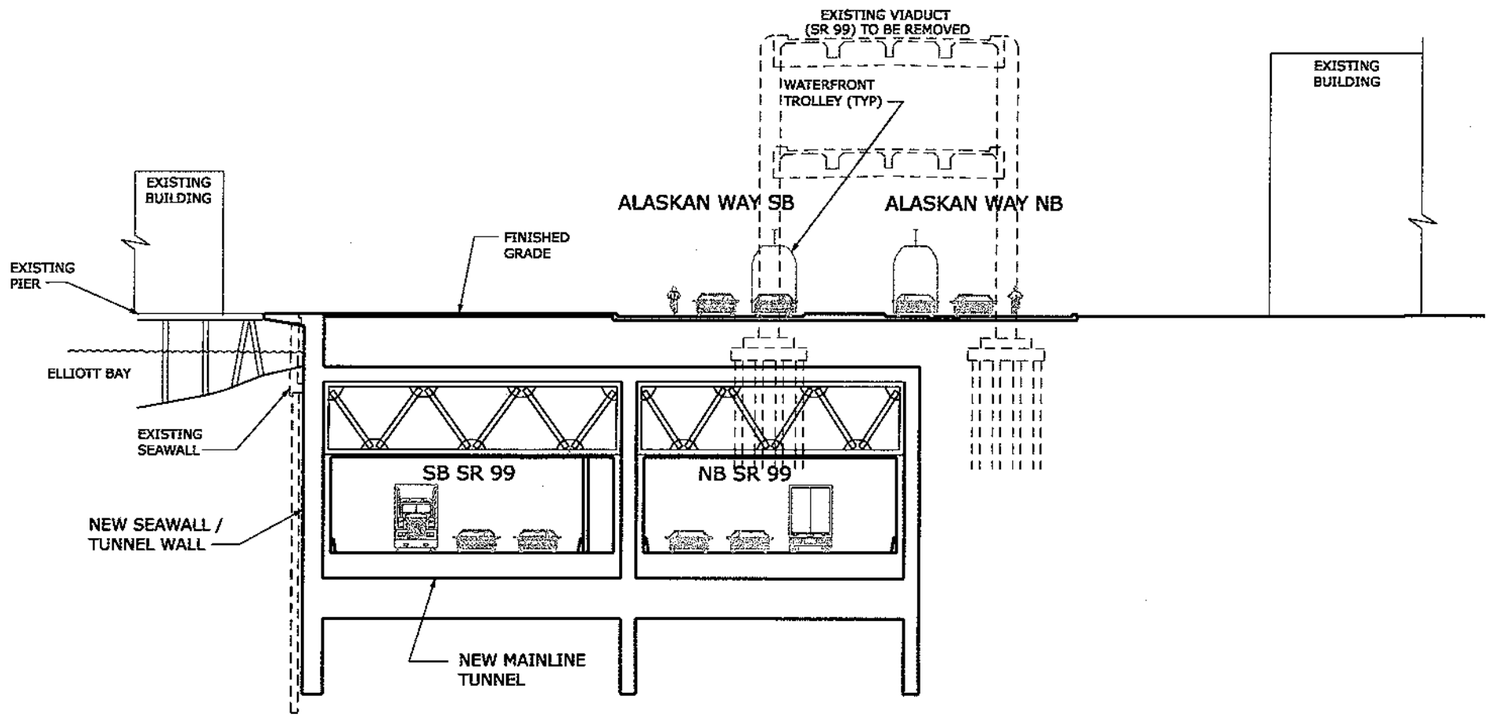
TUNNEL ALTERNATIVE - CENTRAL OPTION
CROSS-SECTION FROM FIGURE T13

FIGURE NO
T37

3/31/2006 9:59:21 AM

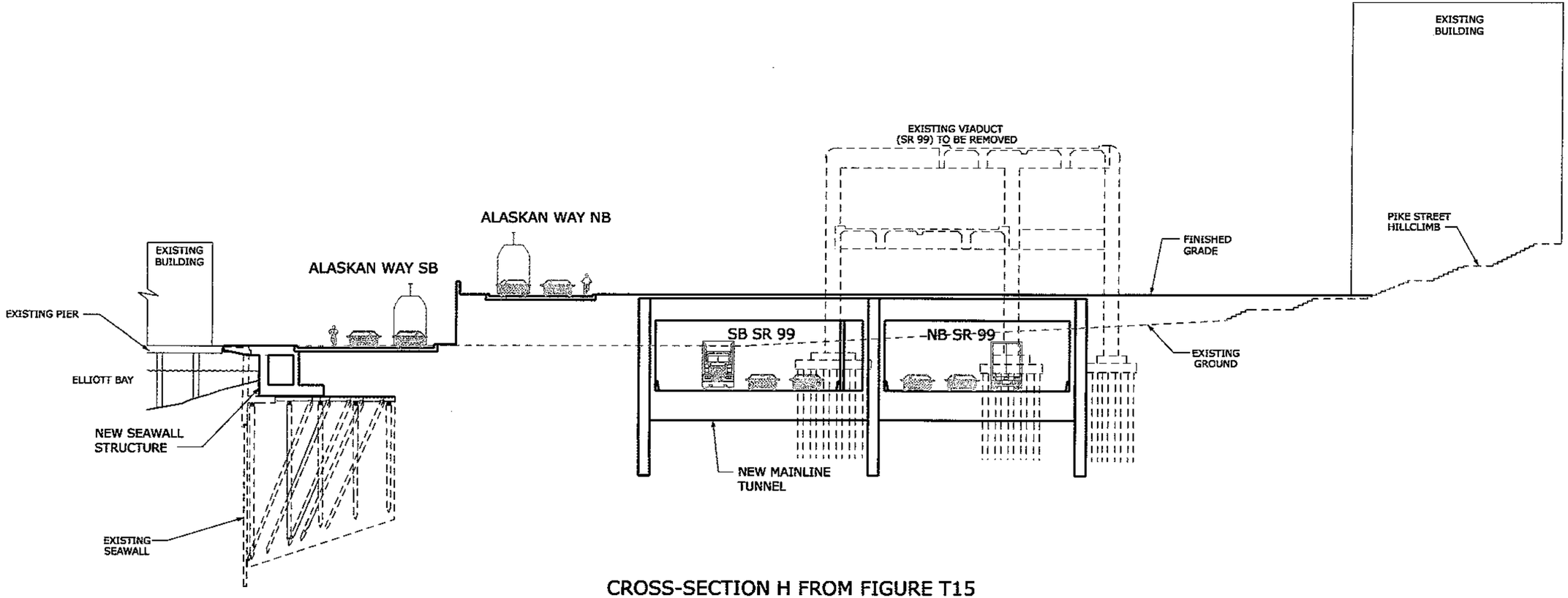


CROSS-SECTION G FROM FIGURE T14

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET



CROSS-SECTION H FROM FIGURE T15

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

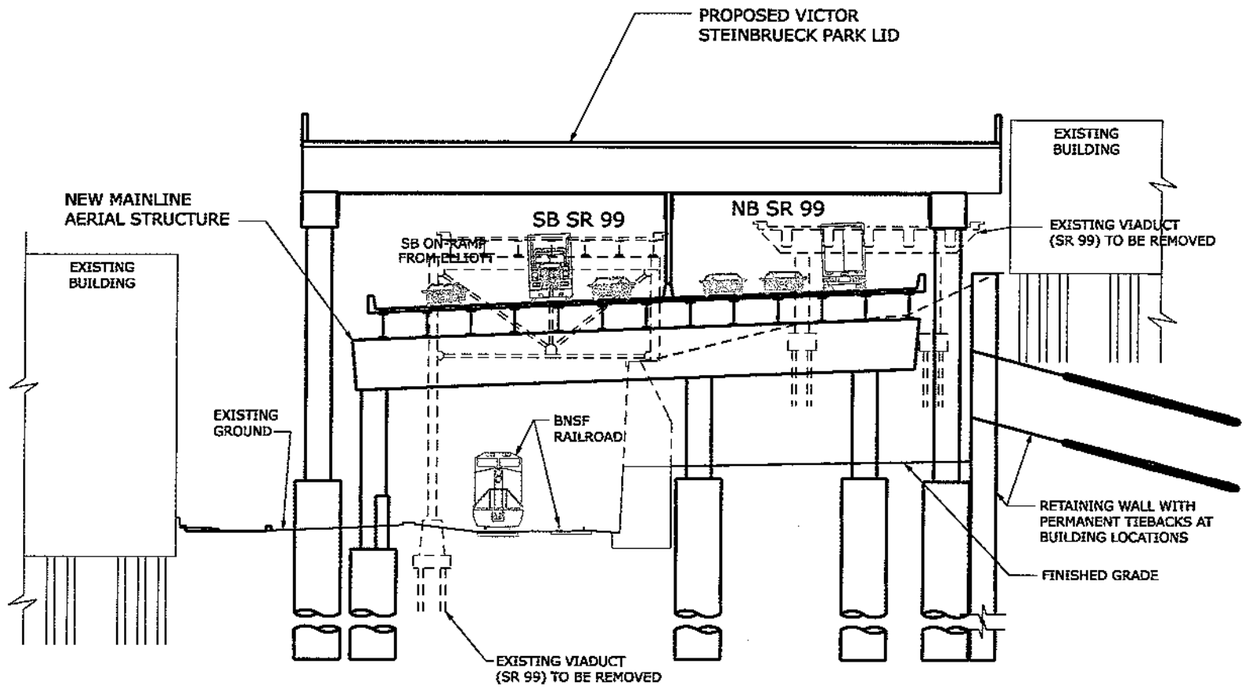
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
CROSS-SECTION FROM FIGURE T15

FIGURE NO
T39

bridge

1/13/2006 10:19:08 AM



CROSS-SECTION J FROM FIGURE T15

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

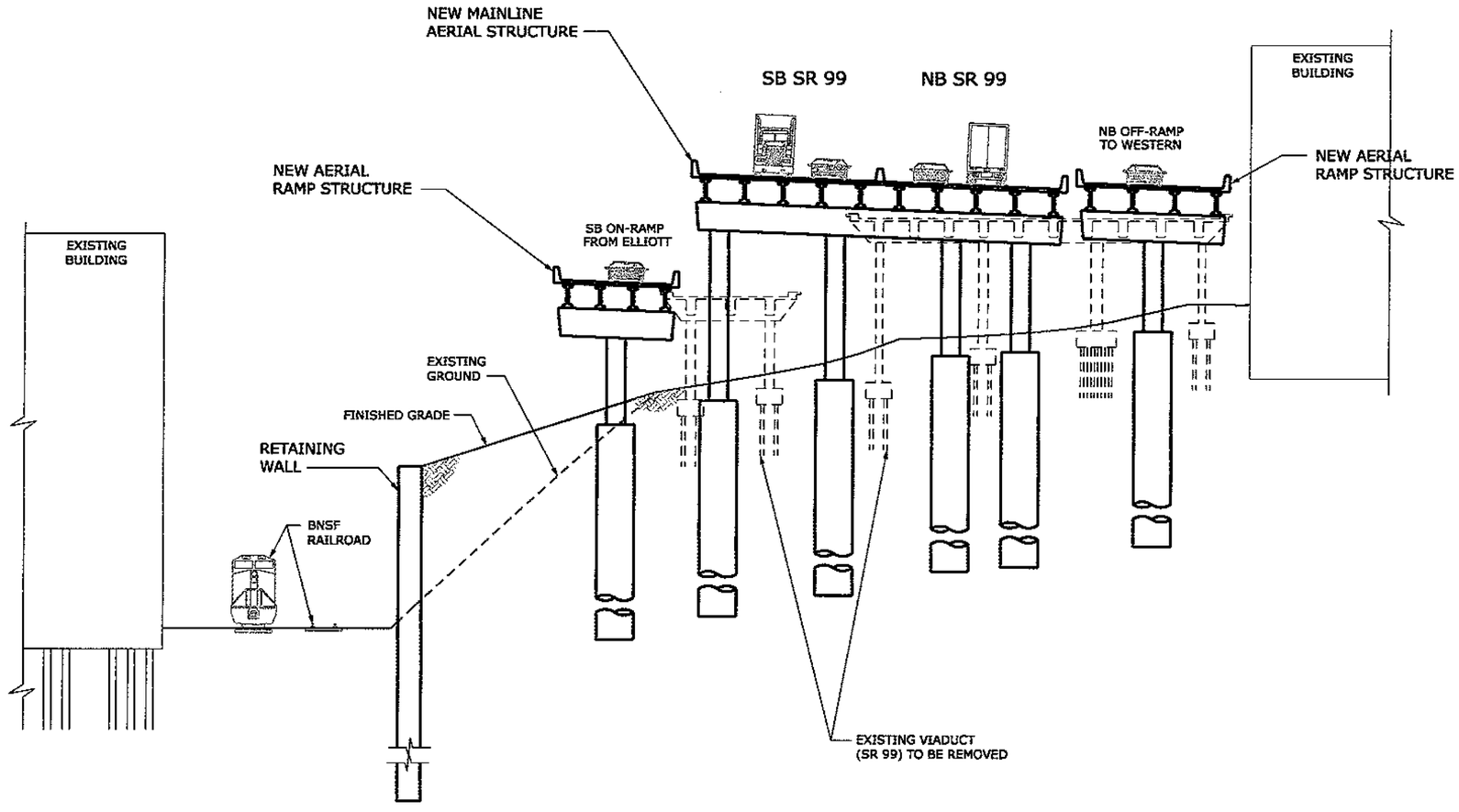
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

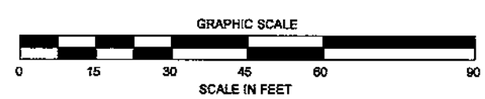
TUNNEL ALTERNATIVE - CENTRAL OPTION
CROSS-SECTION FROM FIGURE T15

FIGURE NO
T40

1/13/2006 10:19:49 AM



CROSS-SECTION K FROM FIGURE T15



U.S. Department of Transportation
Federal Highway Administration

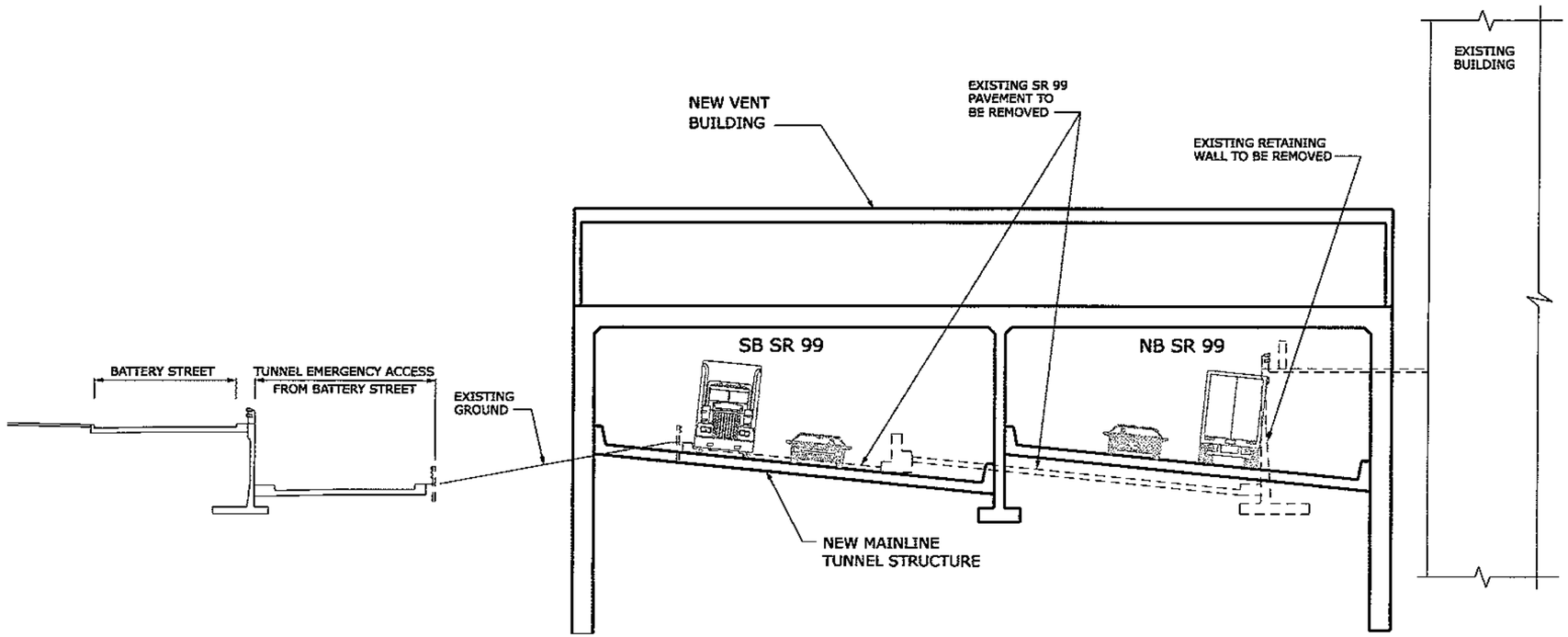
Washington State Department of Transportation

City of Seattle

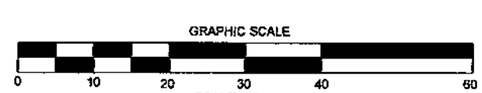
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
CROSS-SECTION FROM FIGURE T15

FIGURE NO
T41



CROSS-SECTION L FROM FIGURE T16



U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

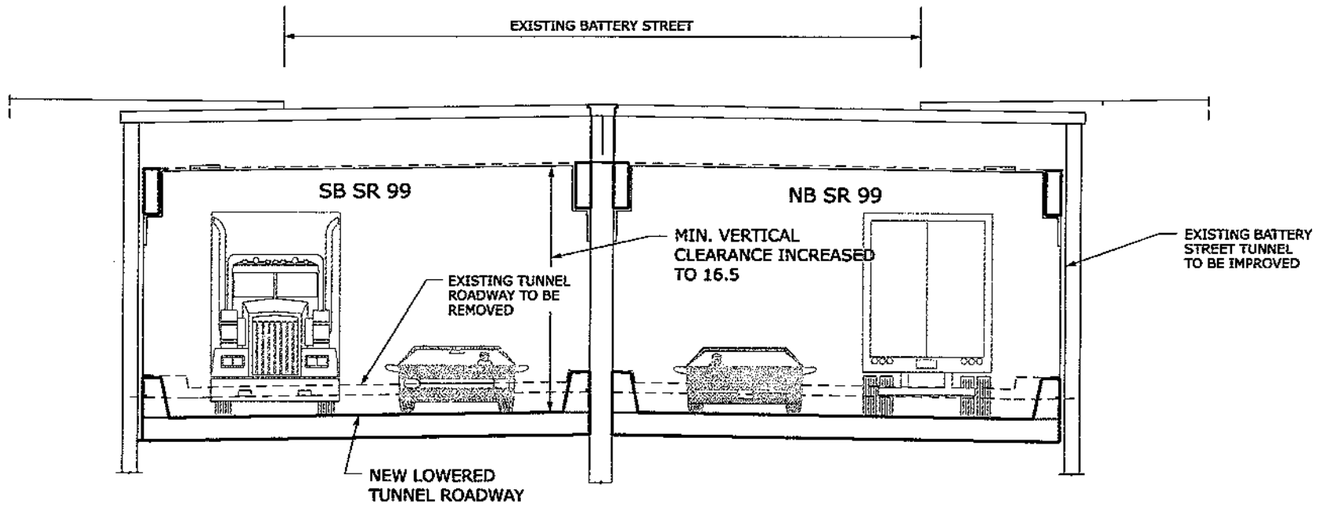
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

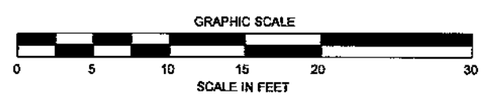
TUNNEL ALTERNATIVE - NORTH OPTION
CROSS-SECTION FROM FIGURE T16

FIGURE NO
T42

1/13/2006 10:21:11 AM



CROSS-SECTION M FROM FIGURE T16



U.S. Department of Transportation
Federal Highway Administration

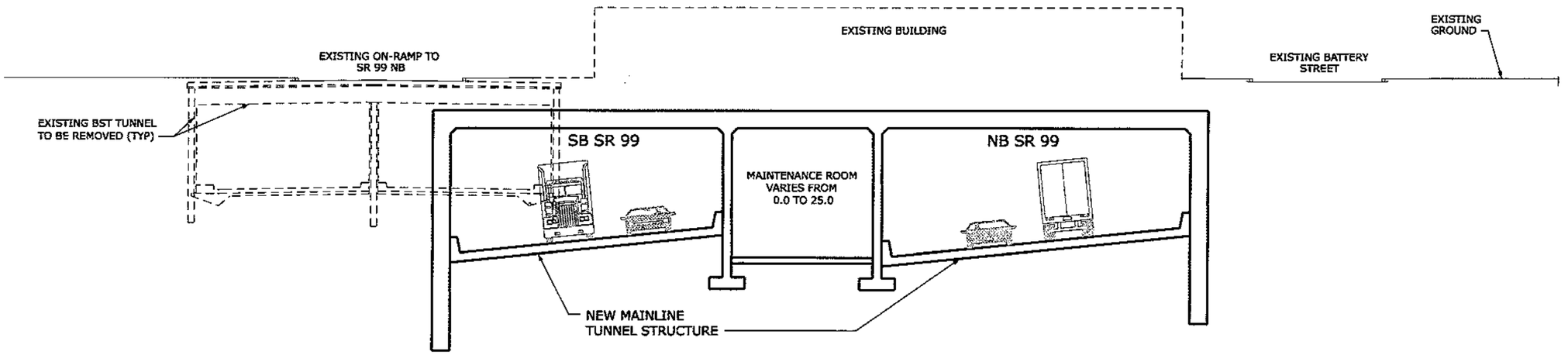
Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
CROSS SECTION FROM FIGURE T16

FIGURE NO
T43



CROSS-SECTION N FROM FIGURE T16

GRAPHIC SCALE

0 10 20 30 40 60

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
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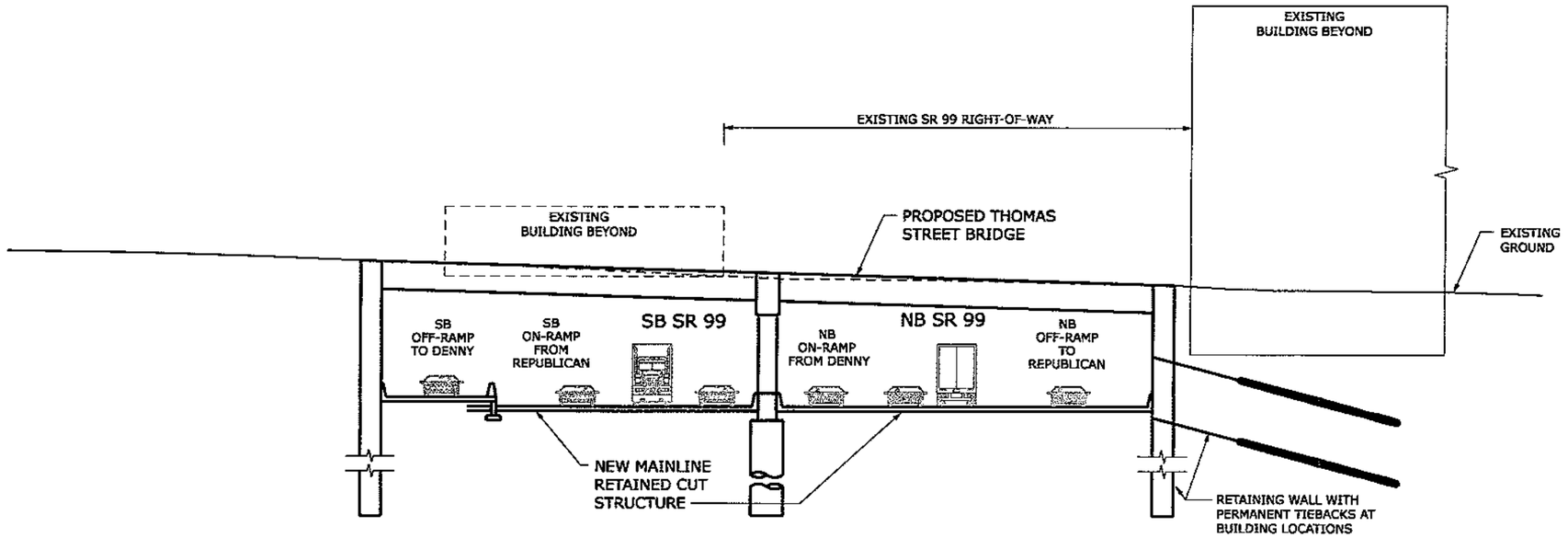
TUNNEL ALTERNATIVE - NORTH OPTION
CROSS-SECTION FROM FIGURE T16

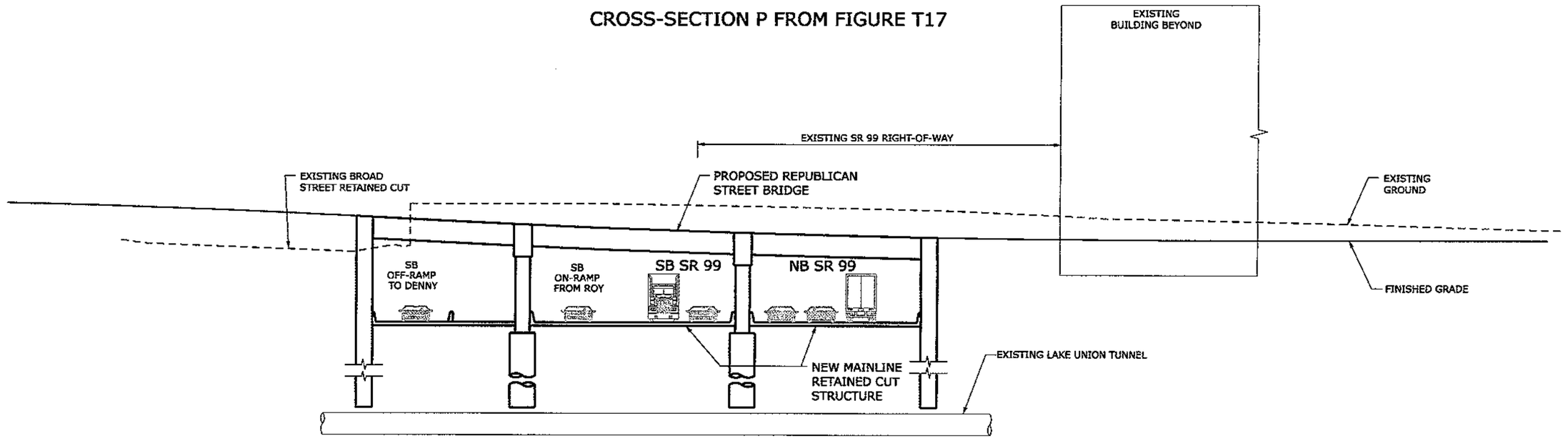
FIGURE NO
T44

for copy

1/13/2006 10:22:37 AM



CROSS-SECTION P FROM FIGURE T17



CROSS-SECTION Q FROM FIGURE T0 T17

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

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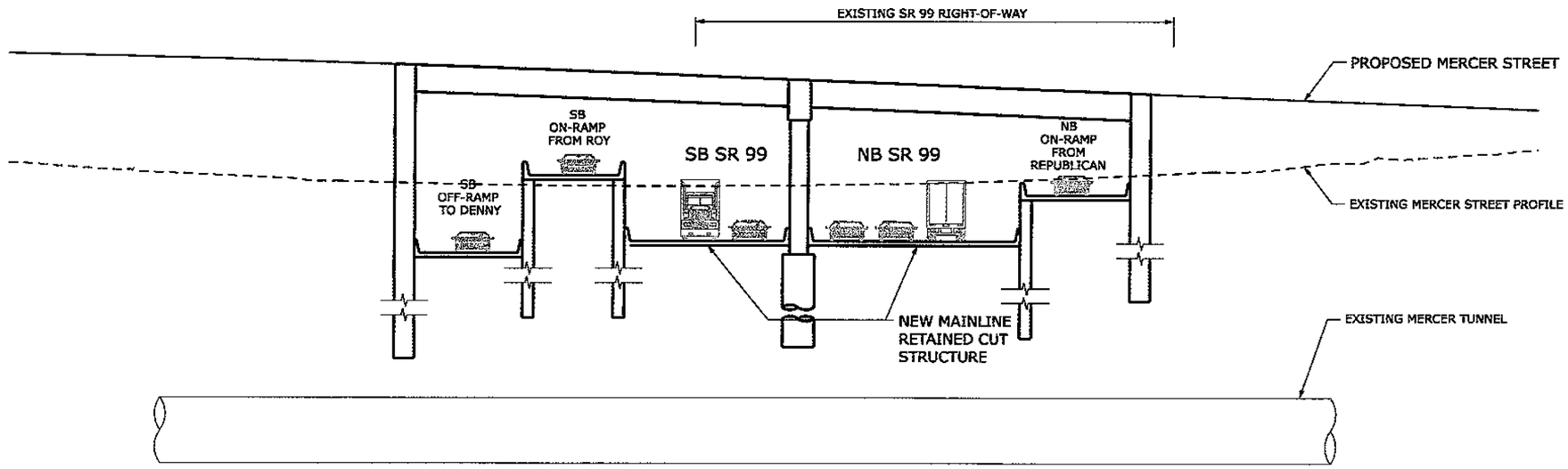
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

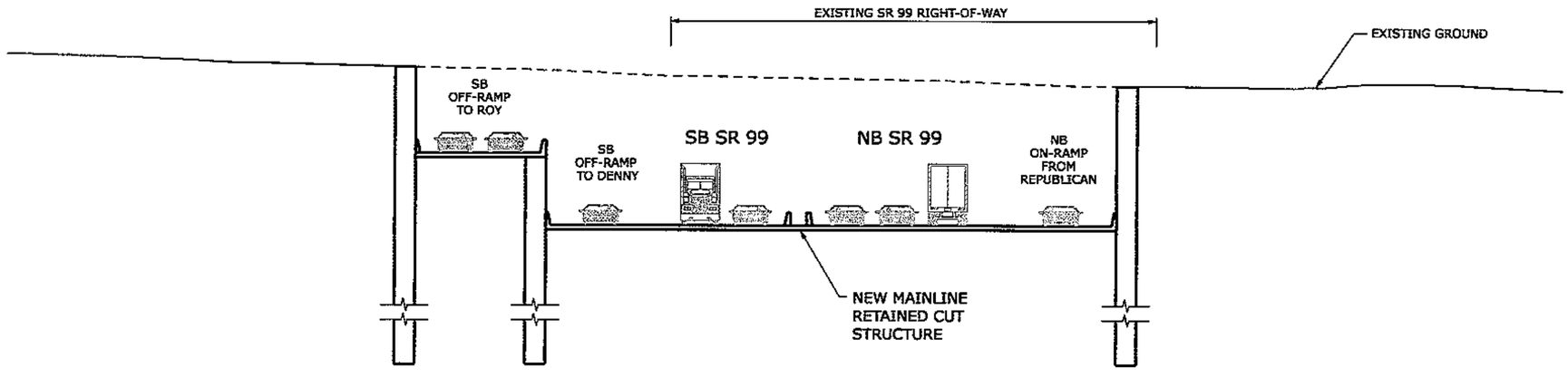
TUNNEL ALTERNATIVE - NORTH OPTION
CROSS-SECTIONS FROM FIGURE T17

FIGURE NO
T45

bwhitney
1/23/2008 10:25:21 AM



CROSS-SECTION C FROM FIGURE T18



CROSS-SECTION D FROM FIGURE T18

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

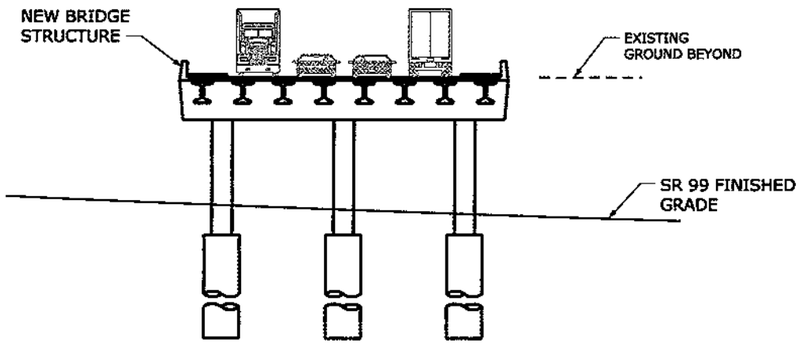
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
CROSS-SECTIONS FROM FIGURE T18

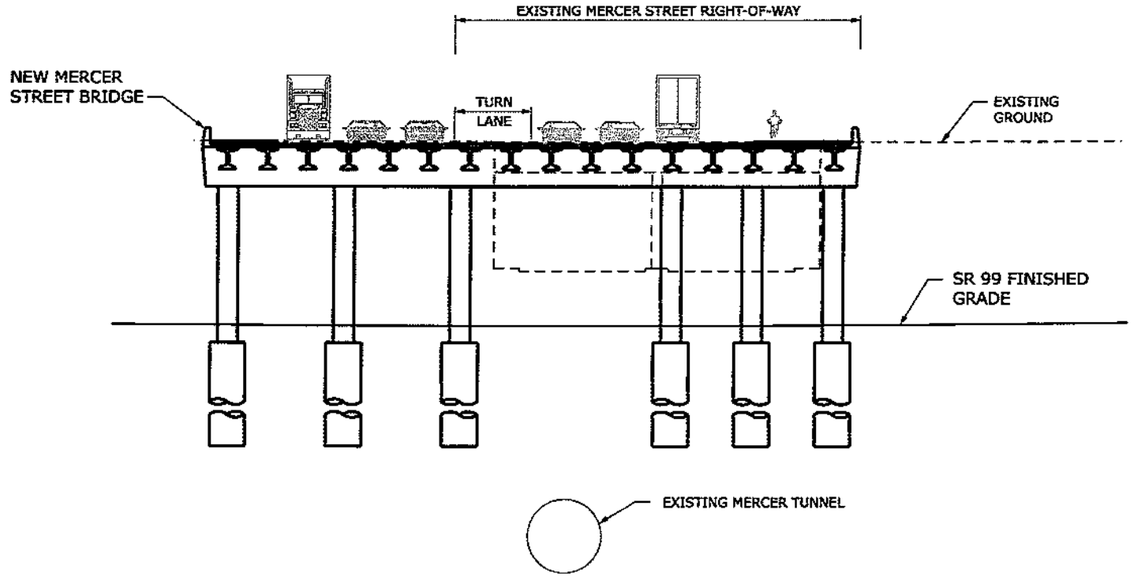
FIGURE NO
T46

3/13/2006 10:24:00 AM

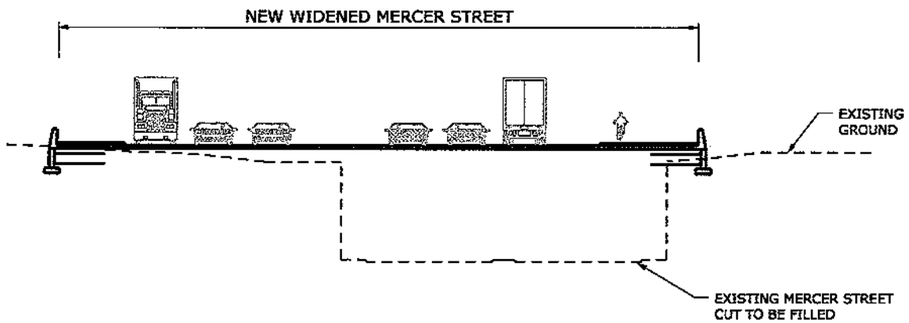


CROSS-SECTION E FROM FIGURE T17

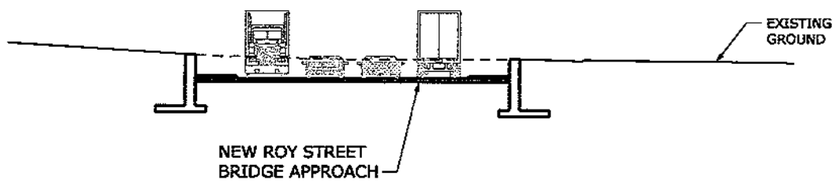
THOMAS STREET BRIDGE SHOWN.
HARRISON STREET BRIDGE SIMILAR.
REPUBLICAN STREET AND ROY STREET BRIDGES SIMILAR BUT WITH CENTER COLUMN/FOUNDATION REMOVED.



CROSS-SECTION F FROM FIGURE T18



CROSS-SECTION G FROM FIGURE T18



CROSS-SECTION H FROM FIGURE T18

GRAPHIC SCALE
0 15 30 45 60 90
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

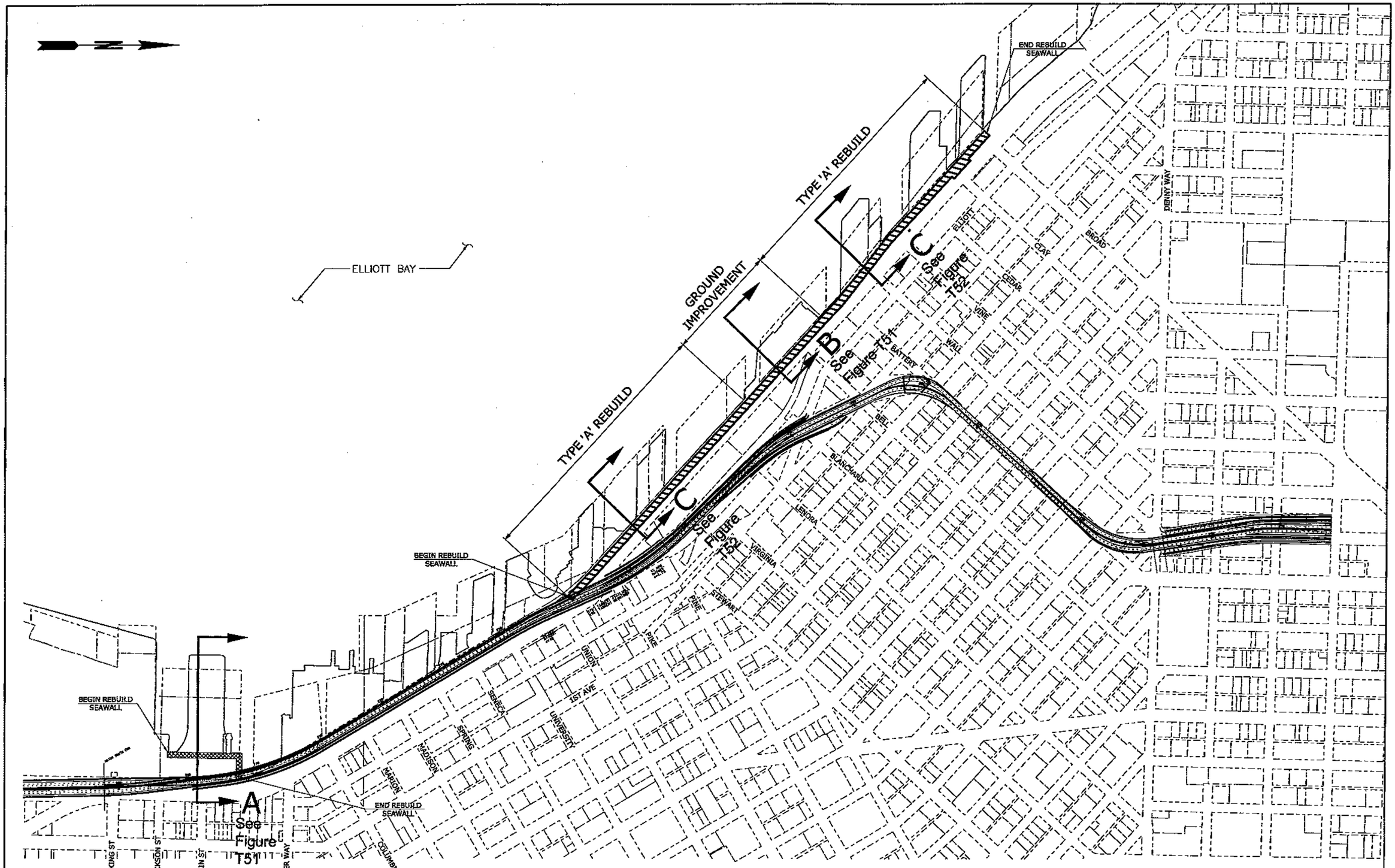
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
CROSS-SECTIONS FROM FIGURES T17, T18

FIGURE NO
T47

bvtchr
1/13/2006 10:34:45 AM



U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

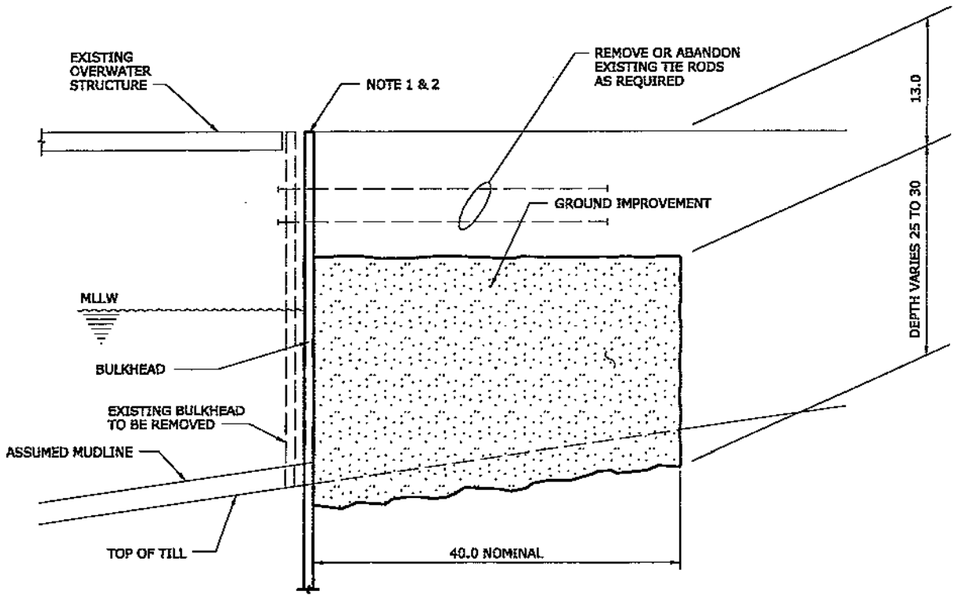
TUNNEL ALTERNATIVE - SEAWALL
GENERAL LAYOUT AND KEY PLAN

FIGURE NO
T50

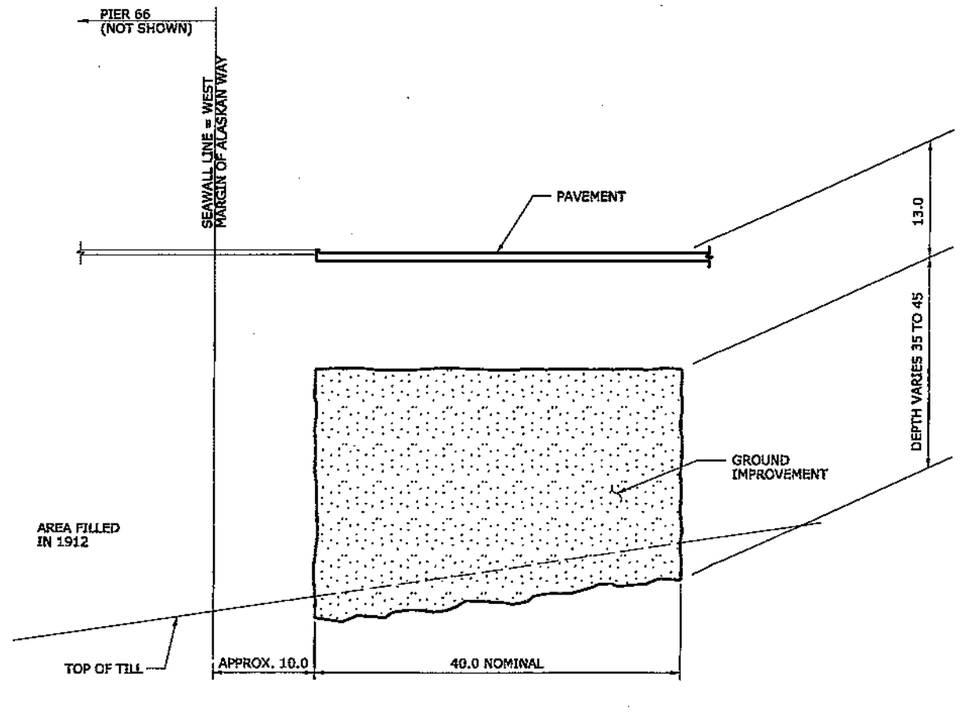
11/4/2005 11:45:38 AM

NOTES:

1. THE EXACT LOCATION OF THE REPLACEMENT BULKHEAD HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING BULKHEAD OR IN THE SAME LOCATION AS THE EXISTING BULKHEAD.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING BULKHEAD TO FACILITATE CONSTRUCTION.



SECTION A FROM FIGURE T50
GROUND IMPROVEMENT @ PIER 48 BULKHEAD



SECTION B FROM FIGURE T50
GROUND IMPROVEMENT @ PIER 66

GRAPHIC SCALE
0 8 16
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

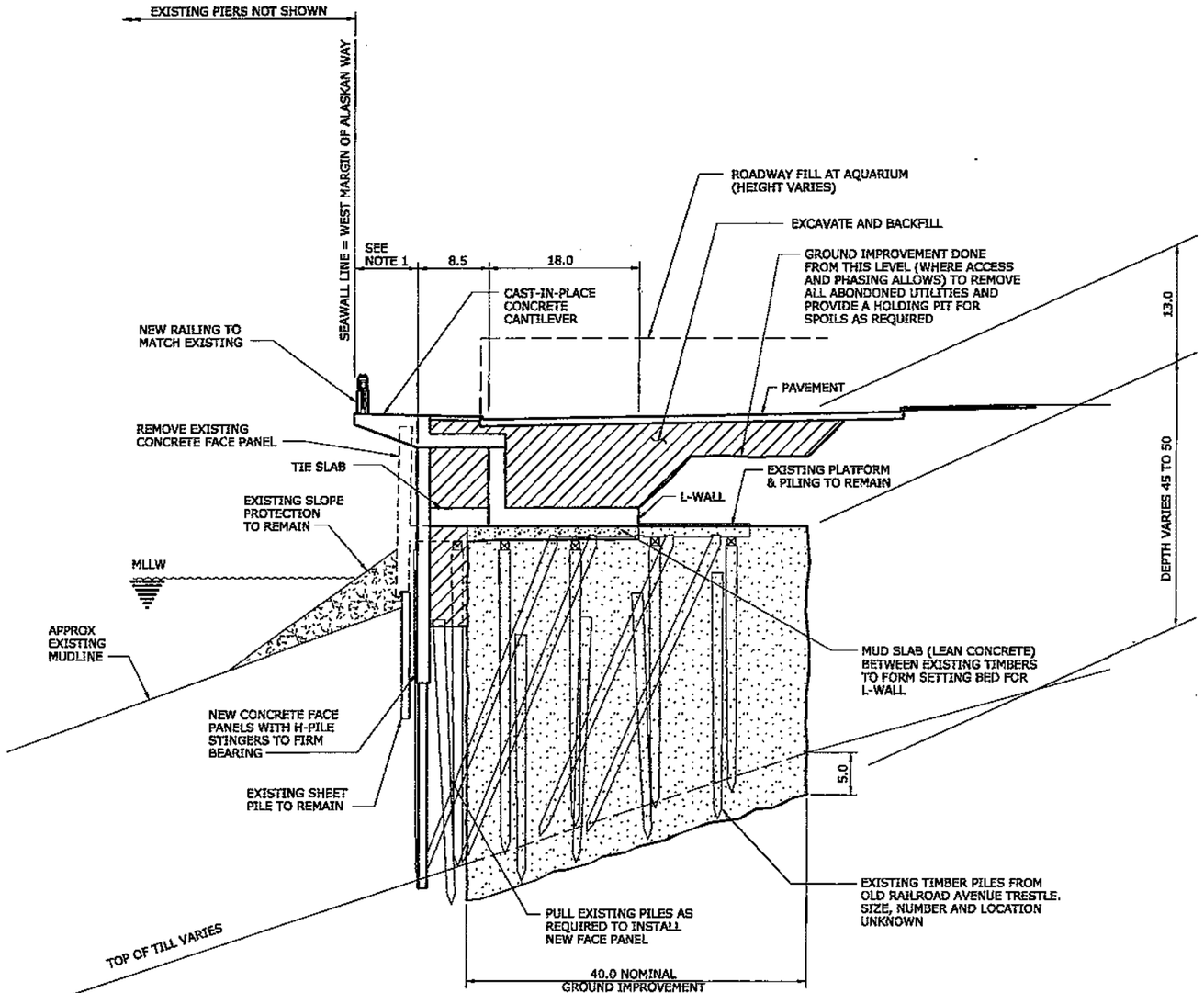
Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SEAWALL
CROSS-SECTIONS, FROM FIGURE T50

FIGURE NO
T51

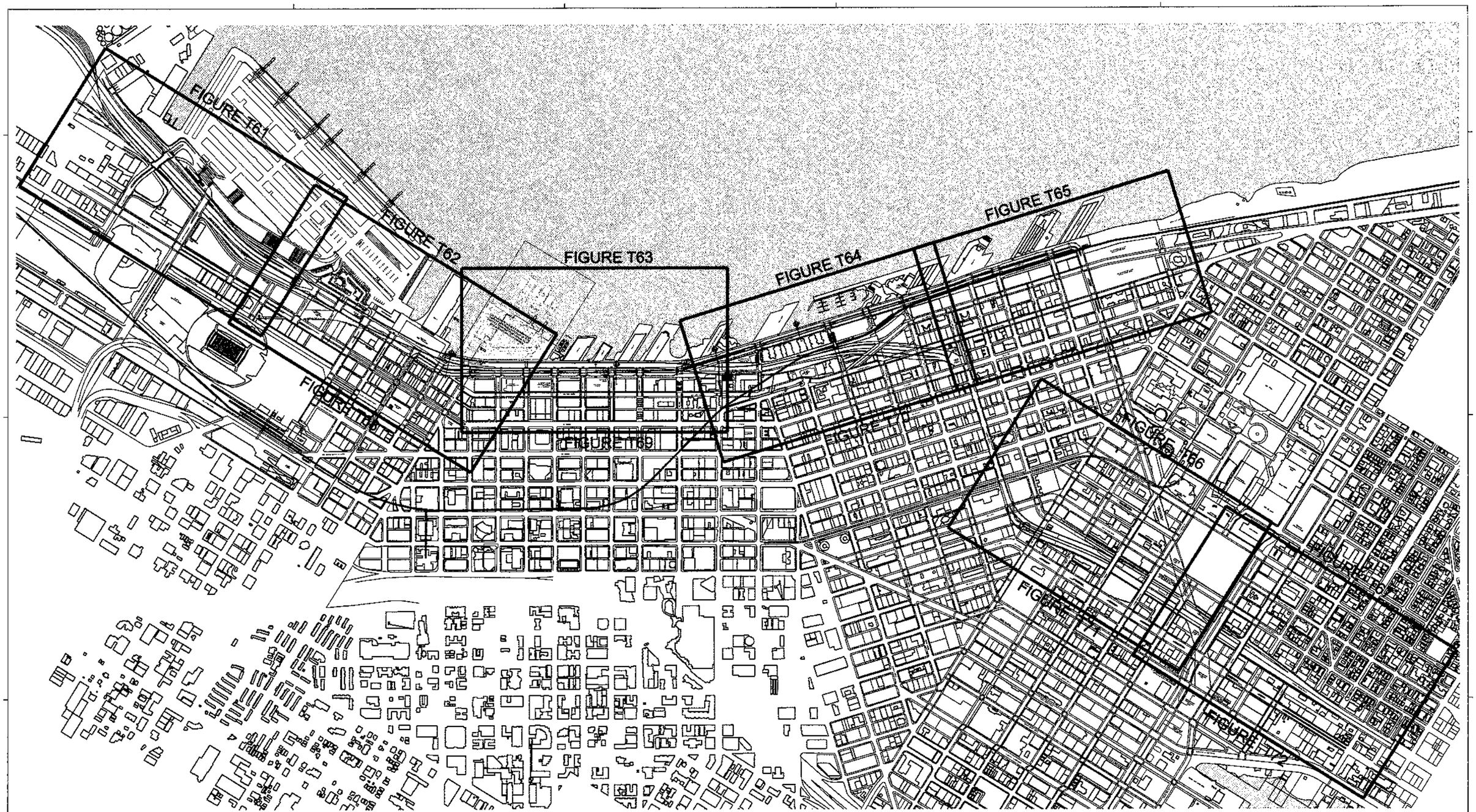


SECTION C FROM FIGURE T50
TYPE 'A' RELIEVING PLATFORM

NOTE:

1. THE EXACT LOCATION OF THE REPLACEMENT SEAWALL HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING SEAWALL OR IN THE SAME LOCATION AS THE EXISTING SEAWALL.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING SEAWALL TO FACILITATE CONSTRUCTION.

GRAPHIC SCALE
0 8 16
SCALE IN FEET



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 500 1000 ft

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

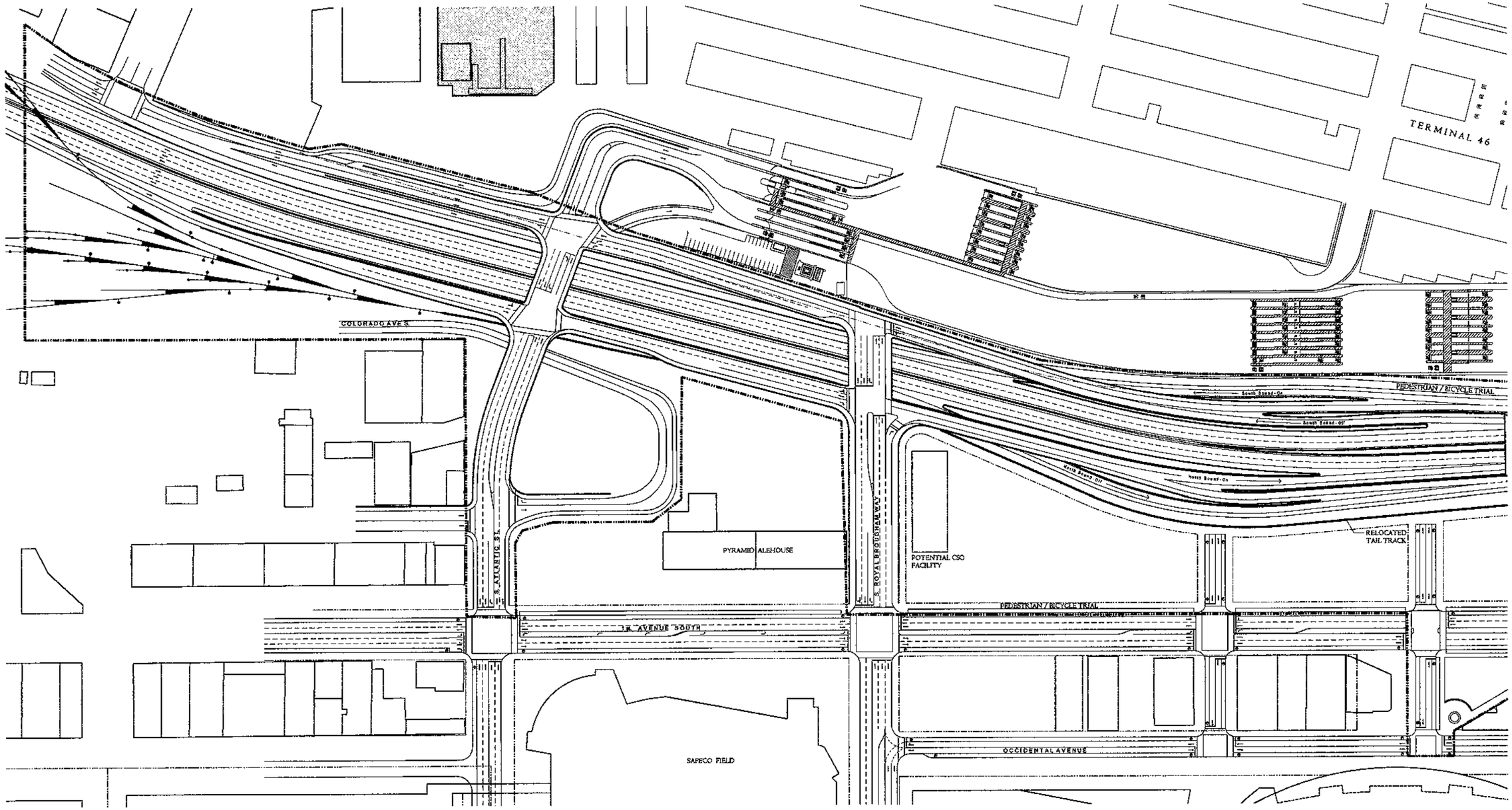
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE
KEY PLAN

FIGURE NO
T60

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

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Federal Highway Administration

Washington State Department of Transportation

City of Seattle

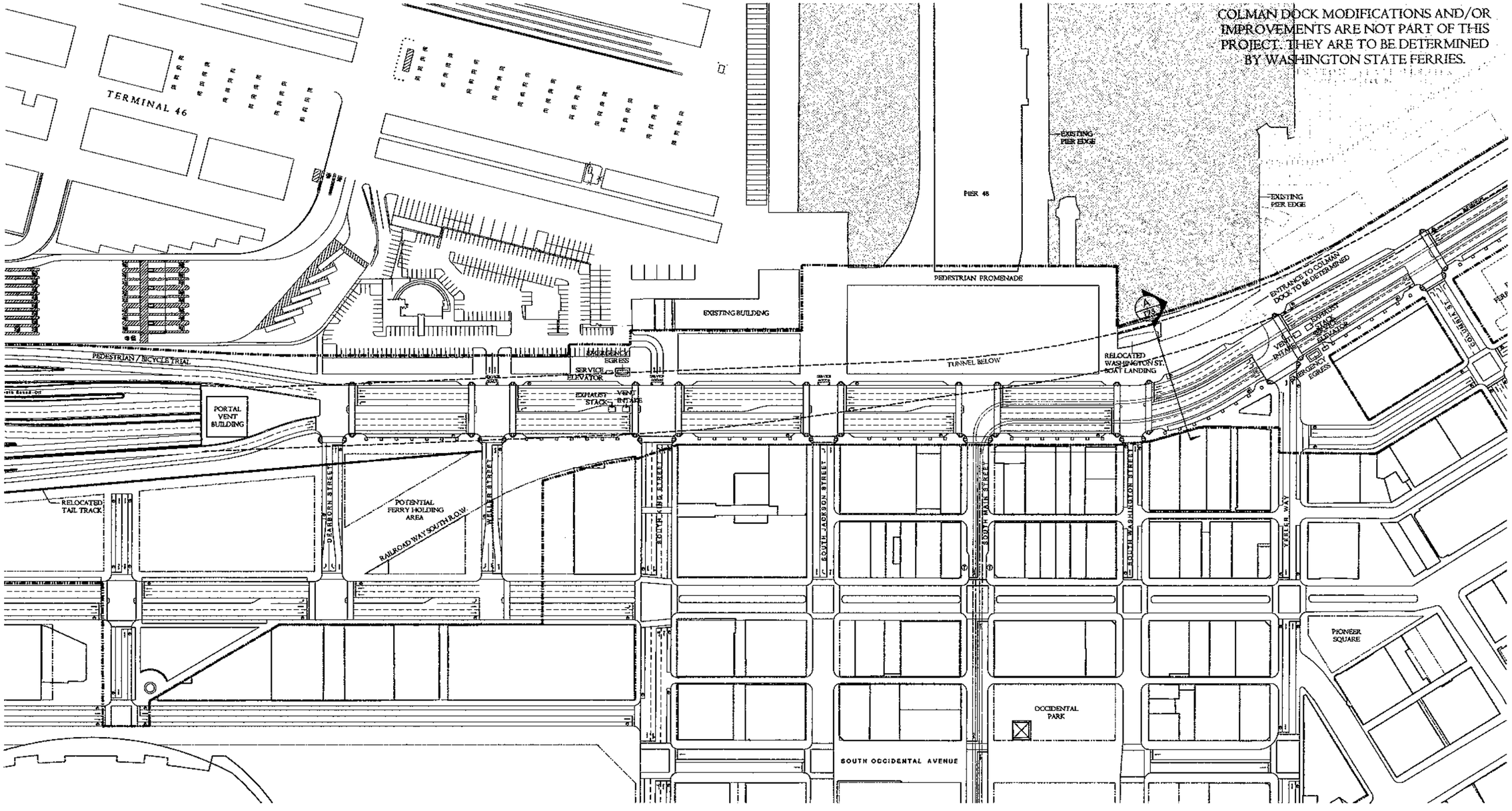
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - SOUTH
AT GRADE, SR 519 FULL ACCESS ELEVATED
S. MASSACHUSETTS TO S. DEARBORN

FIGURE NO
T61

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG

COLMAN DOCK MODIFICATIONS AND/OR IMPROVEMENTS ARE NOT PART OF THIS PROJECT. THEY ARE TO BE DETERMINED BY WASHINGTON STATE FERRIES.



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

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Federal Highway Administration

Washington State Department of Transportation

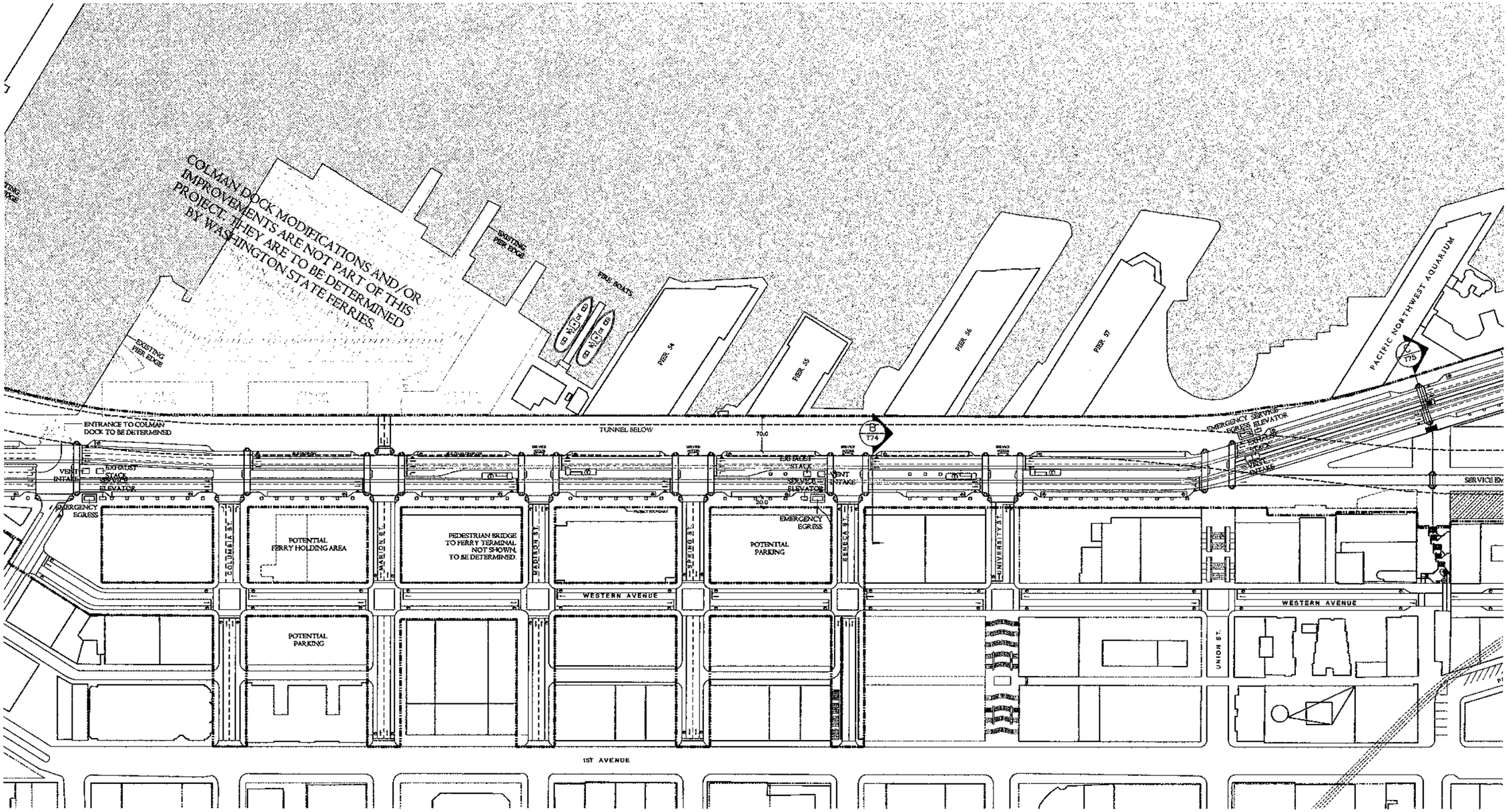
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
STACKED TUNNEL - S. DEARBORN TO S. WASHINGTON

FIGURE NO
T62

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

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Federal Highway Administration

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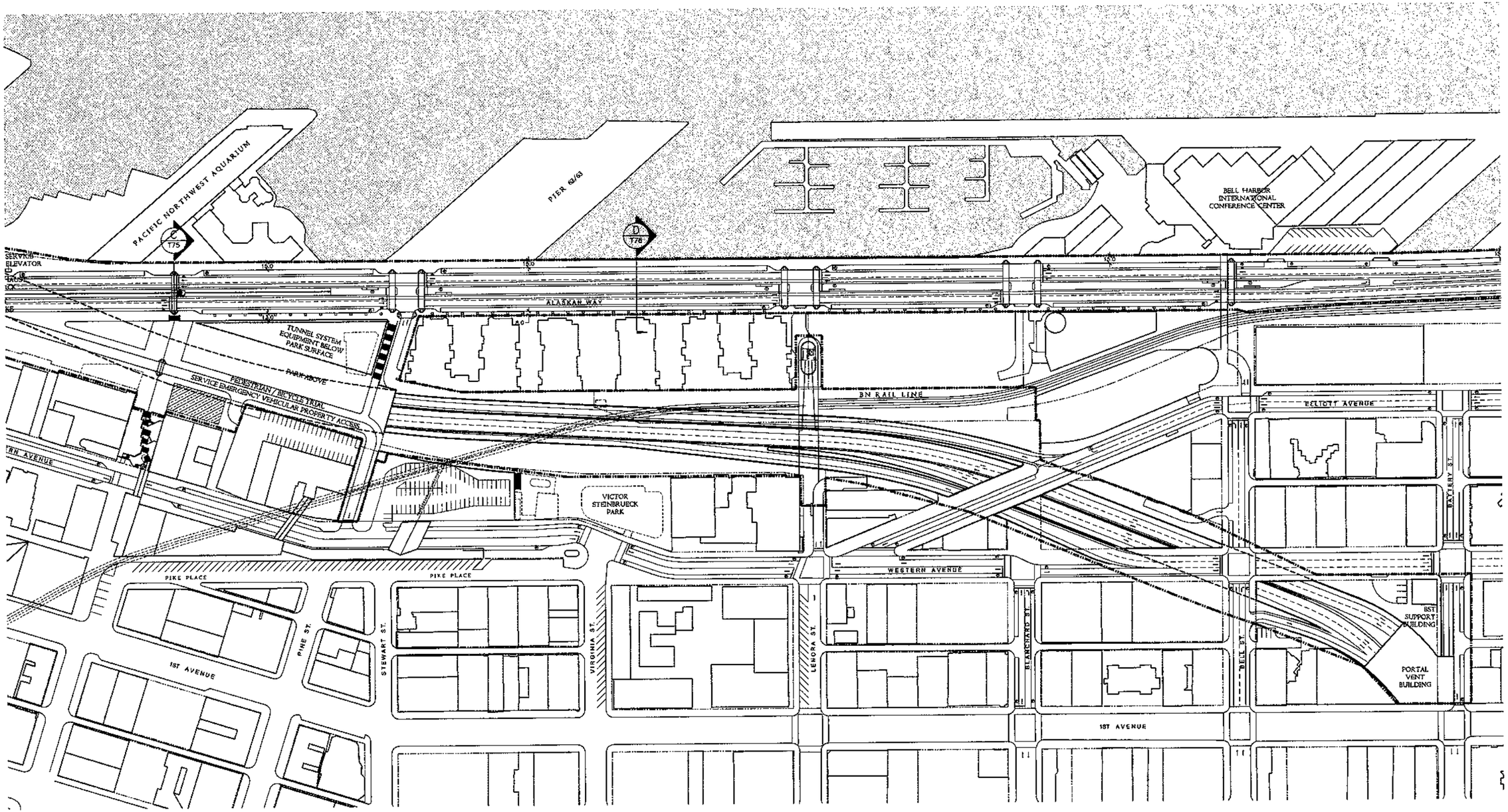
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
STACKED TUNNEL - S. WASHINGTON TO PIKE

FIGURE NO
T63

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

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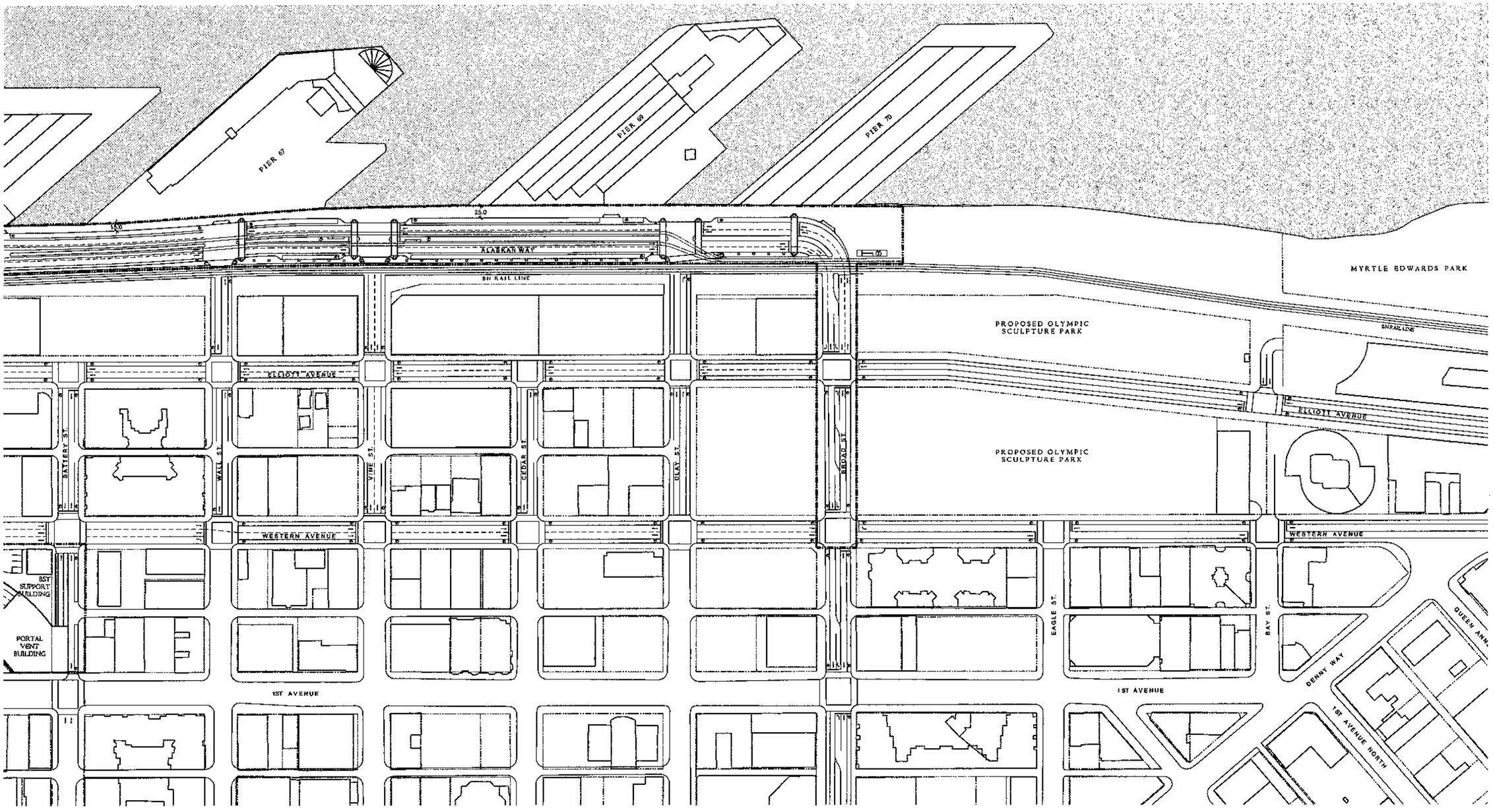
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
SR 99 UNDER ELLIOTT AND WESTERN
PIKE TO BATTERY STREET TUNNEL

FIGURE NO
T64

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

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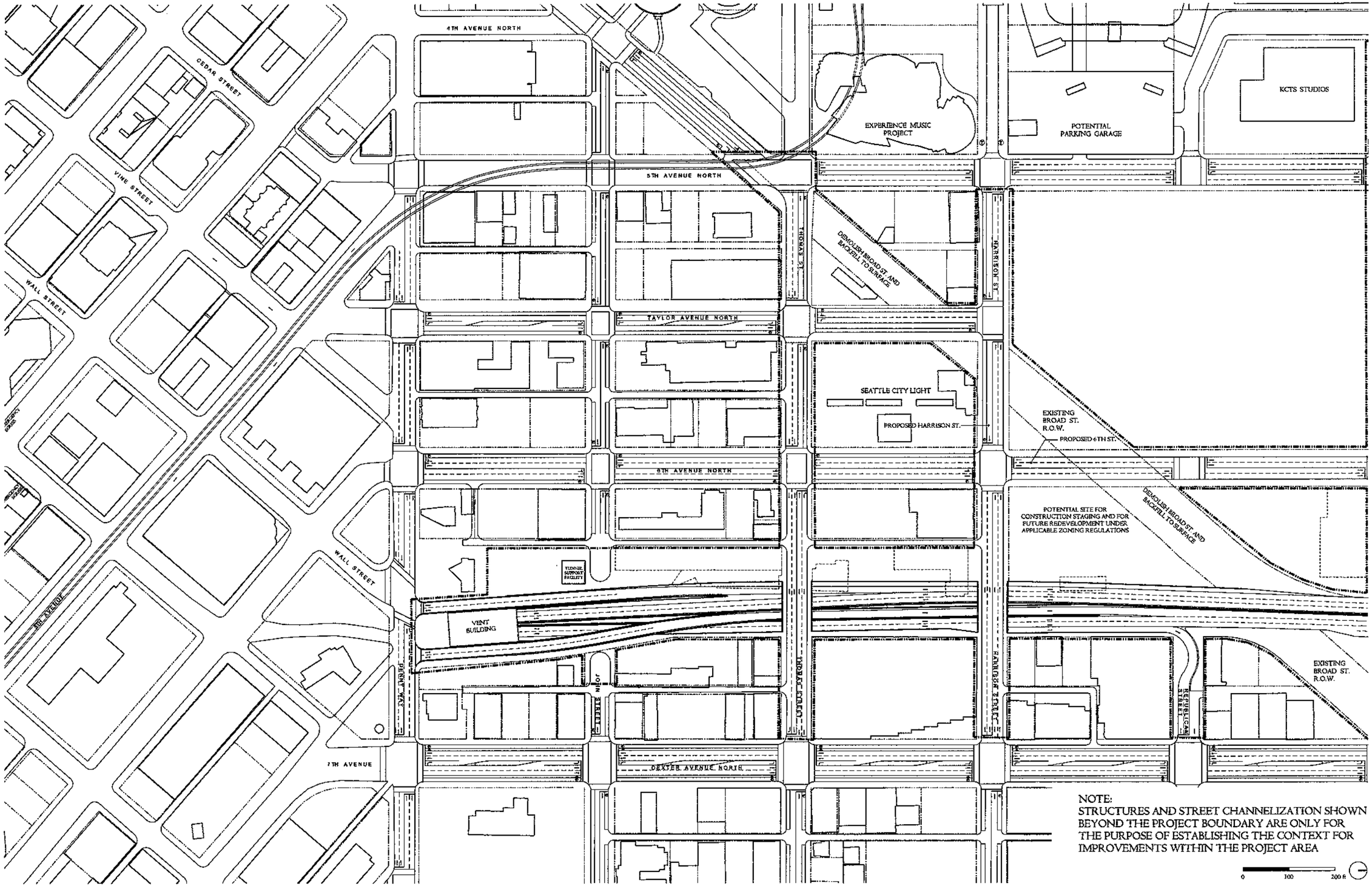
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH WATERFRONT
PIKE TO BROAD

FIGURE NO
T65

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



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Federal Highway Administration

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - DENNY WAY TO REPUBLICAN

FIGURE NO
T66

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG

KCTS STUDIOS

5th. AVENUE NORTH

TAYLOR AVENUE NORTH

6th. AVENUE NORTH

DEMOLISH BROAD ST. AND BACKFILL TO SURFACE

WARD ST.

PROSPECT ST.

HIGHLAND DR.

COMSTOCK ST.

AURORA AVENUE NORTH

EXISTING BROAD ST. R.O.W.

TERRY AVE.

BOREN AVE.

DENNY WAY

ALOHA ST.

DEXTER AVENUE NORTH

DEVELOPMENT OPPORTUNITY AREA

THE CONTINUATION OF A WIDENED TWO-WAY MERCER ST. EAST OF DEXTER IS NOT PART OF THIS PROJECT. IT IS ONE OF MANY OPTIONS BEING CONSIDERED BY THE CITY OF SEATTLE.

BROAD ST. DEMOLISHED AND BACKFILLED TO SURFACE AND CURBS OF ADJACENT STREETS RE-ESTABLISHED

NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA

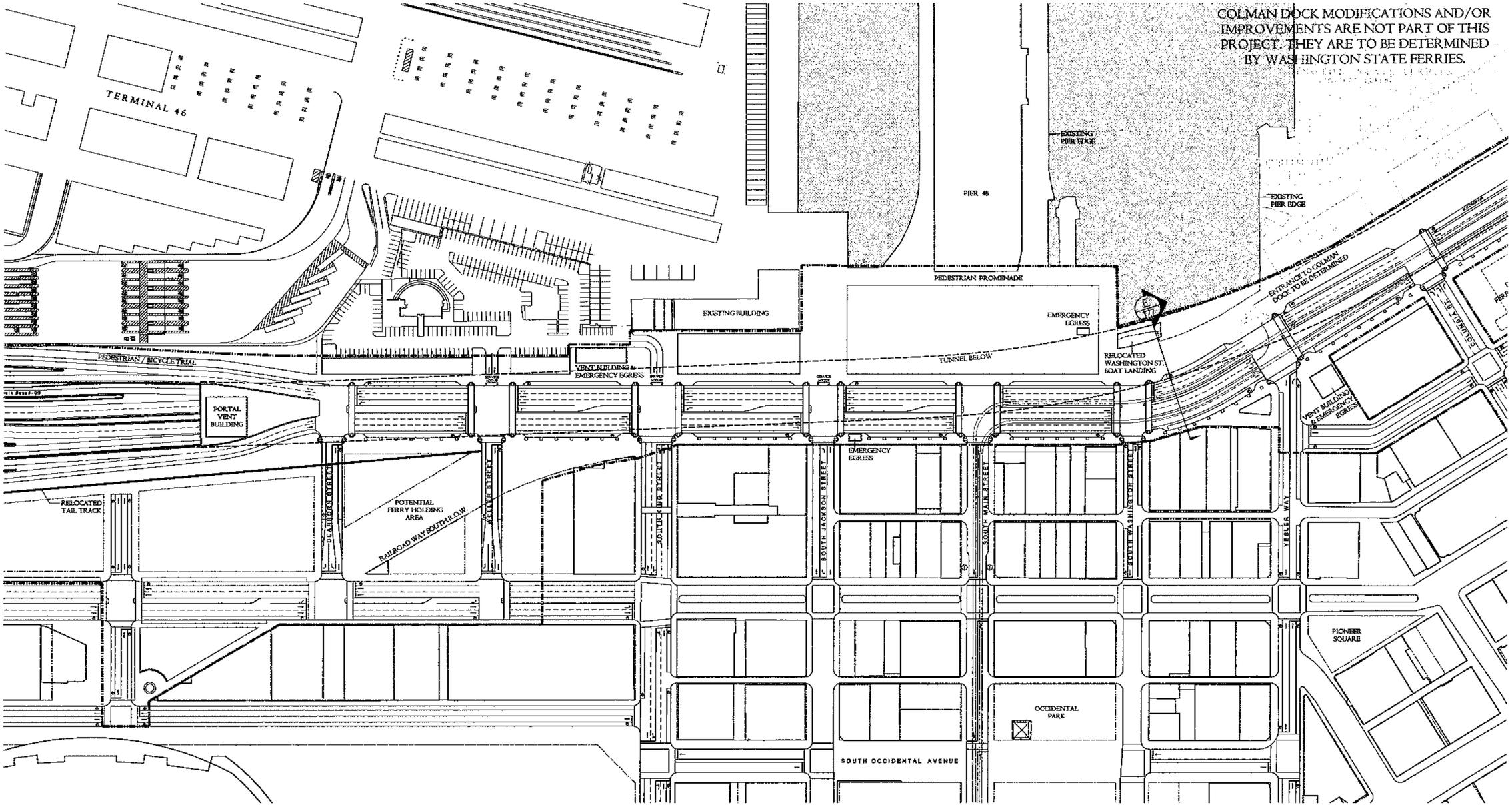
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - REPUBLICAN TO ALOHA

FIGURE NO
T67

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG

COLMAN DOCK MODIFICATIONS AND/OR IMPROVEMENTS ARE NOT PART OF THIS PROJECT. THEY ARE TO BE DETERMINED BY WASHINGTON STATE FERRIES.



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
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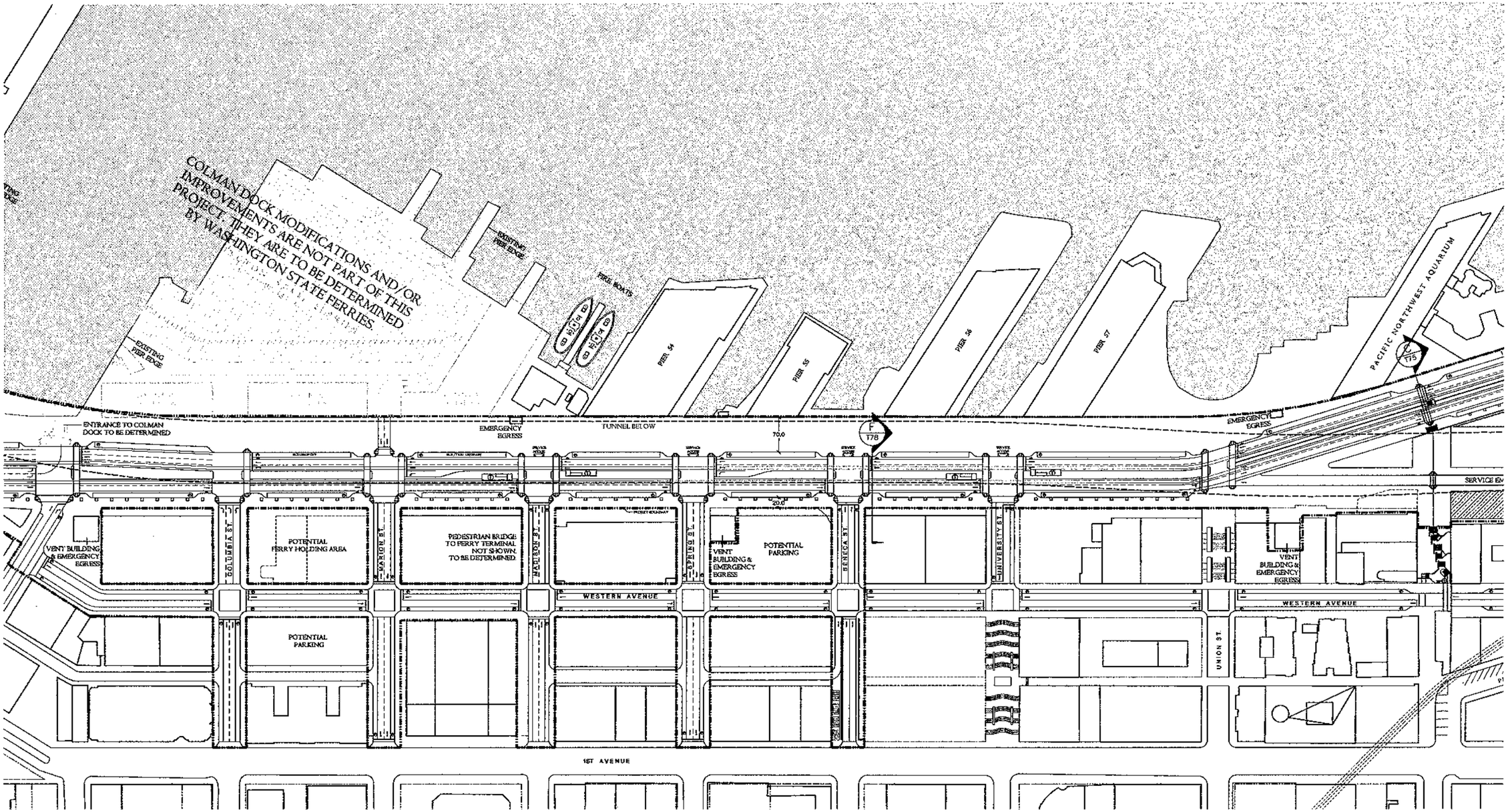
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SIDE-BY-SIDE TUNNEL - S. DEARBORN TO S. WASHINGTON

FIGURE NO
T68

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

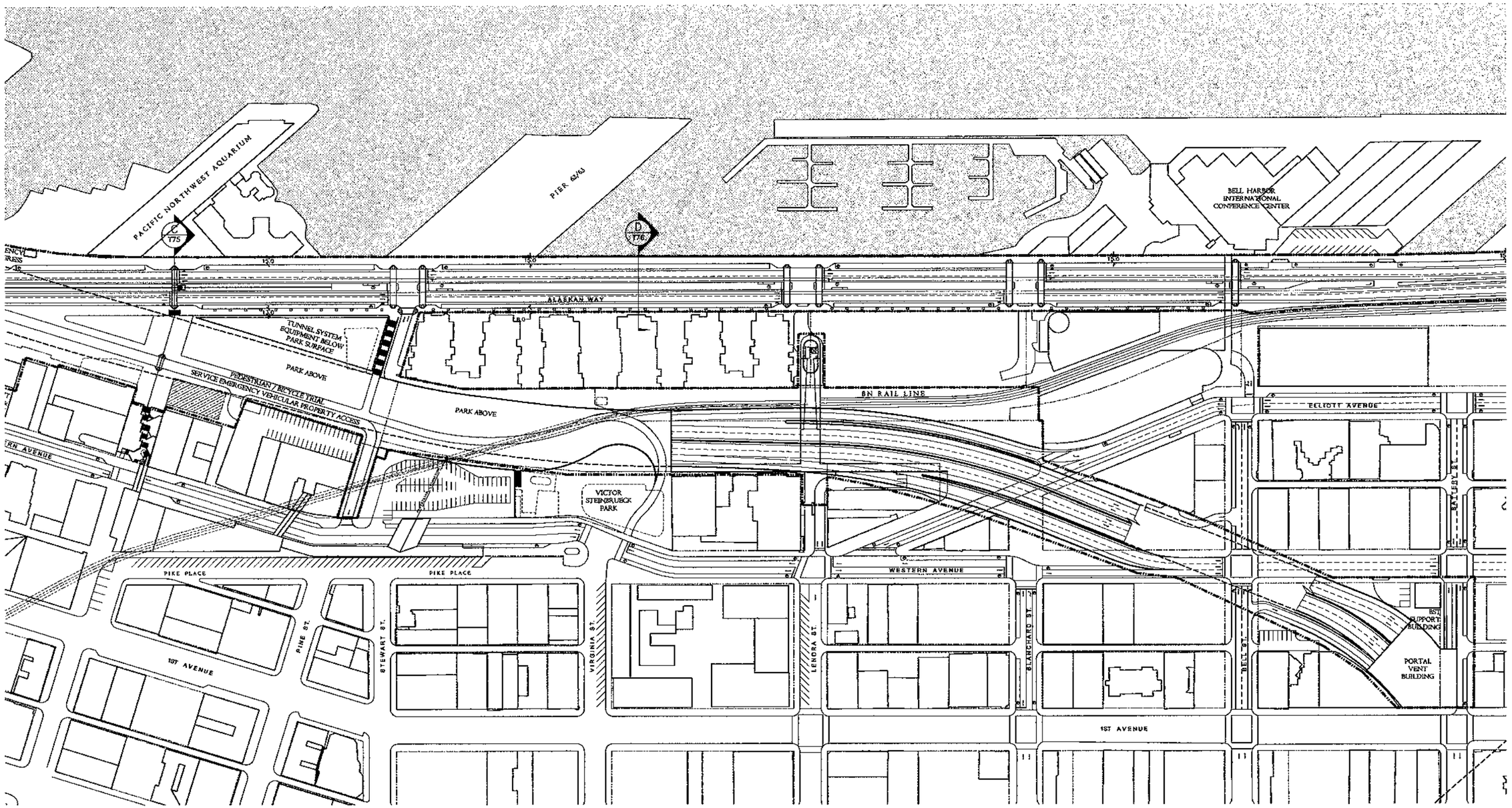
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SIDE-BY-SIDE TUNNEL - S. WASHINGTON TO PIKE

FIGURE NO 769

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

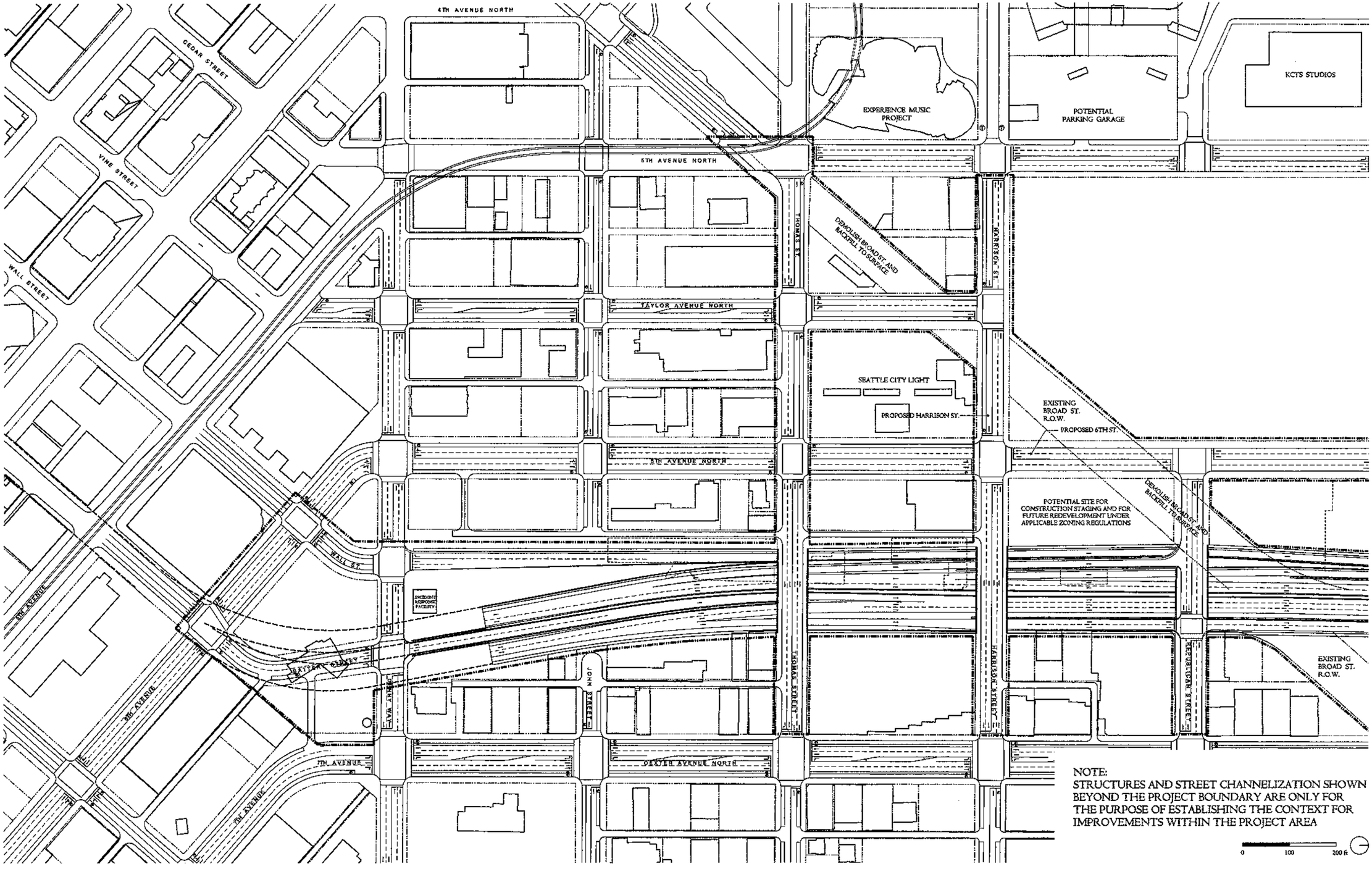
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SR 99 OVER ELLIOTT AND WESTERN
PIKE TO BATTERY STREET TUNNEL

FIGURE NO
T70

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG



PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

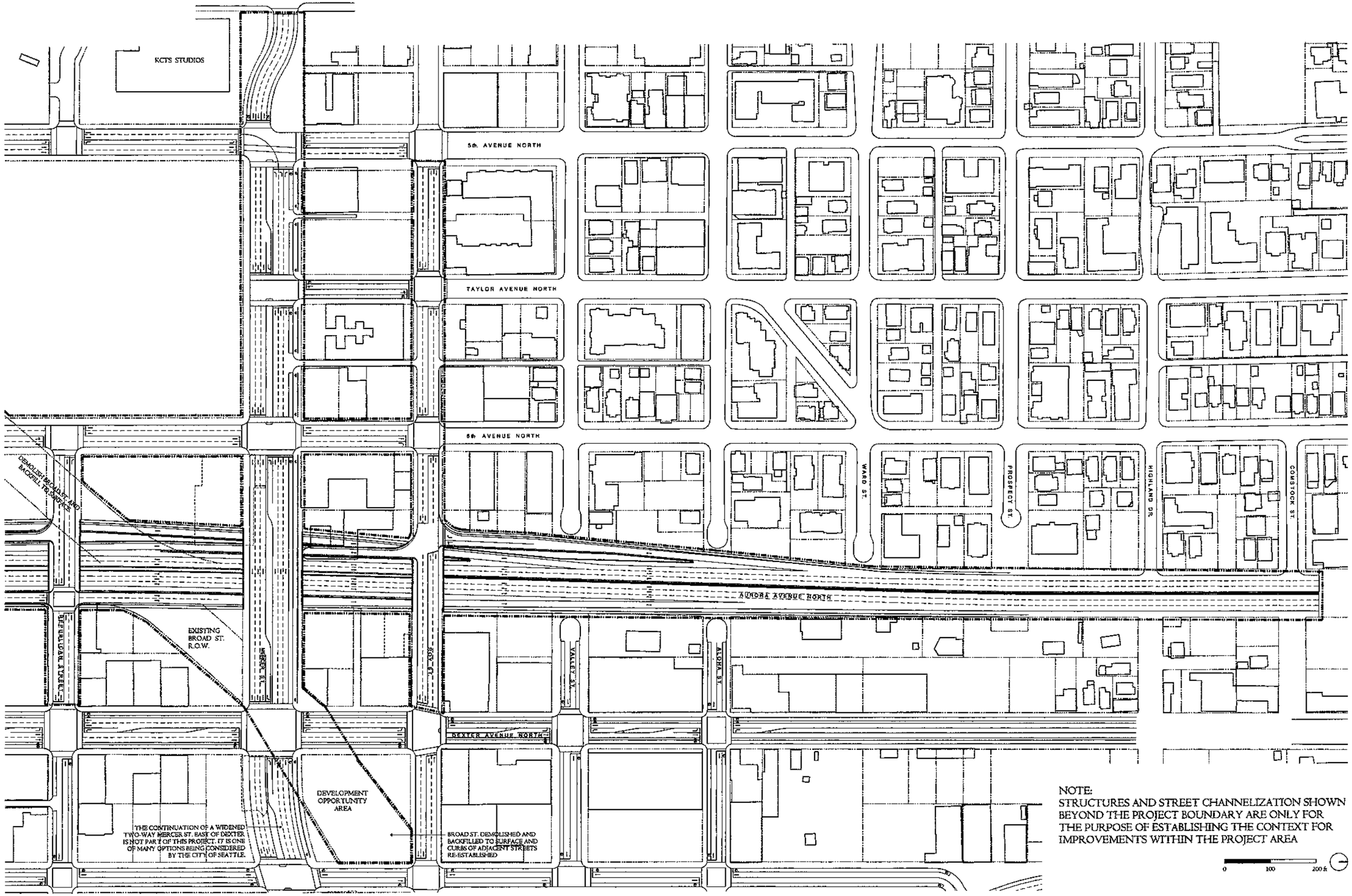
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
LOWERED AURORA - DENNY WAY TO REPUBLICAN

FIGURE NO
T71

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

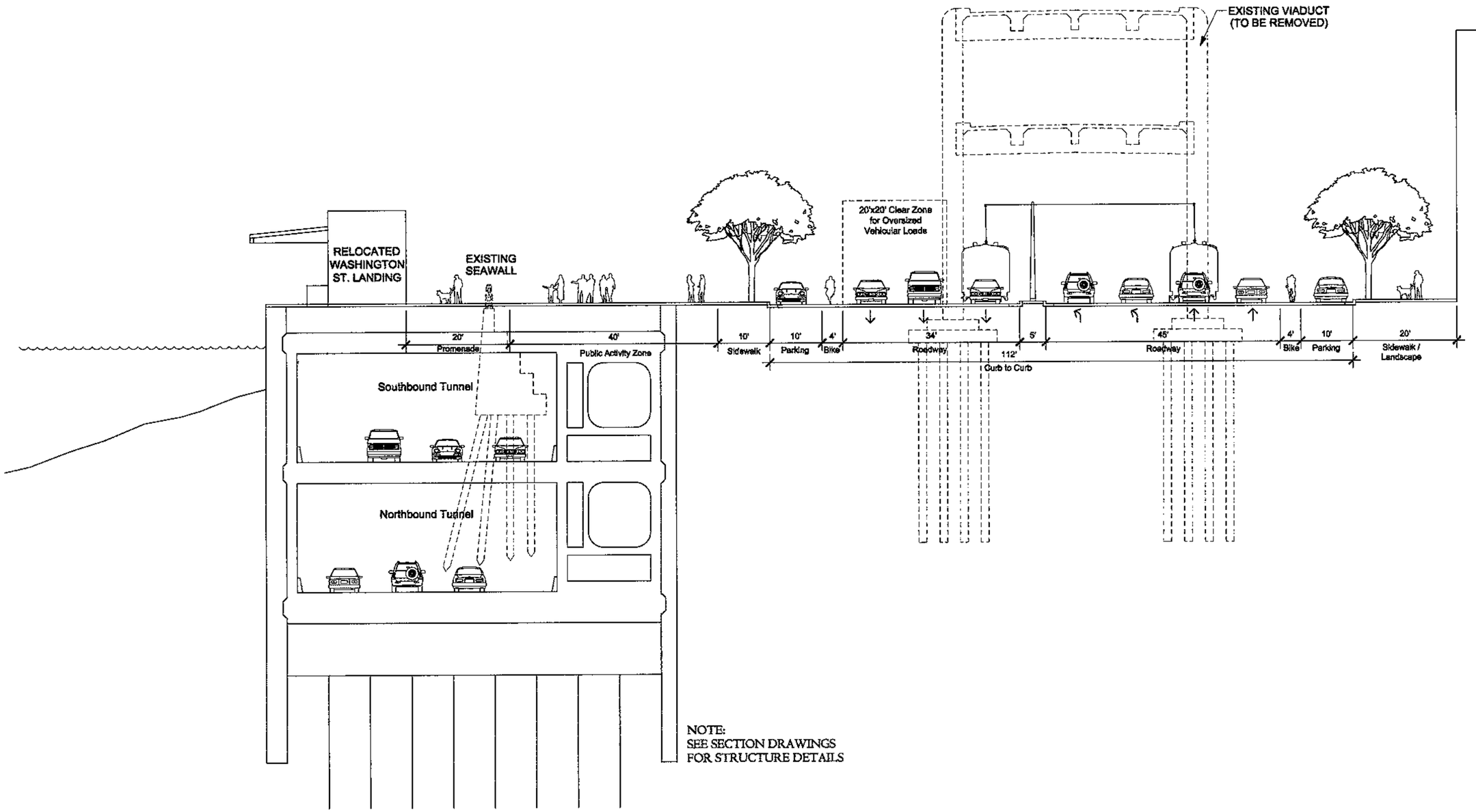
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH OPTION
LOWERED AURORA - REPUBLICAN TO COMSTOCK

FIGURE NO
T72

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\STACKED\PLAN.DWG



NOTE:
SEE SECTION DRAWINGS
FOR STRUCTURE DETAILS

A
T62

SECTION OF STACKED TUNNEL AT WASHINGTON ST.

0 5 10 20 ft

PLOTTING DATE : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

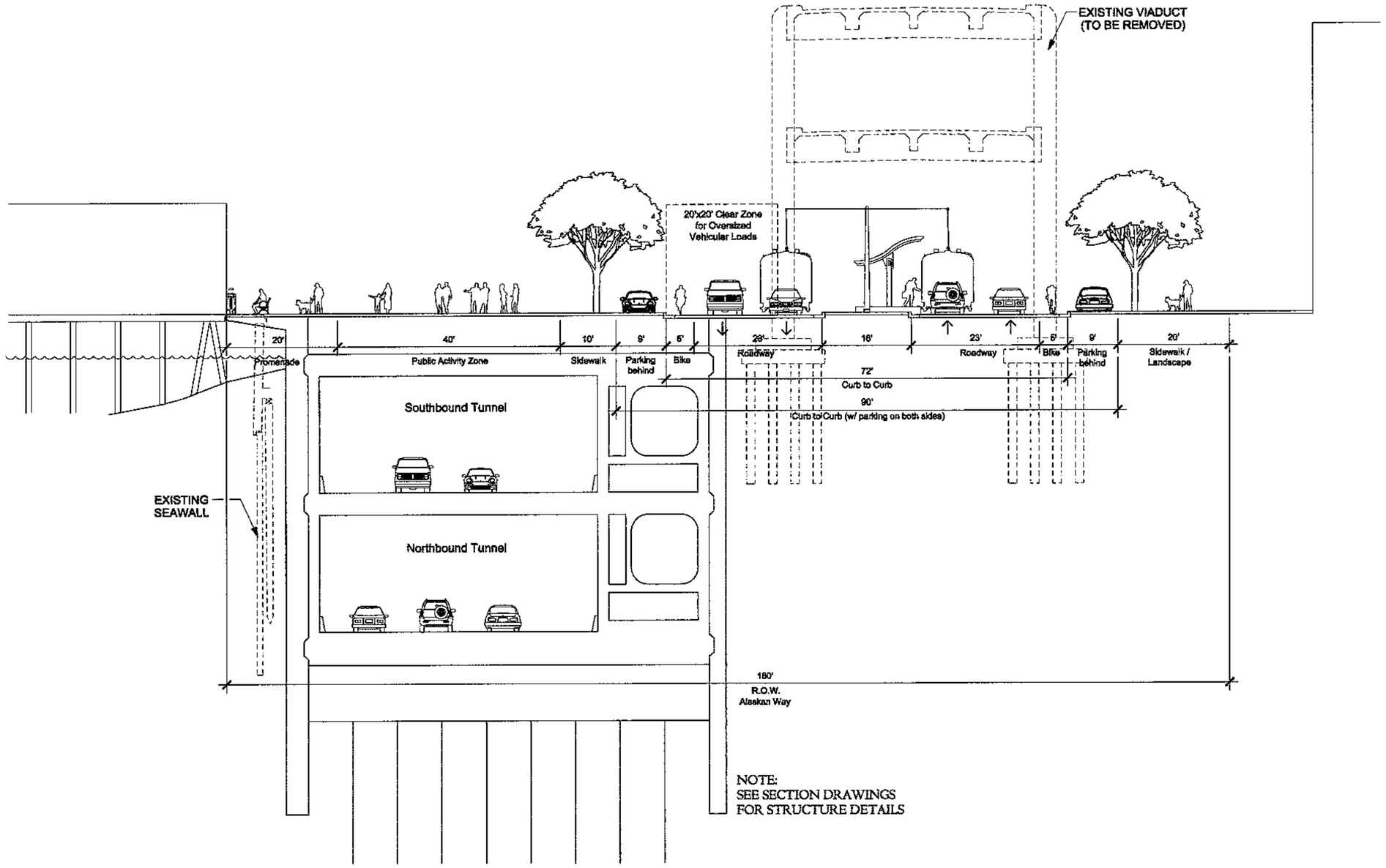
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
SECTION A

FIGURE NO
T73

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



NOTE:
SEE SECTION DRAWINGS
FOR STRUCTURE DETAILS

B / T63 SECTION OF STACKED TUNNEL AT SENECA ST.

0 5 10 20 ft

PLOTTING DATE: : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

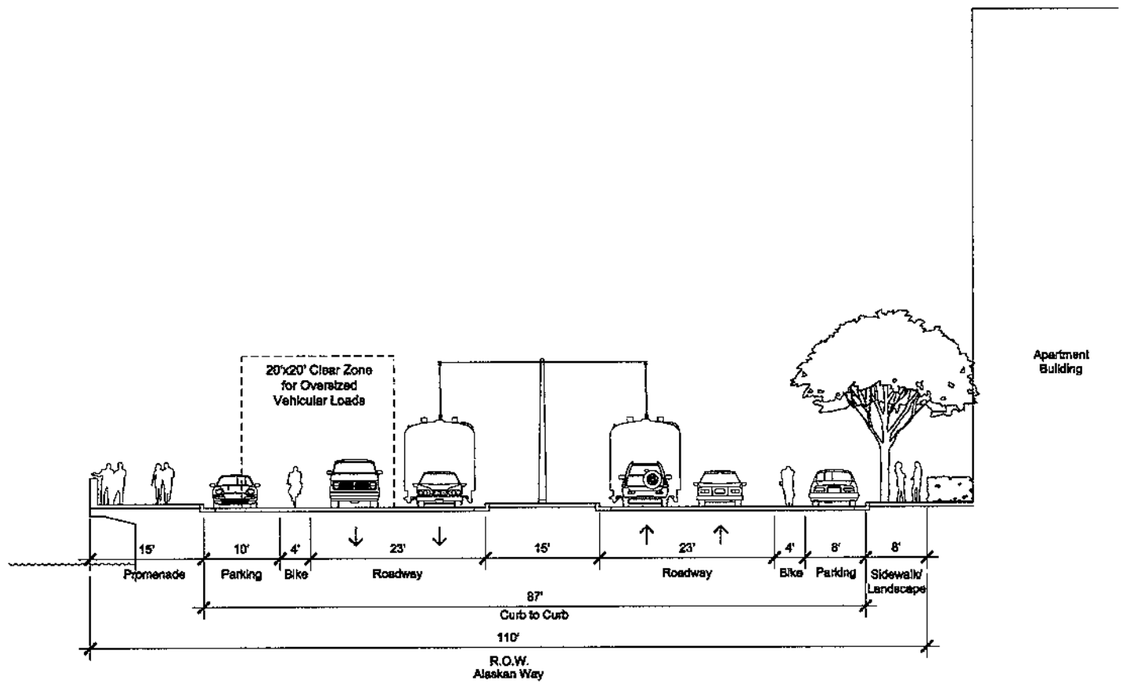
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
SECTION B

FIGURE NO
T74

FILENAME: ROMA DESIGN GROUP\C4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



D SECTION AT PIER 62/63

T64,70

0 5 10 20 ft

PLOTTING DATE : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

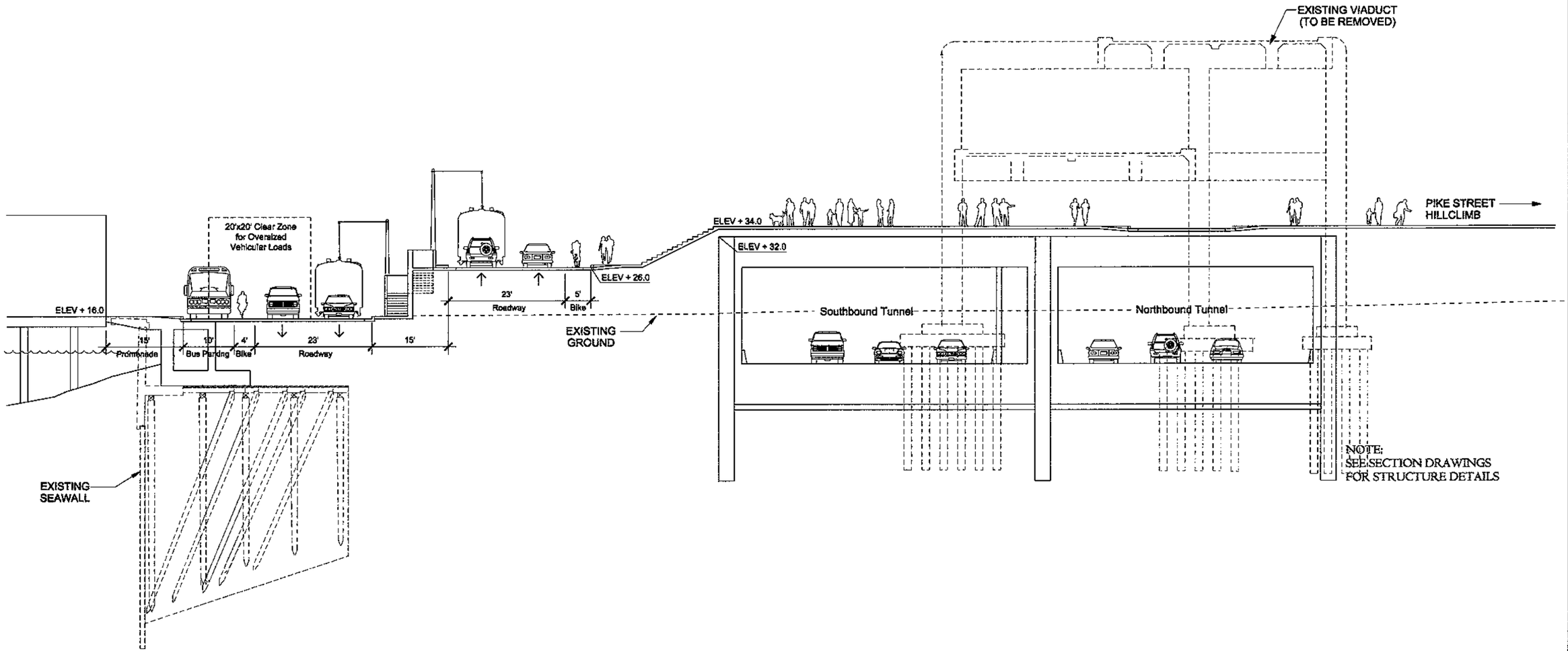
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - NORTH WATERFRONT
SECTION D

FIGURE NO
T76

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



C SECTION OF TUNNEL AT PIKE ST.

T63,64,69,70

0 5 10 20 ft

PLOTTING DATE : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

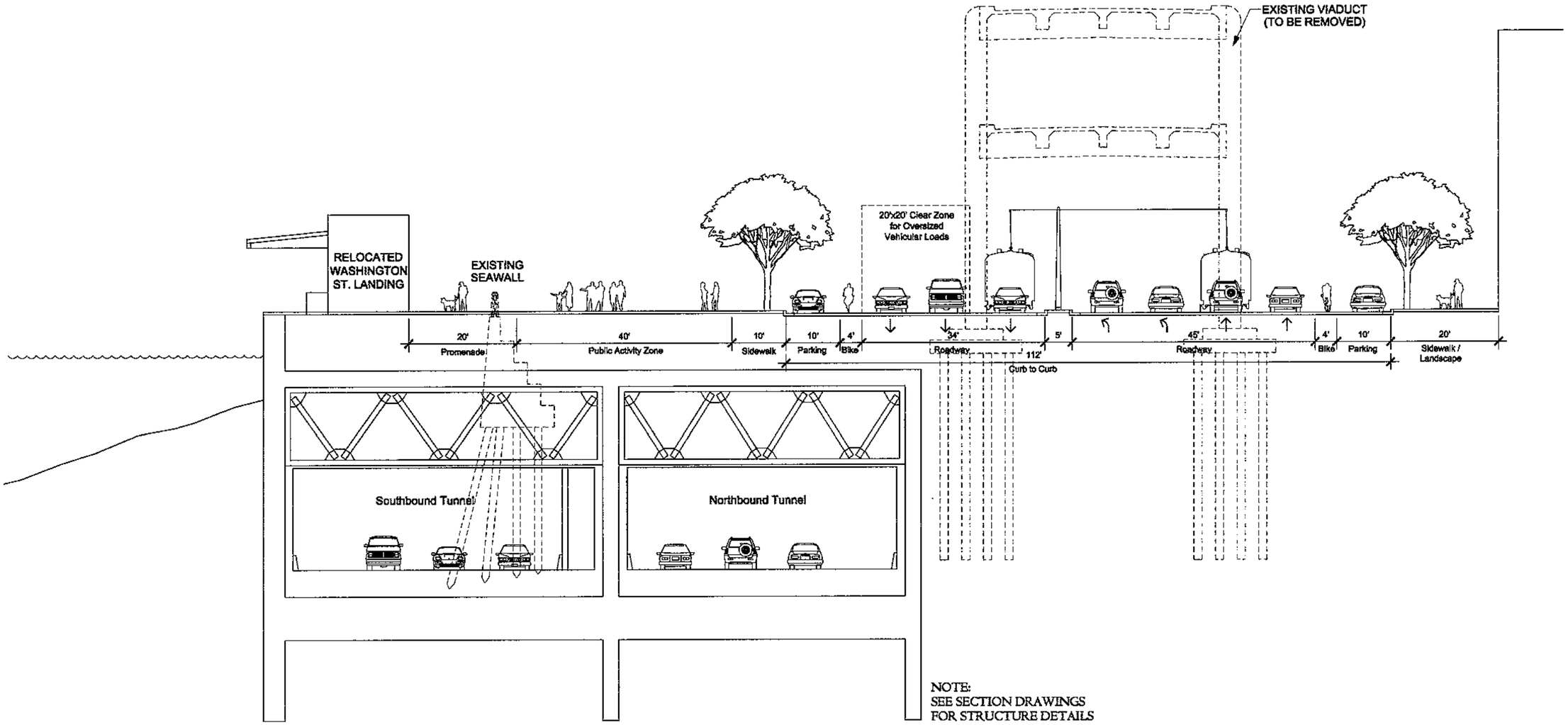
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL
SECTION C

FIGURE NO
T75

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



NOTE:
SEE SECTION DRAWINGS
FOR STRUCTURE DETAILS

E / T68 SECTION OF SIDE BY SIDE TUNNEL AT S. WASHINGTON

0 5 10 20 ft

PLOTTING DATE : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

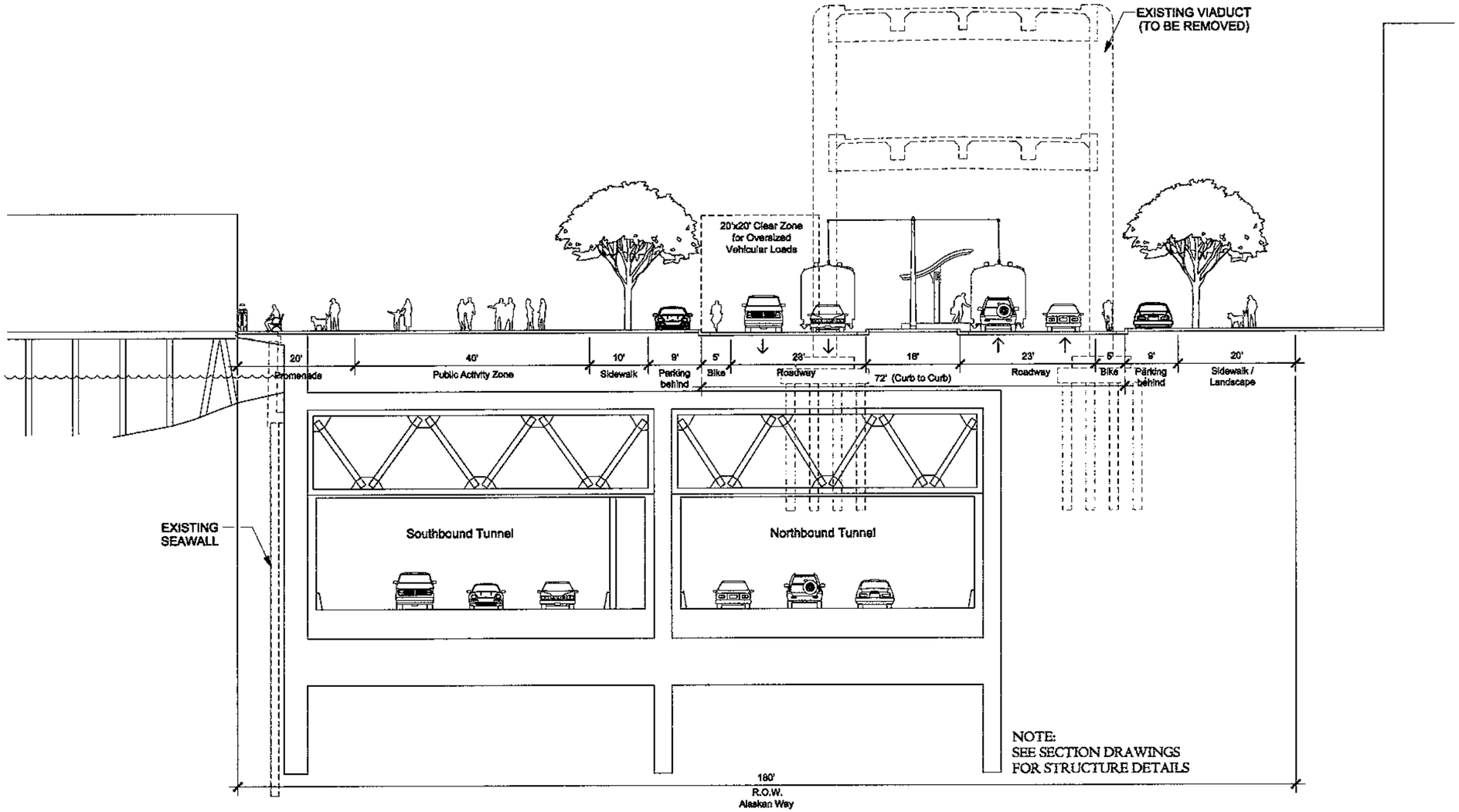
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SECTION E

FIGURE NO
T77

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



F
T69 SECTION OF SIDE BY SIDE TUNNEL AT SENECA ST.

0 5 10 20 ft

PLOTTING DATE : 033006

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

City of Seattle

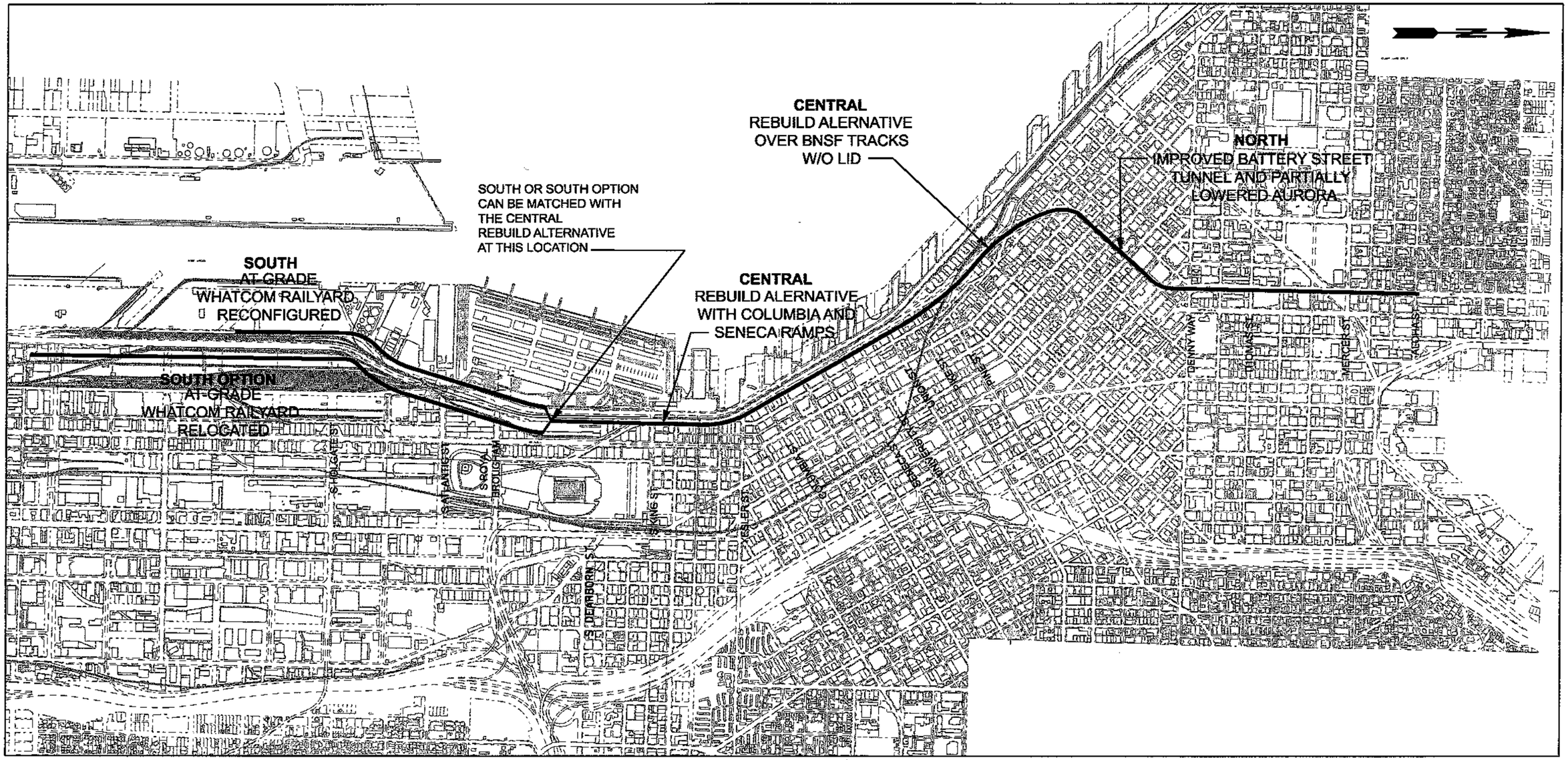
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

TUNNEL ALTERNATIVE - CENTRAL OPTION
SIDE-BY-SIDE TUNNEL - SECTION F

FIGURE NO
T78

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT



SCHEMATIC OF REBUILD ALTERNATIVE / OPTIONS

NOT TO SCALE

U.S. Department of Transportation
Federal Highway Administration

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

SCHEMATIC OF REBUILD ALTERNATIVE / OPTIONS

FIGURE NO
R0

1/13/2006 10:58:42 AM

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT

Vicinity Map and Key Plan

NOT TO SCALE

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Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE
VICINITY MAP AND KEY PLAN

FIGURE NO
R00

South
S. Spokane To S.Dearborn

N

3 LANES EACH WAY
EXISTING AT-GRADE

E. MARGINAL WAY

SR 99

S. SPOKANE ST. VIADUCT

S. HANFORD ST.

0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

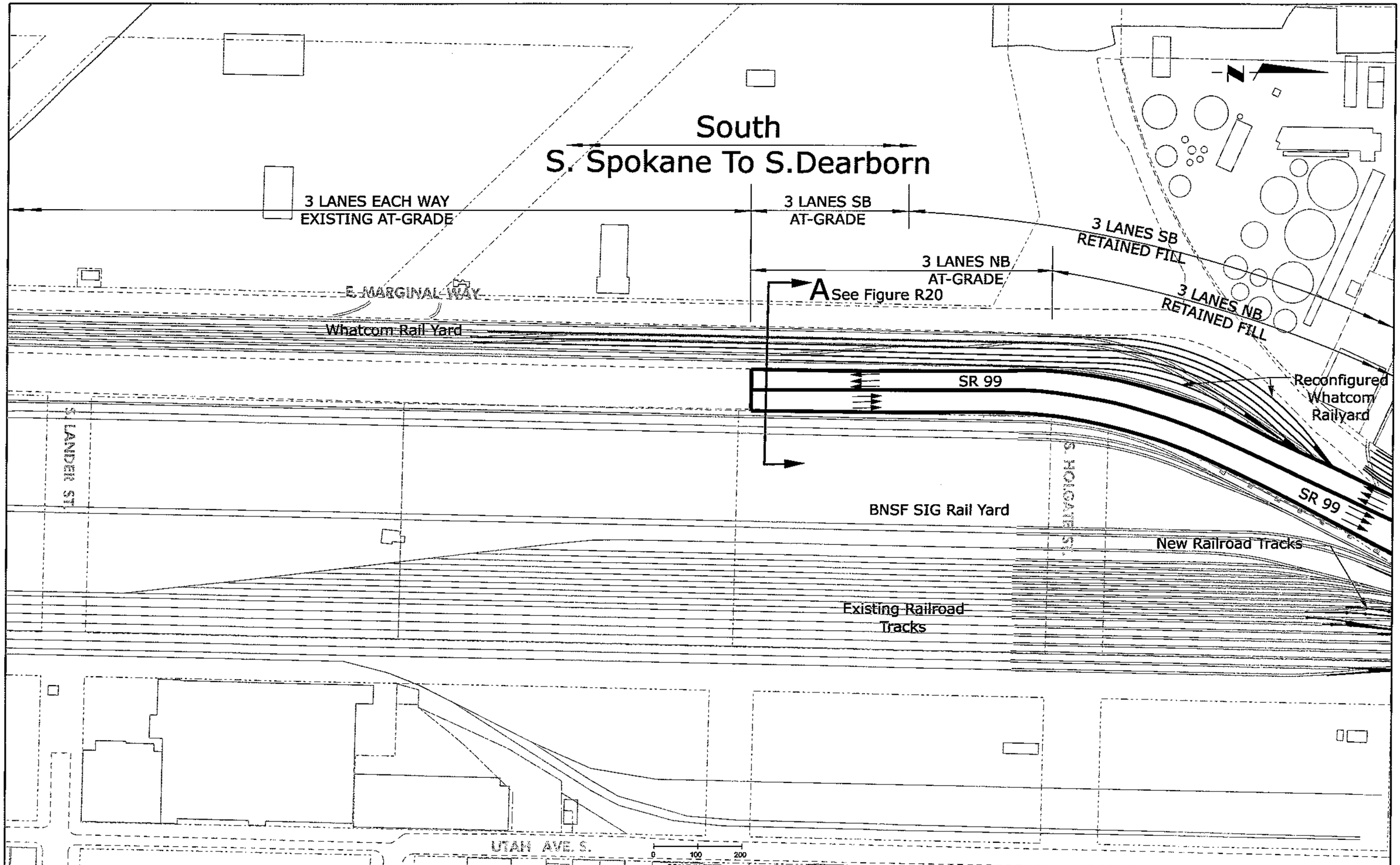
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. SPOKANE TO S. LANDER

FIGURE NO
R01

1/13/2006 11:00:06 AM



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Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
AT-GRADE, WHATCOM RAILYARD RECONFIGURED - S. LANDER TO S. HOLGATE

FIGURE NO
R02

South
S. Spokane To S. Dearborn

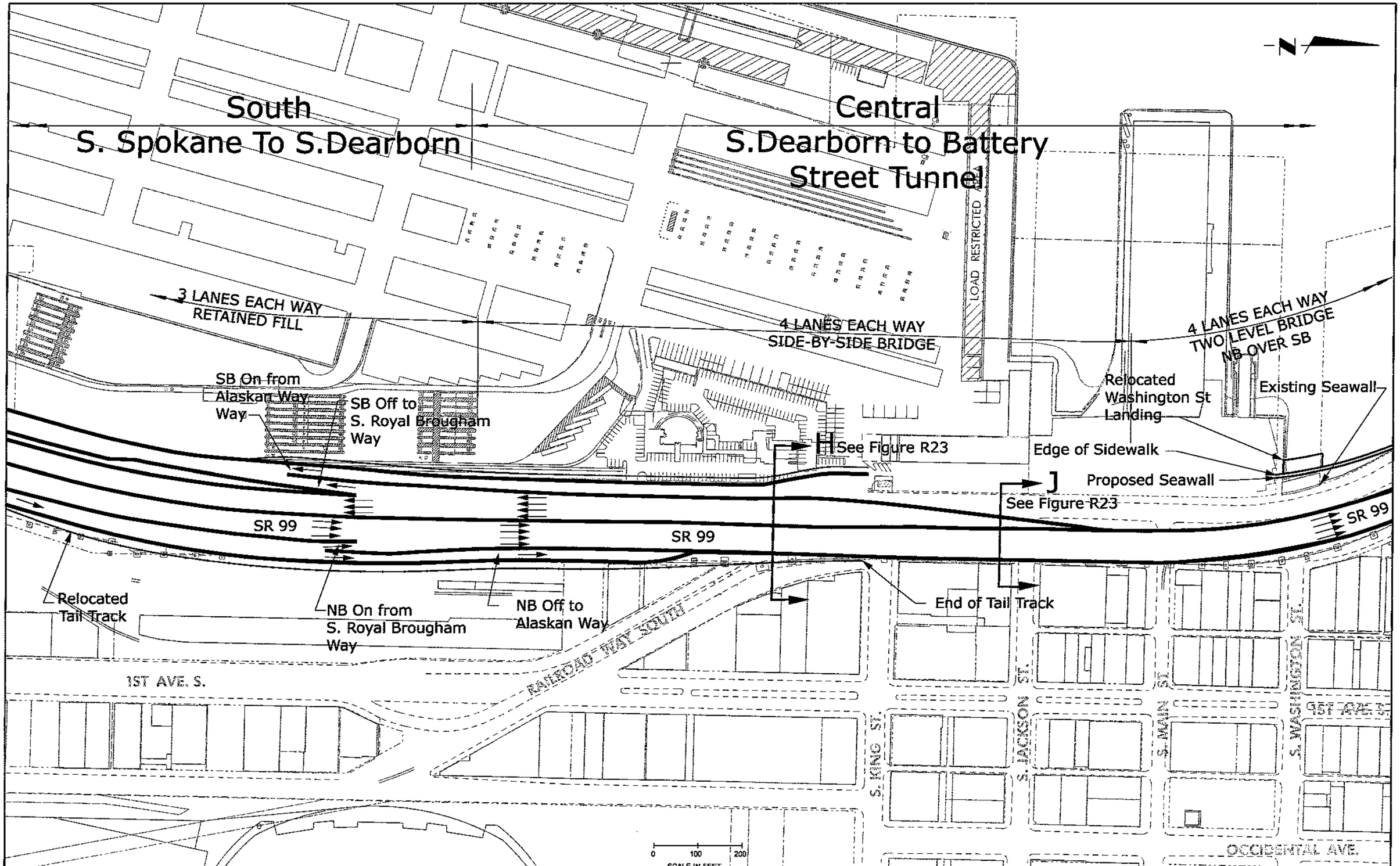
3 LANES SB BRIDGE
3 LANES SB RETAINED FILL
3 LANES NB RETAINED FILL
3 LANES NB BRIDGE
T-46 Entrance
T-46 Exit
B See Figure R20
E Marginal Way
C See Figure R21
3 LANES SB RETAINED CUT
3 LANES NB AT GRADE
F See Figure R22
SB Frontage Road
3 LANES EACH WAY AT-GRADE
3 LANES EACH WAY RETAINED FILL
3 LANES EACH WAY SIDE-BY-SIDE BRIDGE
G See Figure R22
SB Off to S. Royal Brougham Way
SB On from Alaskan Way
SR 99
SR 99
NB Off to Alaskan Way
NB On from S Royal Brougham Way
Relocated Tail Track
Revised SIG Yard Tracks
Relocated Tail Track
D See Figure R21
NB Frontage Road
NB Ramp to S. Atlantic
Proposed Colorado Ave S
E See Figure R21
Existing Railroad Tracks
COLORADO AVE S
1ST AVE. S.
S MASSACHUSETTS ST.
UTAH AVE. S.
1ST AVE. S.
S ATLANTIC ST.
S ROYAL BROUGHAM WAY
0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration
Washington State Department of Transportation
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
AT GRADE, SR 519 FULL ACCESS ELEVATED - S. MASSACHUSETTS TO S. DEARBORN

FIGURE NO
R03



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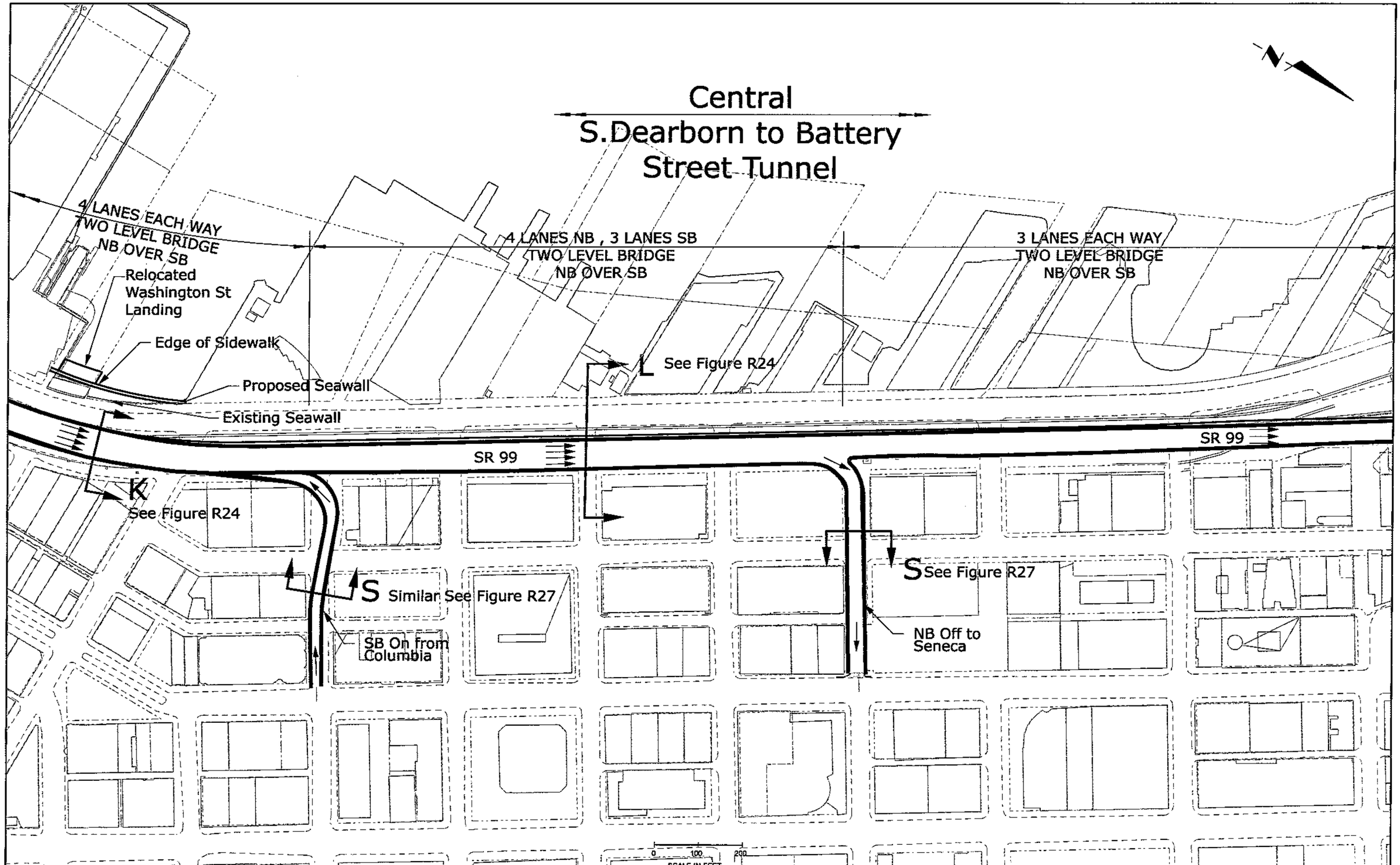
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
S. DEARBORN TO S. WASHINGTON

FIGURE NO
R04



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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
S. WASHINGTON TO PIKE

FIGURE NO
R05

North Waterfront
Pike to Broad

3 LANES EACH WAY
TWO LEVEL BRIDGE
NB OVER SB

3 LANES EACH WAY
SIDE-BY-SIDE BRIDGE

2 LANES EACH WAY
SIDE-BY-SIDE BRIDGE

ALASKAN WAY

ELLIOTT AVE.

BELL ST.

Battery
Street
Tunnel

P See Figure R26

Q See Figure R26

SB on
from
Elliott

Emergency
Access

WESTERN AVE.

N See Figure R25

M See Figure R25

NB Off to
Western

BLANCHARD ST.

BELL ST.

Battery
Street
West
Tunnel
Portal

Emergency
Access

Victor Steinbrueck
Park

Existing
BNSF
Railroad
Tunnel

LENORA ST.

VIRGINIA ST.

STEWART ST.

1ST AVE.

2ND AVE.

1ST AVE.

2ND AVE.

Central
S.Dearborn to Battery
Street Tunnel

0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
PIKE TO BATTERY STREET TUNNEL

FIGURE NO.
R06

7/13/2006 11:04:49 AM

North Battery Street Tunnel

2 LANES EACH WAY
BATTERY STREET TUNNEL
PORTAL EXTENSION

2 LANES EACH WAY
RETAINED CUT

2 LANES EACH WAY
EXISTING BATTERY STREET TUNNEL

Existing Battery Street
Tunnel North Portal

Emergency
Access

T See Figure R28

U See Figure R29

Existing Battery
Street Tunnel

Battery
Street
South
Tunnel
Portal

2 LANES EACH WAY
ELLIOTT (RETAINED CUT)

Emergency
Access

SB on
from
Elliott

R See Figure R27

NB Off
to
Western

CEDAR ST.
VINE ST.
WALL ST.
BATTERY ST.
BELL ST.
BLANCHARD ST.
WESTERN AVE.
1ST AVE.
2ND AVE.
3RD AVE.
4TH AVE.
5TH AVE.
6TH AVE.
7TH AVE.
8TH AVE.
DENNY WAY
DEXTER
SR 99

0 100 200
SCALE IN FEET

U.S. Department of Transportation
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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
BATTERY STREET TUNNEL

FIGURE NO
R07

North

4TH AVE. N.

5TH AVE. N.

TAYLOR AVE. N.

6TH AVE. N.

CEDAR ST.

VINE ST.

BROAD ST.

HARRISON ST.

THOMAS ST.

JOHN ST.

DENNY WAY

3RD AVE.

WALL ST.

4TH AVE.

5TH AVE.

6TH AVE.

BATTERY ST.

EXISTING BATTERY STREET TUNNEL

2 LANES EACH WAY

V See Figure R30

X See Figure R31

Thomas St. Bridge

Harrison St. Bridge

SB Off To Denny Way

SR 99

W See Figure R30

Y See Figure R31

NB On From Denny Way

NB Off To Republican

DEXTER AVE. N.

Existing Battery Street Tunnel North Portal

2 LANES NB RETAINED CUT

2 LANES EACH WAY BATTERY STREET TUNNEL PORTAL EXTENSION

2 LANES SB RETAINED CUT

3 LANES NB RETAINED CUT

2 LANES NB RETAINED CUT

2 LANES NB RETAINED FILL

3 LANES SB RETAINED CUT

0 100 200

SCALE IN FEET

U.S. Department of Transportation
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ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - BATTERY STREET TUNNEL TO REPUBLICAN

FIGURE NO
R08

7/13/2006 11:08:37 AM

North

TAYLOR AVE. N.

ALOHA ST.

6TH AVE. N.

WARD ST.

PROSPECT ST.

HIGHLAND DR.

COMSTOCK ST.

LEE ST.

CALEB ST.

VALLEY ST.

ROY ST.

Z See Figure R32

SB Off and on at Roy

SR99

AA See Figure R32

NB Off and On at Roy

3 LANES NB RETAINED FILL

DEXTER AVE. N.

3 LANES NB AT GRADE

4 LANES NB AT - GRADE

Match Existing End project

4 LANES NB BRIDGE

BROAD ST.

3 LANES NB AT - GRADE

2 LANES NB RETAINED FILL

3 LANES SB RETAINED FILL

3 LANES SB AT GRADE

4 LANES SB AT - GRADE

3 LANES SB AT-GRADE

3 LANES SB BRIDGE

MERCER ST.

3 LANES SB RETAINED FILL

0 100 200

SCALE IN FEET

U.S. Department of Transportation
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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - REPUBLICAN TO ALOHA

FIGURE NO
R09

7/13/2006 11:07:21 AM

South
S. Spokane To S. Dearborn

N

3 LANES EACH WAY
EXISTING BRIDGE

3 LANES EACH WAY
RETAINED FILL

3 LANES EACH WAY
AT-GRADE

Match Existing
Begin Project

E. MARGINAL WAY

SR 99

A
See Figure R33

S. SPOKANE ST. VIADUCT

S. HINDS ST.

S. HORTON ST.

S. HANFORD ST.

Whatcom Railyard
Connection

Proposed Relocated
Whatcom Railyard

0 100 200
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH OPTION
AT-GRADE, WHATCOM RAILYARD RELOCATED - S. SPOKANE TO S. LANDER

FIGURE NO
R10

1/13/2006 11:08:32 AM

South
S. Spokane To S.Dearborn

3 LANES EACH WAY
AT-GRADE

A See Figure R33

SR 99

SB On from
E. Marginal Way

SR 99

Proposed
Relocated
Whatcom
Railyard

BNSF SIG Railyard

B See Figure R33

Revised SIG
Railyard Tracks

Existing Railroad
Tracks

S. LANDER ST.

UTAH AVE. S.

0 100 200
SCALE IN FEET

UTAH AVE. S.

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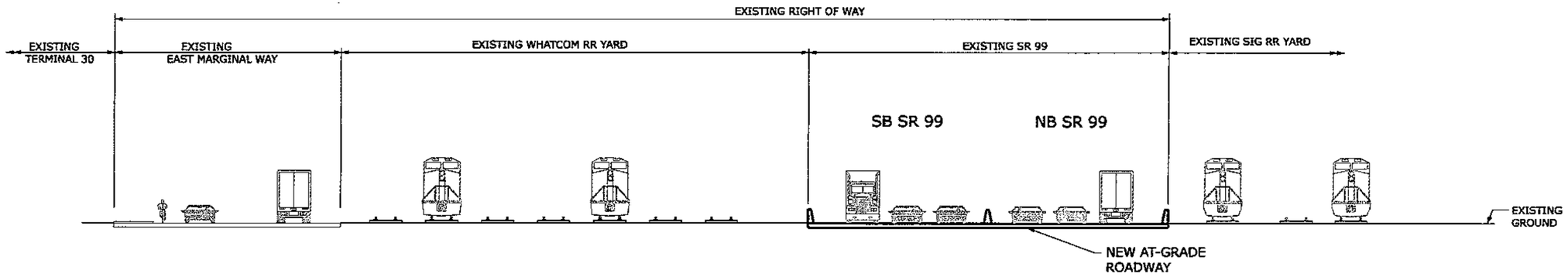
City of Seattle

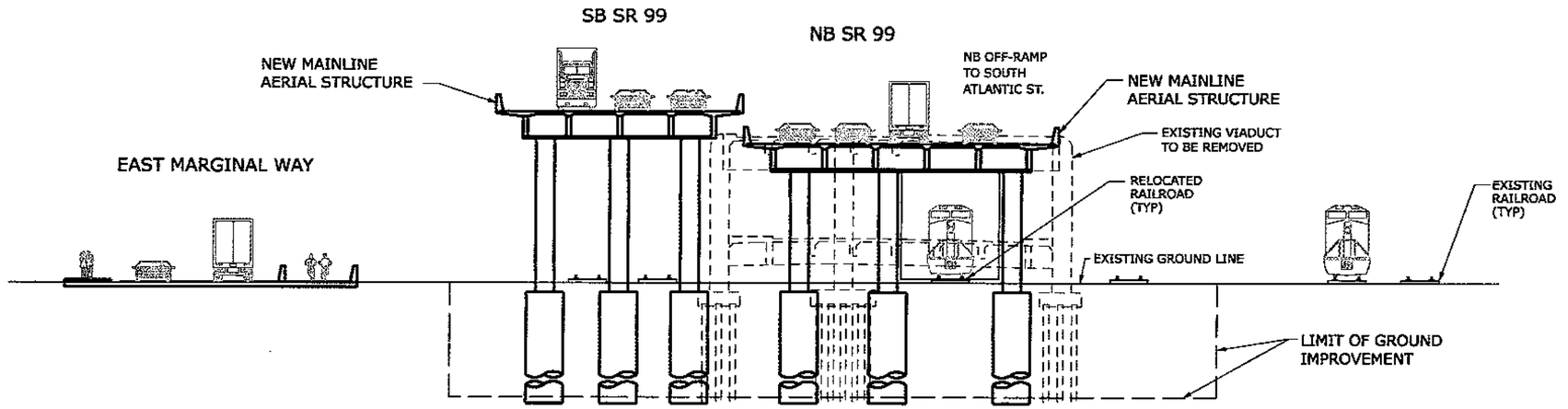
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH OPTION
AT-GRADE, WHATCOM RAILYARD RELOCATED - S. LANDER TO S. HOLGATE

FIGURE NO.
R11



CROSS-SECTION A FROM FIGURE R02



CROSS-SECTION B FROM FIGURE R03

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

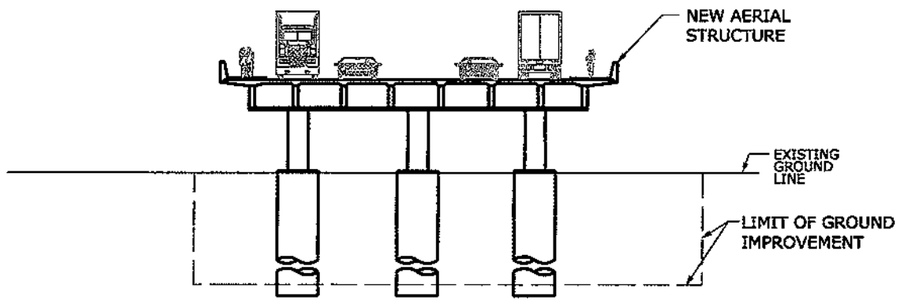
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
CROSS-SECTIONS FROM FIGURES R02, R03

FIGURE NO
R20

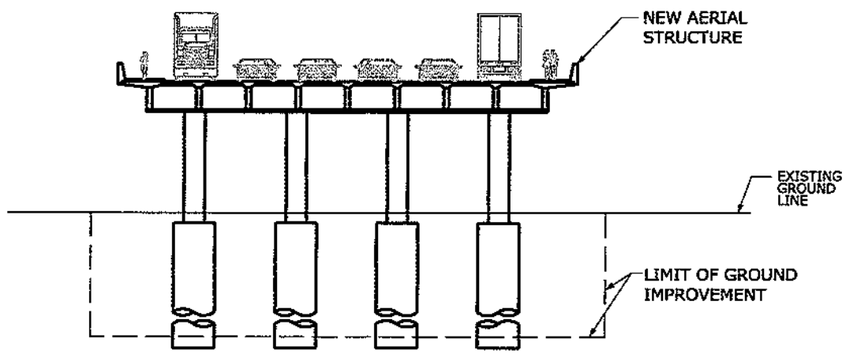
1/13/2006 11:19:41 AM

S ATLANTIC ST

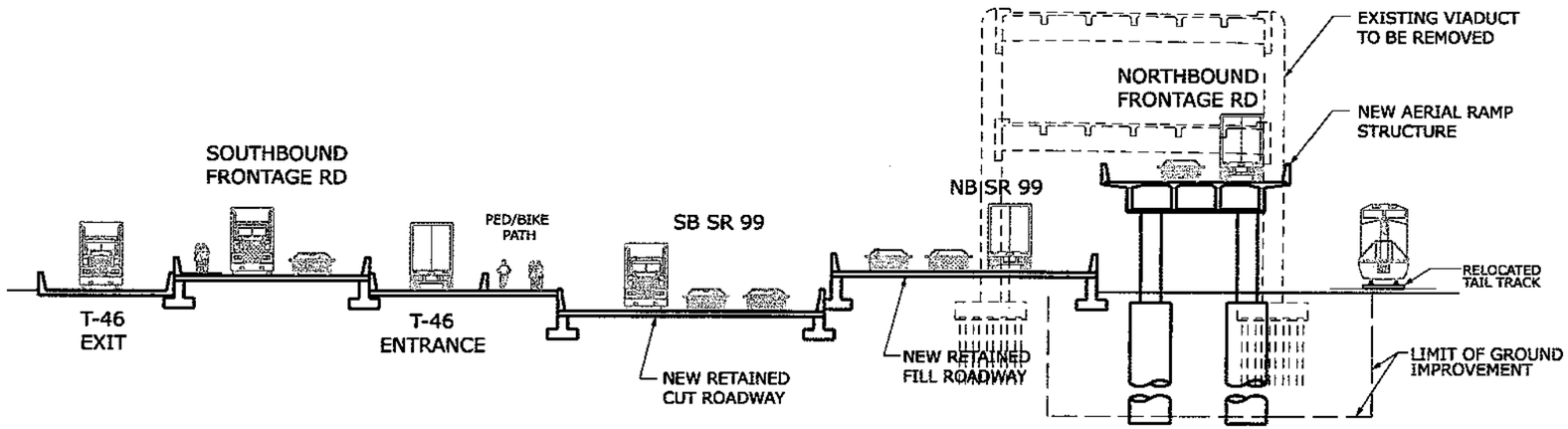


CROSS-SECTION D FROM FIGURE R03

S ROYAL BROUGHAM WAY



CROSS-SECTION E FROM FIGURE R03



CROSS-SECTION C FROM FIGURE R03

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

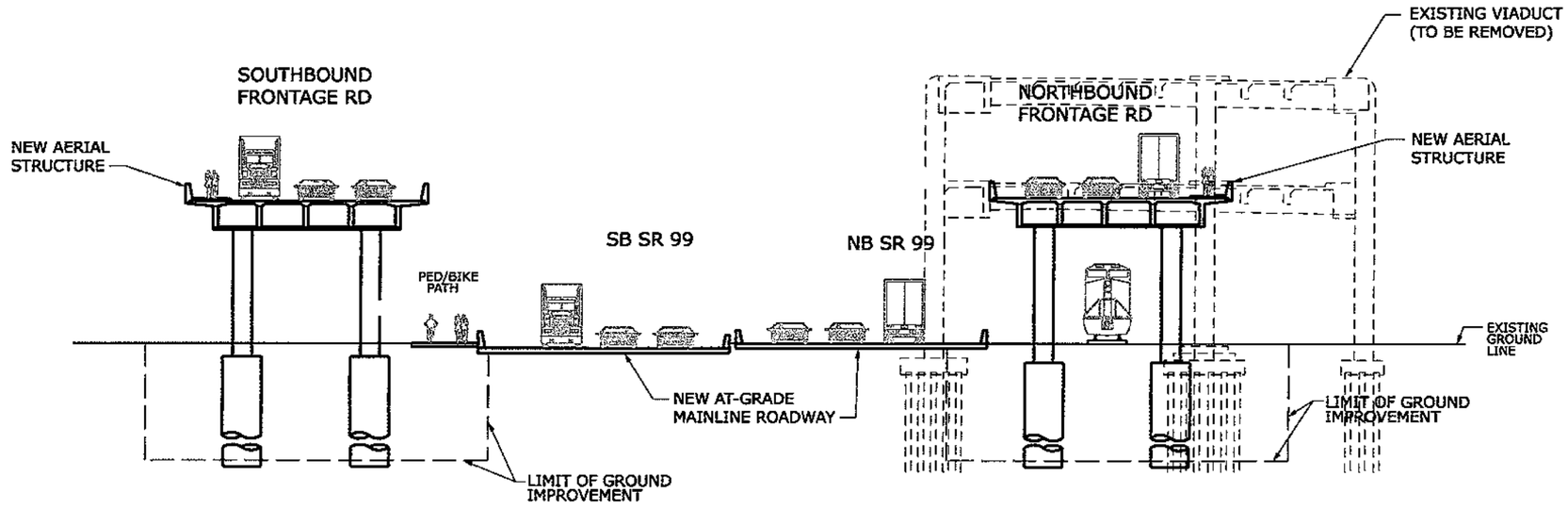
Washington State Department of Transportation

City of Seattle

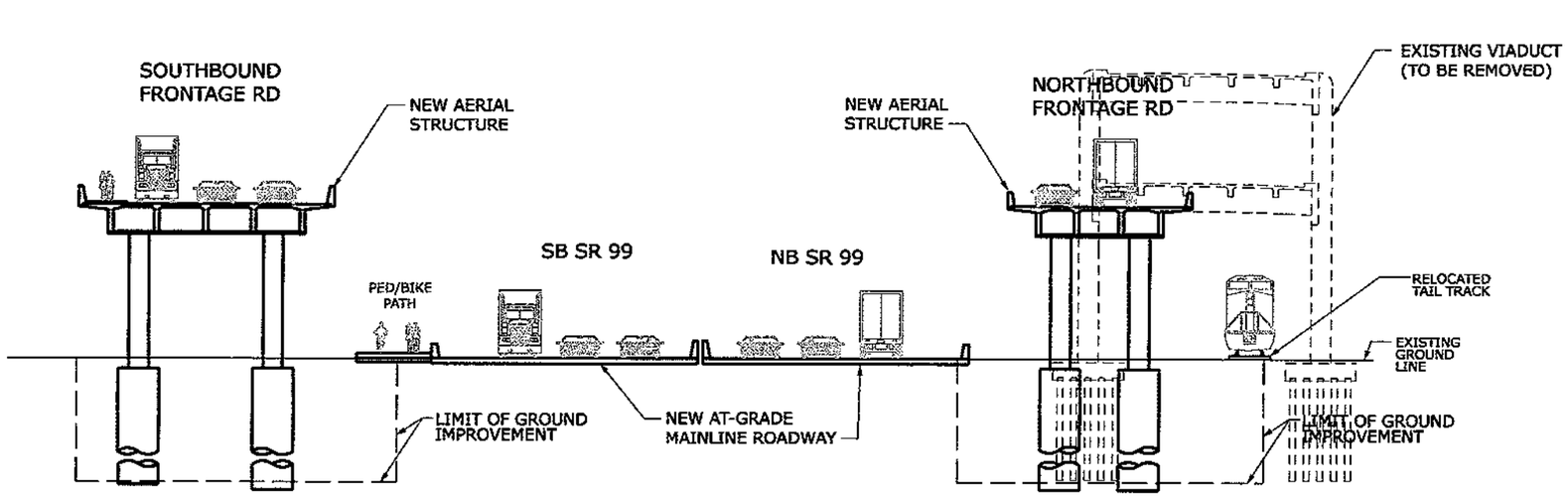
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REDUILD ALTERNATIVE - SOUTH
CROSS-SECTIONS FROM FIGURE R03

FIGURE NO
R21



CROSS-SECTION F FROM FIGURE R03



CROSS-SECTION G FROM FIGURE R03

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

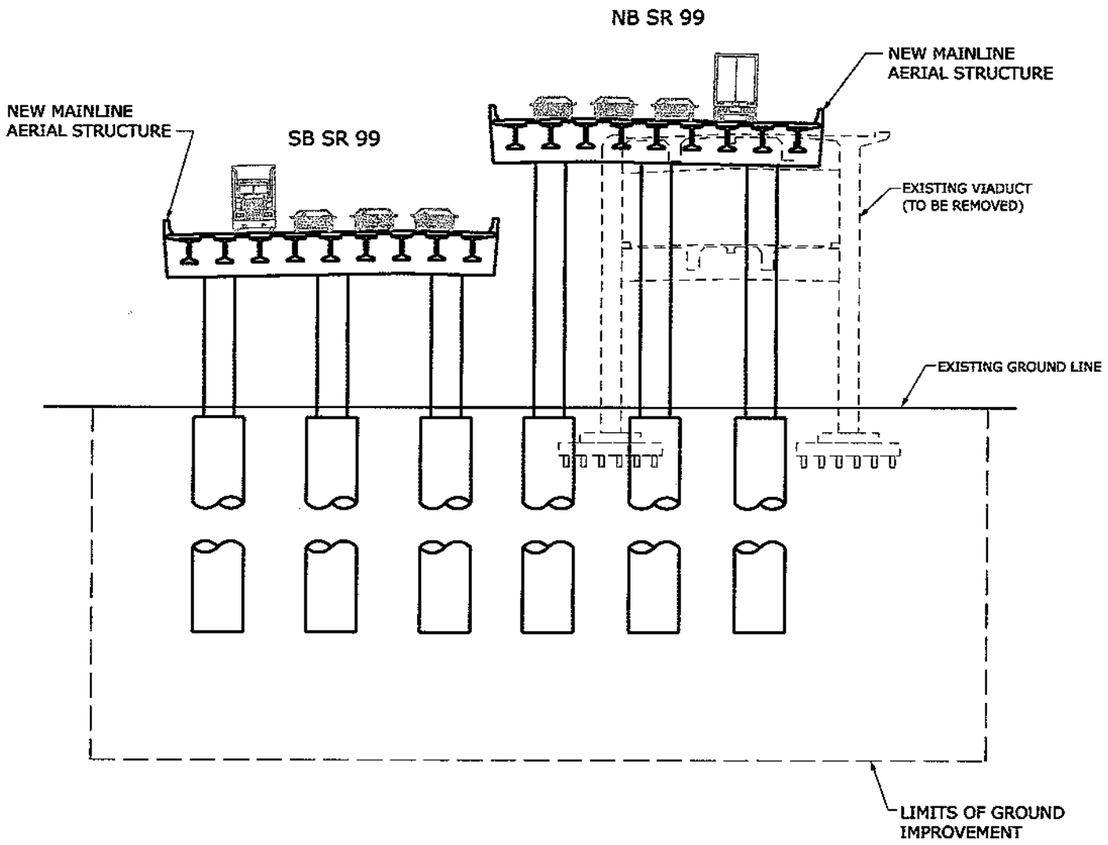
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

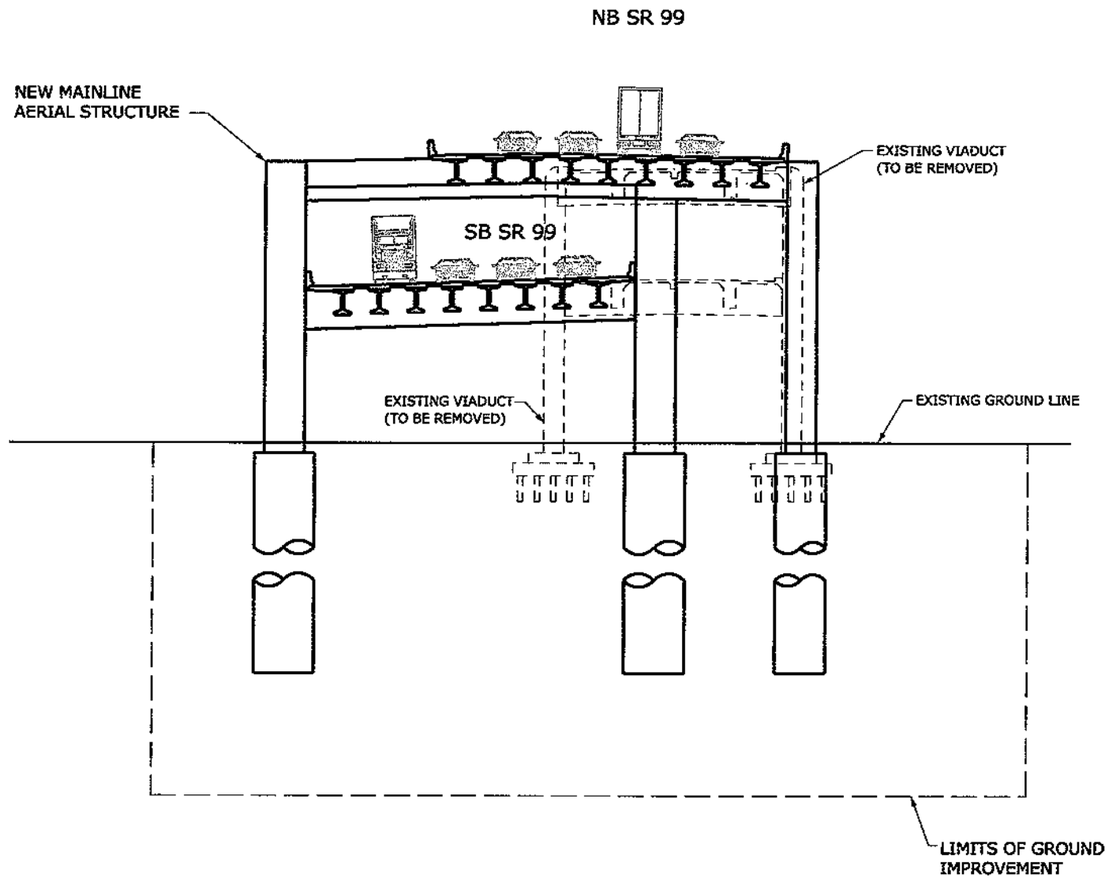
REBUILD ALTERNATIVE - SOUTH
CROSS-SECTIONS FROM FIGURE R03

FIGURE NO
R22

1/15/2008 11:13:43 AM



CROSS-SECTION H FROM FIGURE R04



CROSS-SECTION J FROM FIGURE R04

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

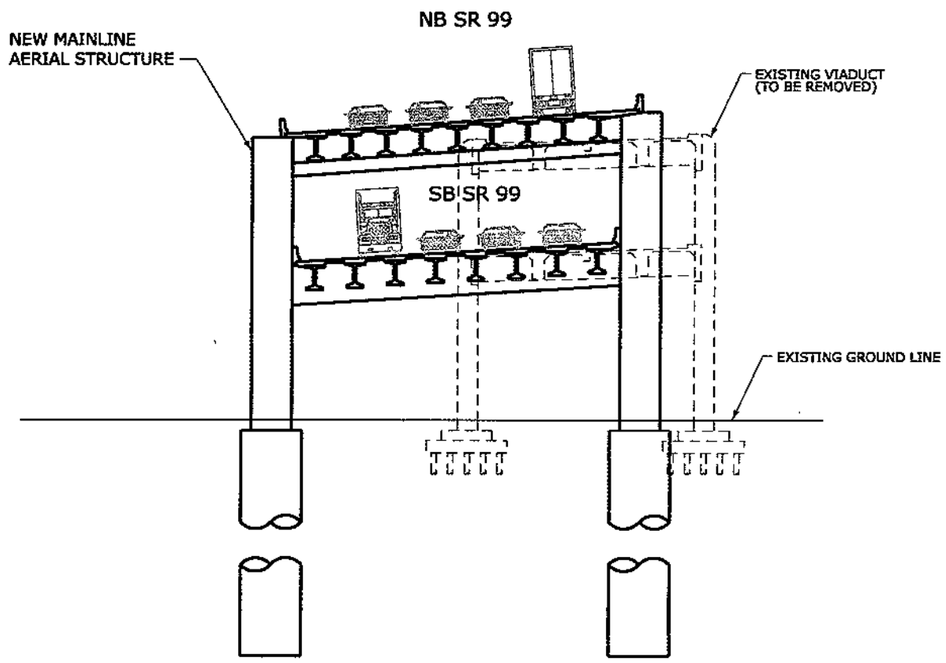
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

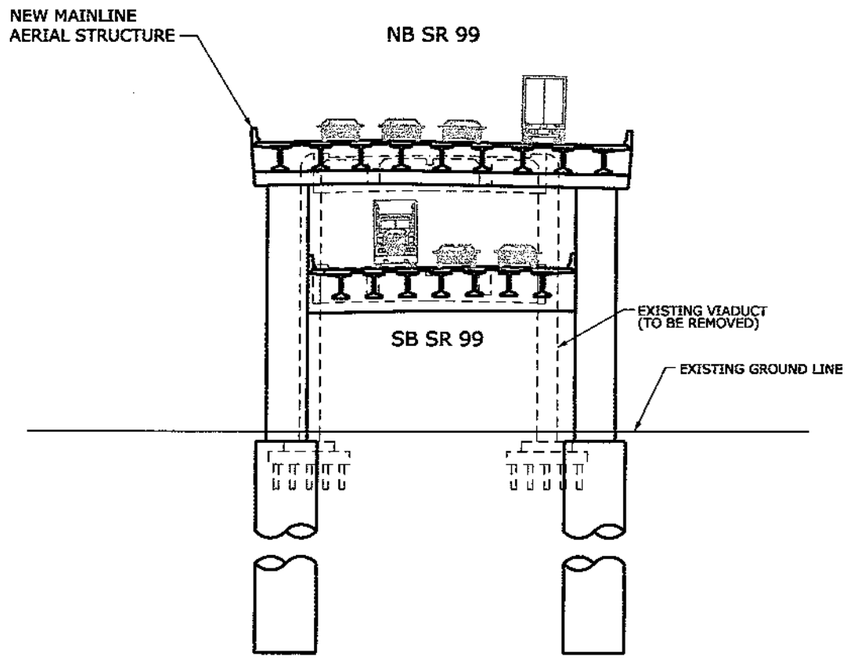
REBUILD ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURE R04

FIGURE NO
R23

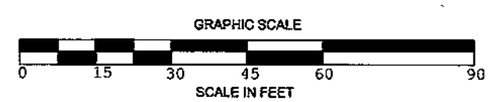
1/13/2006 11x14x03 AM



CROSS-SECTION K FROM FIGURE R05



CROSS-SECTION L FROM FIGURE R05



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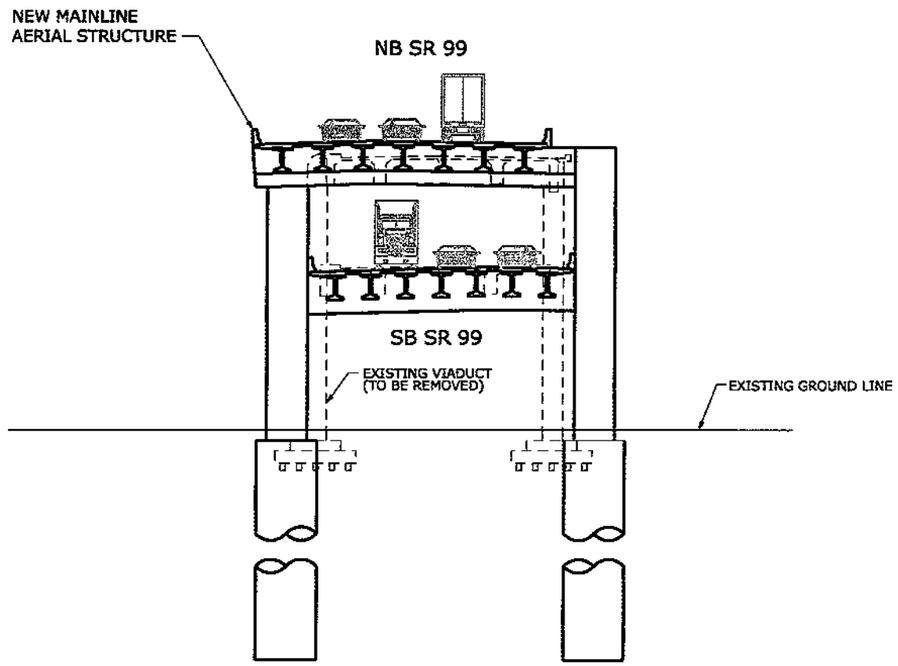
City of Seattle

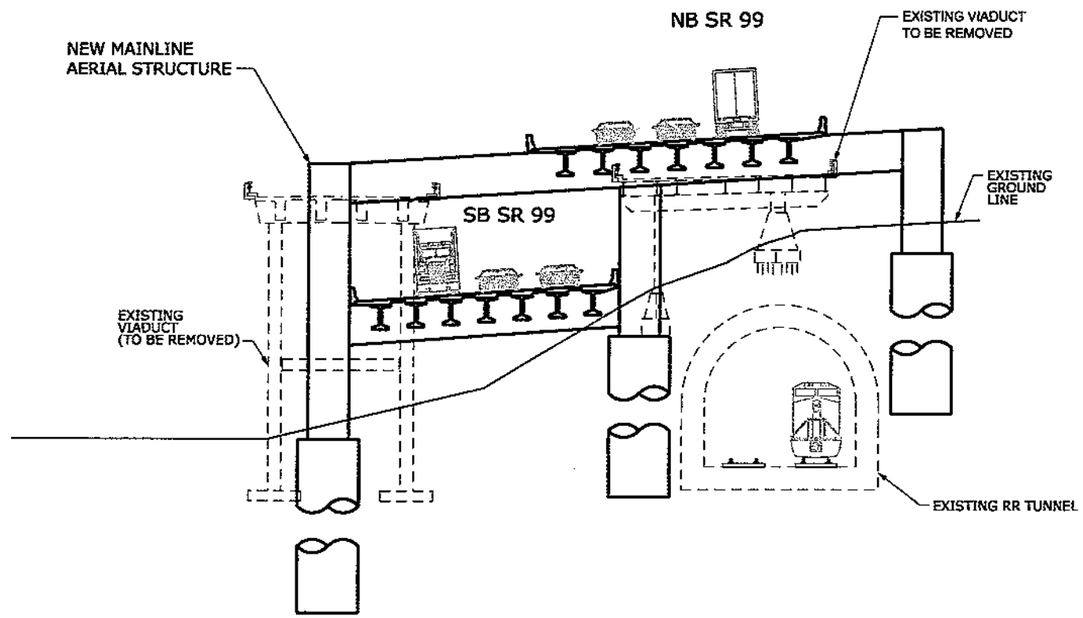
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURES R05

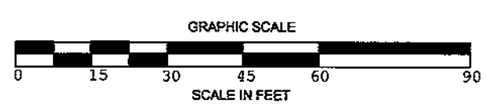
FIGURE NO
R24



CROSS-SECTION M FROM FIGURE R06



CROSS-SECTION N FROM FIGURE R06



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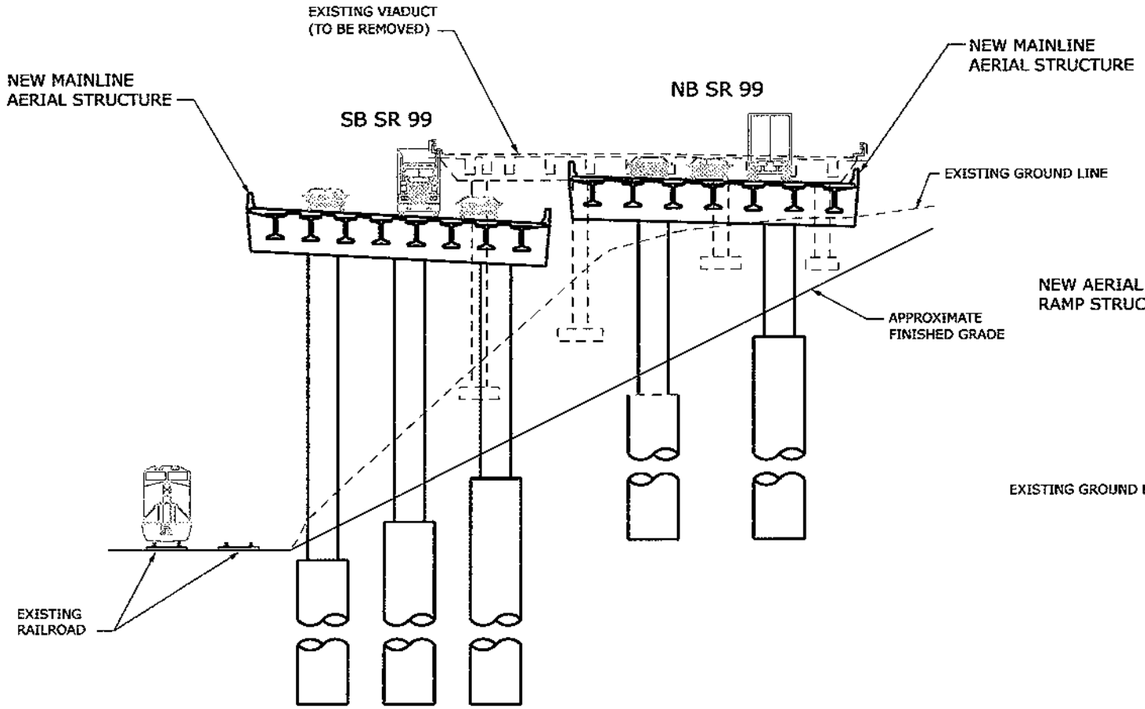
City of Seattle

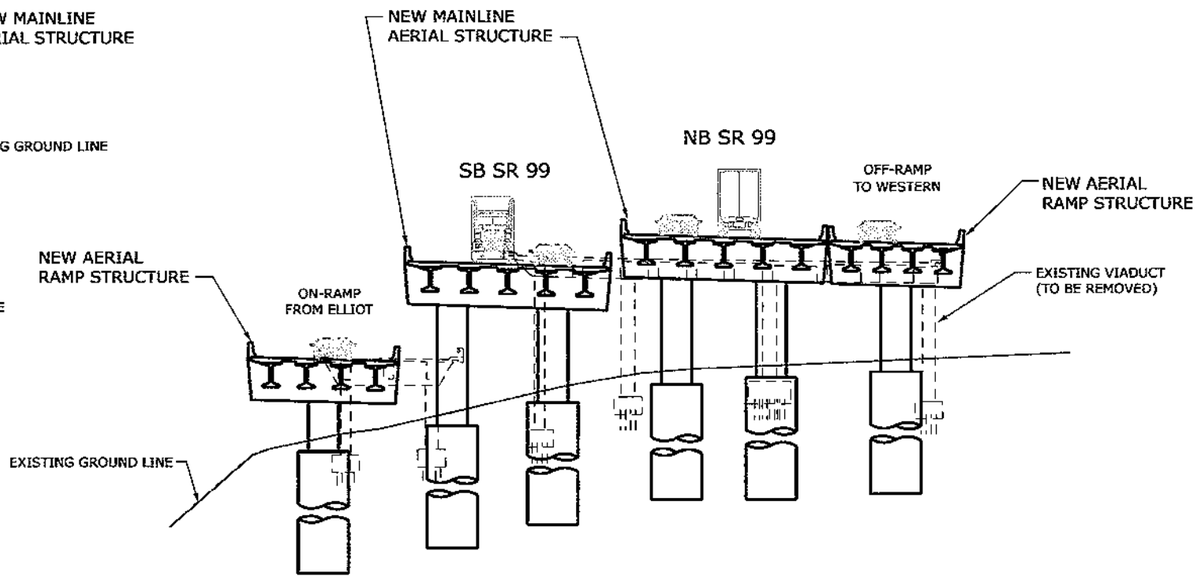
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURE R06

FIGURE NO
R25



CROSS-SECTION P FROM FIGURE R06



CROSS-SECTION Q FROM FIGURE R06

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

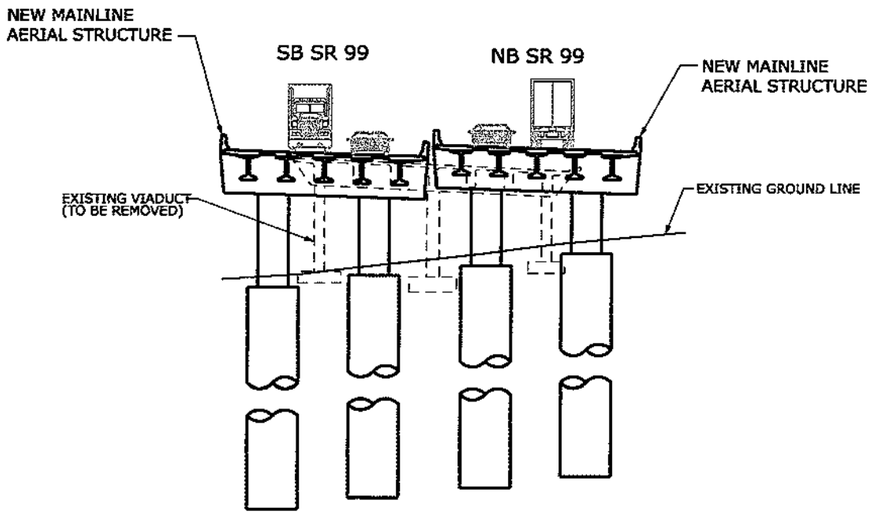
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

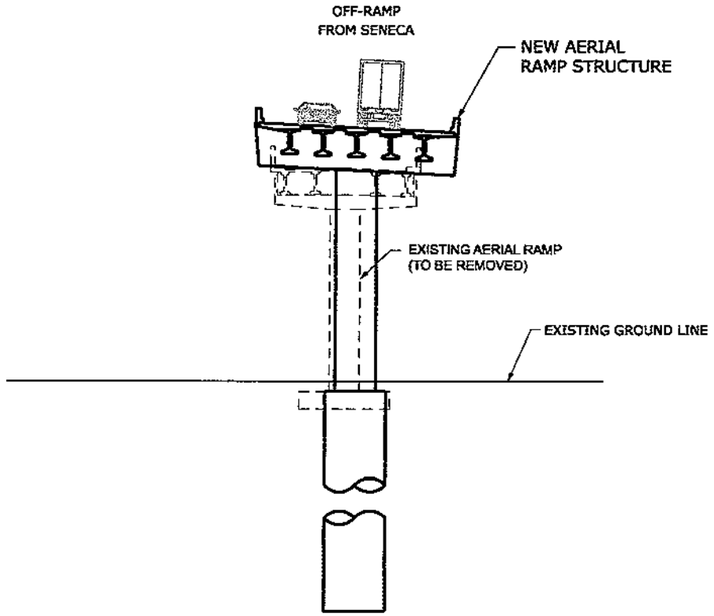
REBUILD ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURE R06

FIGURE NO
R26

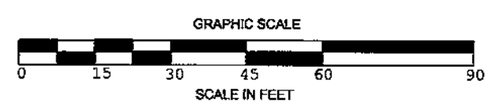
9/23/2006 11:54:50 AM



CROSS-SECTION R FROM FIGURE R07



CROSS-SECTION S FROM FIGURE R05



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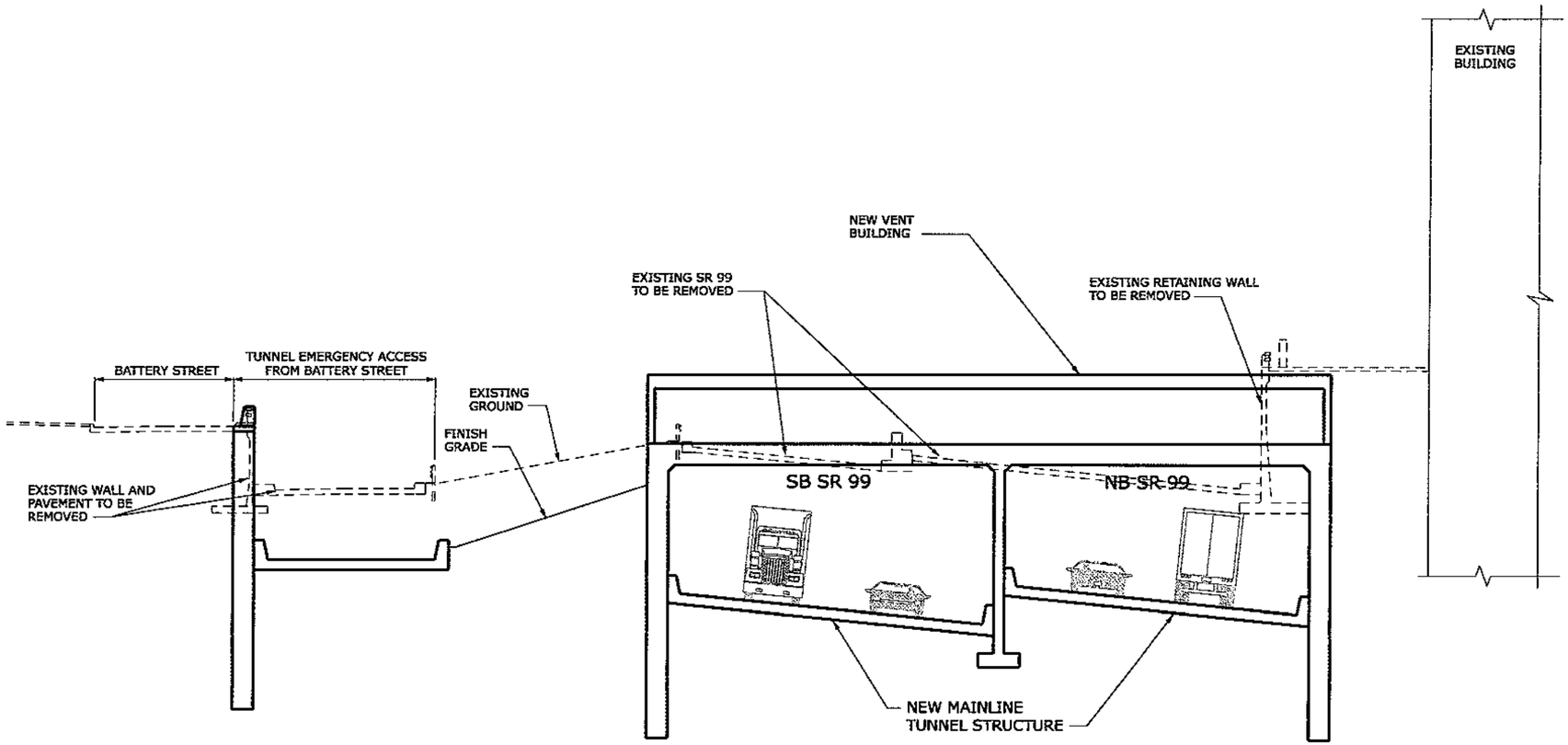
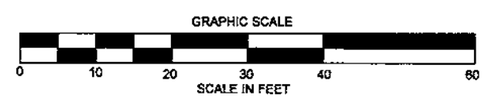
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
CROSS-SECTIONS FROM FIGURES R07, R05

FIGURE NO
R27



CROSS-SECTION T FROM FIGURE R07



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Federal Highway Administration

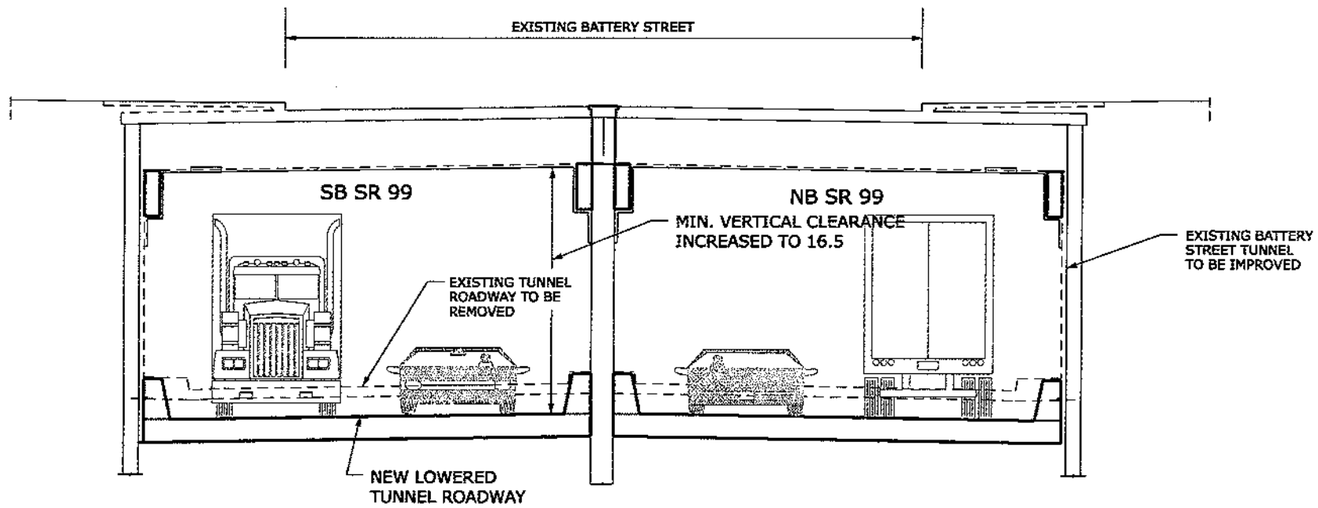
Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
CROSS-SECTION FROM FIGURE R07

FIGURE NO
R28



CROSS-SECTION U FROM FIGURE R07

GRAPHIC SCALE

0 5 10 15 20 30

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

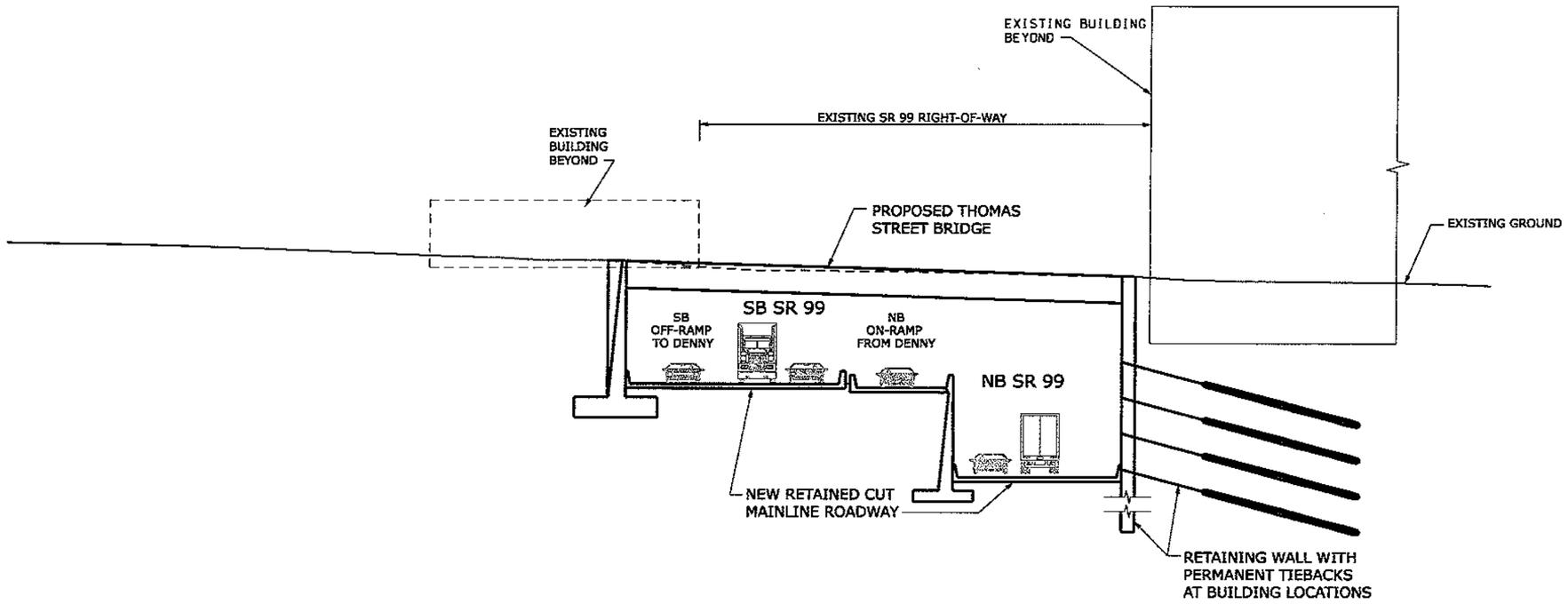
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

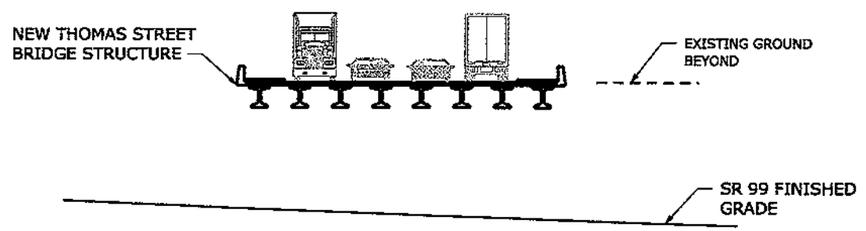
TUNNEL ALTERNATIVE - NORTH
CROSS SECTION FROM FIGURE R07

FIGURE NO
R29

3/13/2006 11:03:09 AM



CROSS-SECTION V FROM FIGURE R08



CROSS-SECTION W FROM FIGURE R08

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation Federal Highway Administration

Washington State Department of Transportation

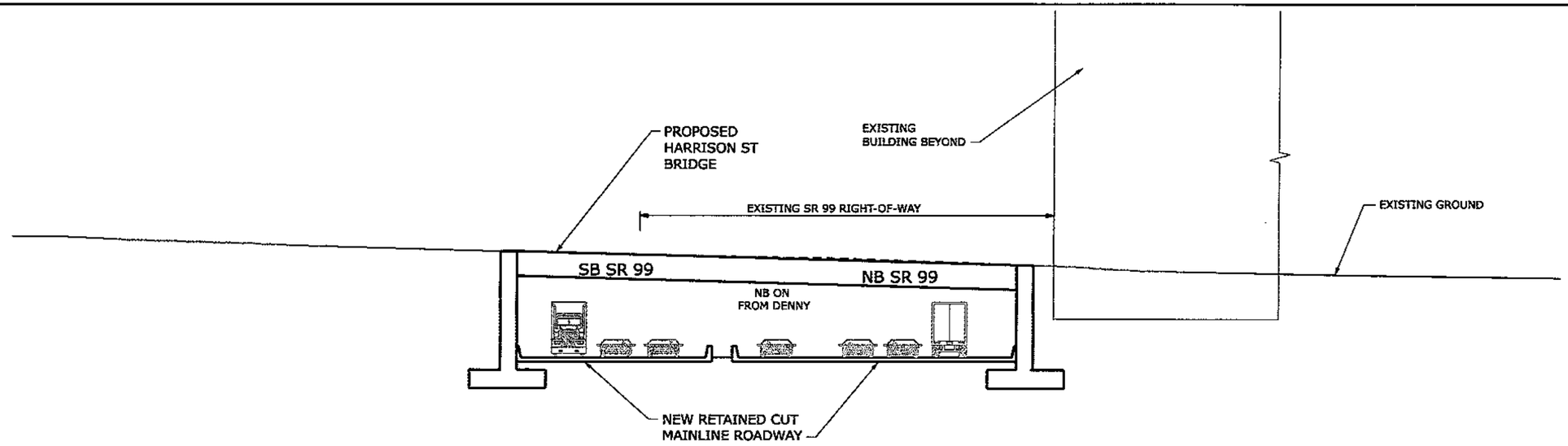
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

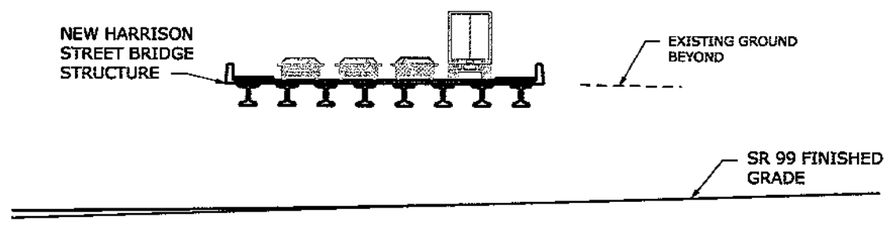
LOWERED AURORA - NORTH
CROSS-SECTIONS FROM FIGURE R08

FIGURE NO
R30

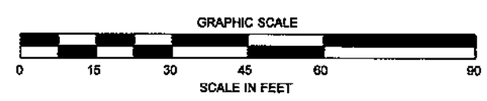
1/13/2006 11:11:40 AM



CROSS-SECTION X FROM FIGURE R08



CROSS-SECTION Y FROM FIGURE R08



U.S. Department of Transportation
Federal Highway Administration

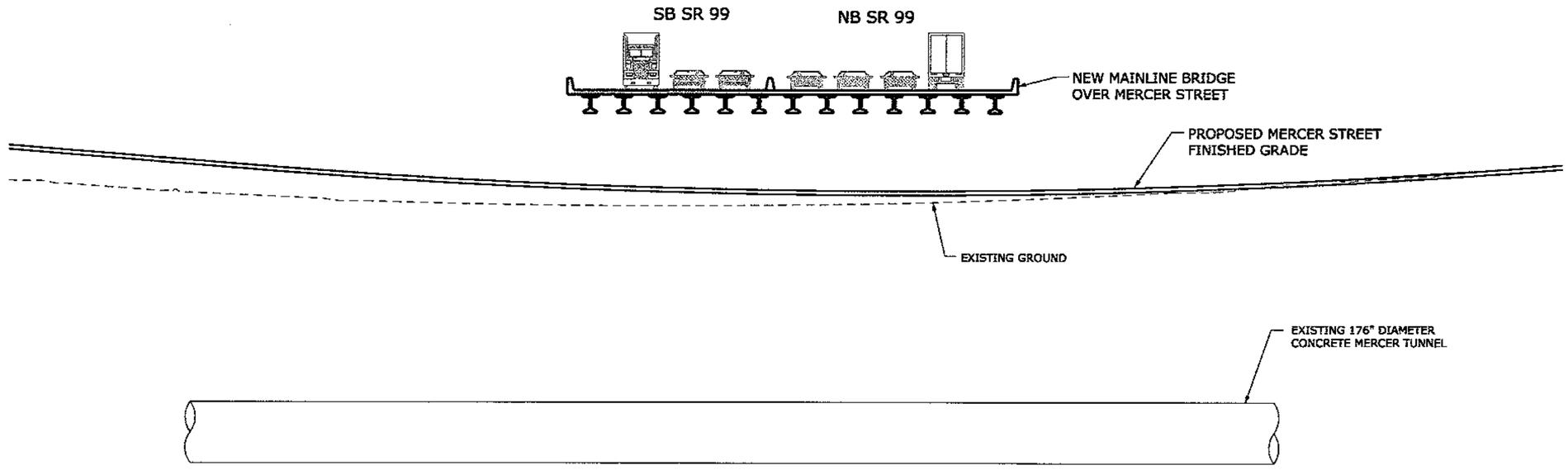
Washington State Department of Transportation

City of Seattle

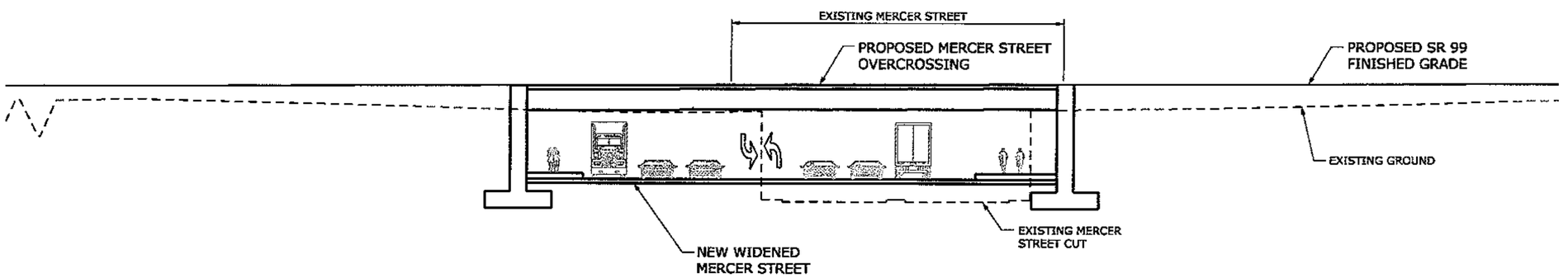
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
CROSS-SECTIONS FROM FIGURE R08

FIGURE NO
R31



CROSS-SECTION Z FROM FIGURE R09



CROSS-SECTION AA FROM FIGURE R09

GRAPHIC SCALE

0 15 30 45 60 90

SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

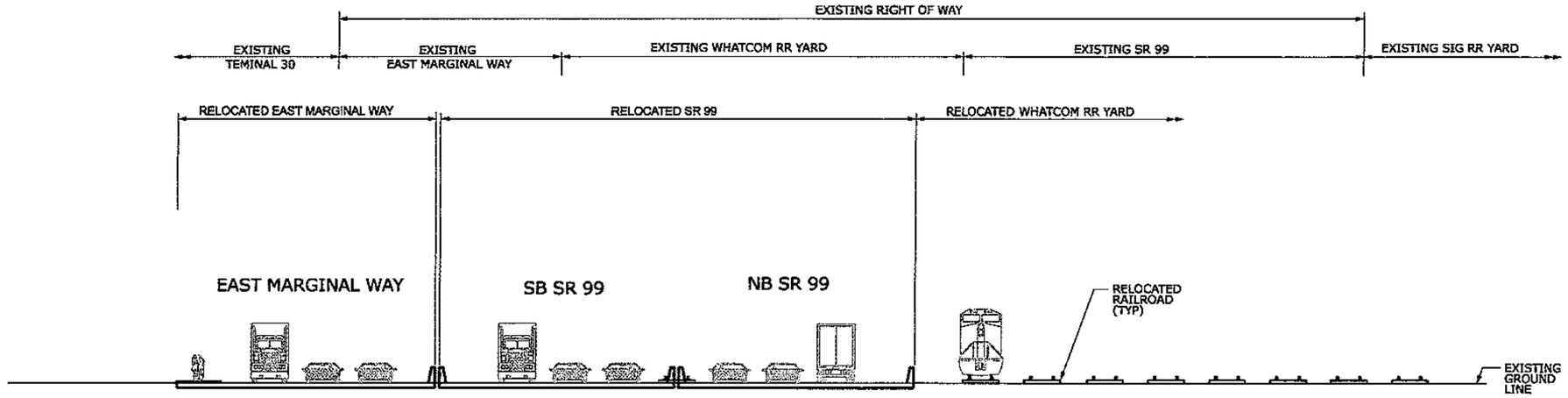
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

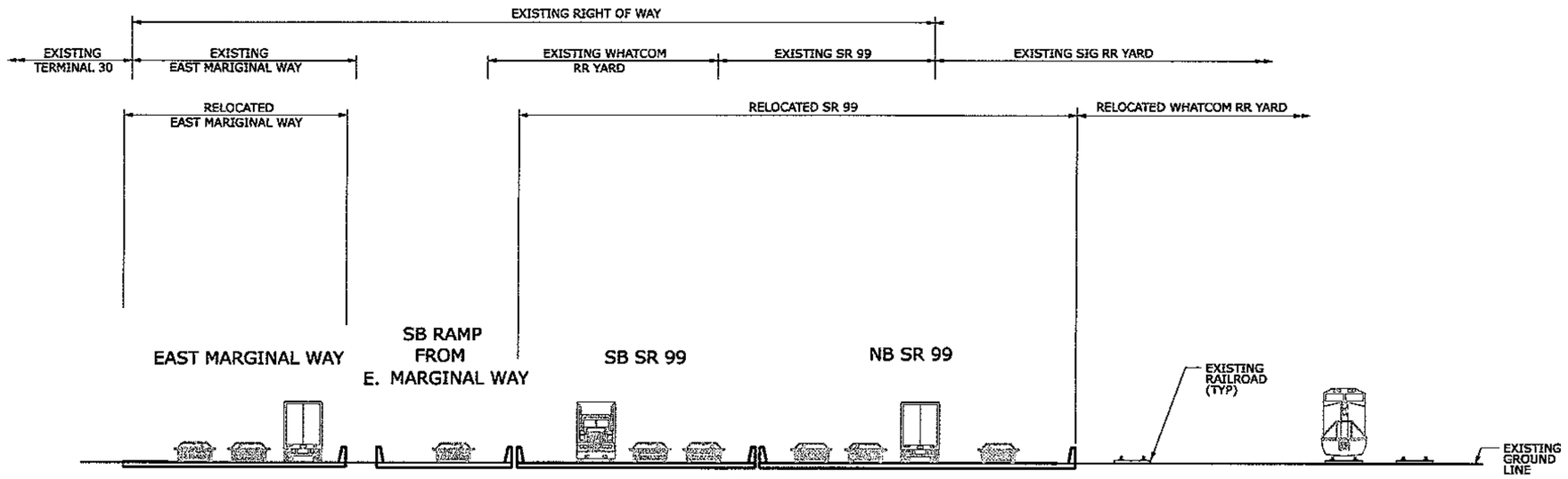
REBUILD ALTERNATIVE - NORTH
CROSS-SECTIONS FROM FIGURE R09

FIGURE NO
R32

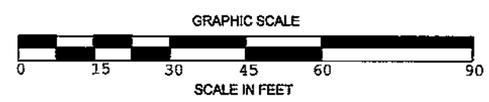
3/13/2008 11:23:04 AM



CROSS-SECTION A FROM FIGURE R10, R11



CROSS-SECTION B FROM FIGURE R11



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Federal Highway Administration

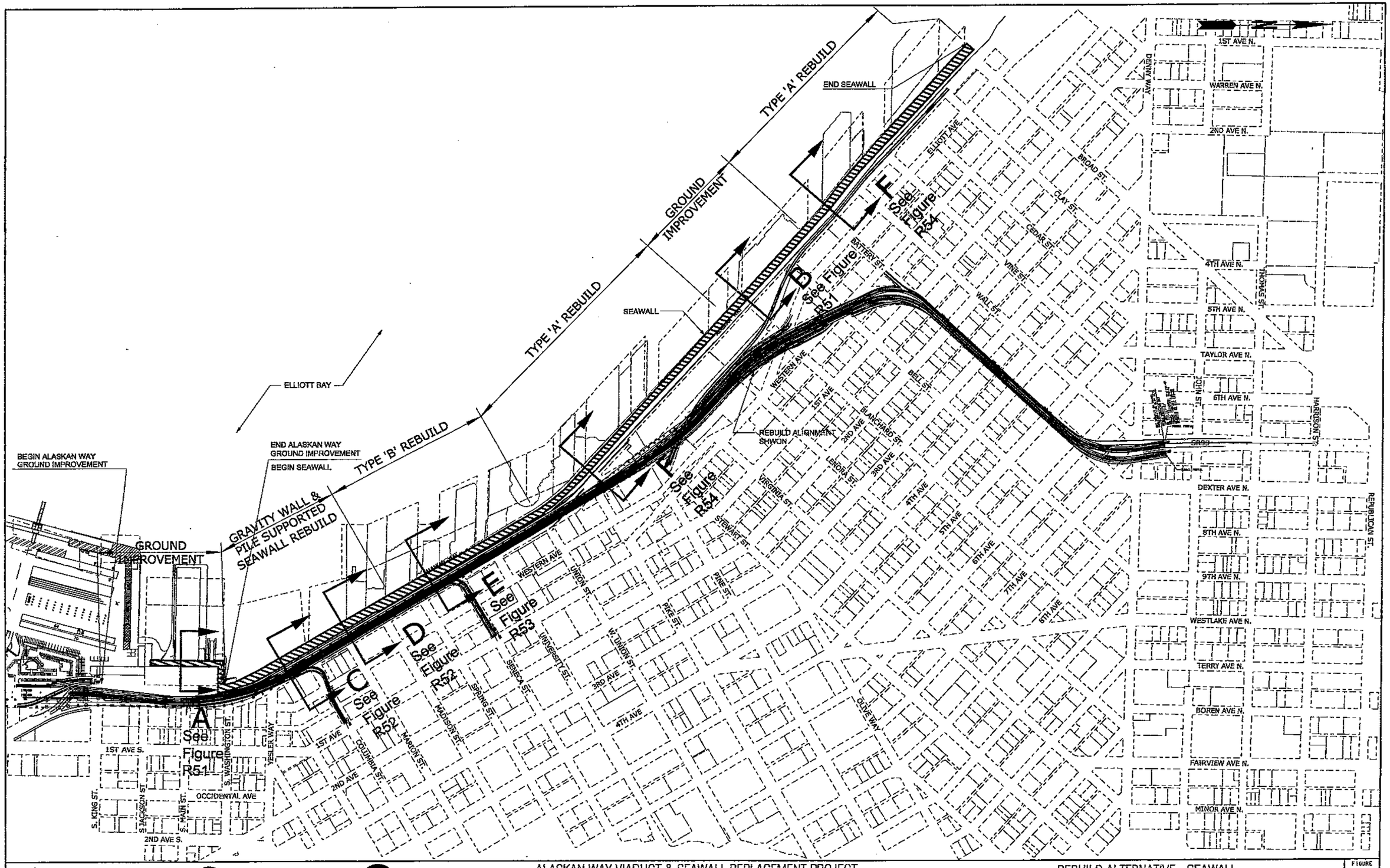
Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH OPTION
CROSS-SECTIONS FROM FIGURES R10, R11

FIGURE NO
R33



U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

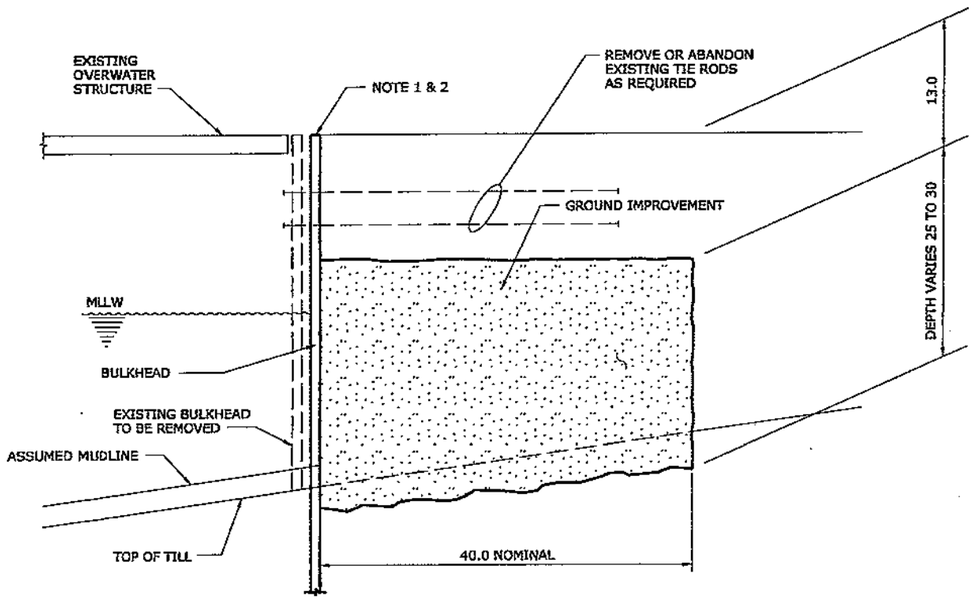
REBUILD ALTERNATIVE - SEAWALL
GENERAL LAYOUT AND KEY PLAN

FIGURE NO.
R50

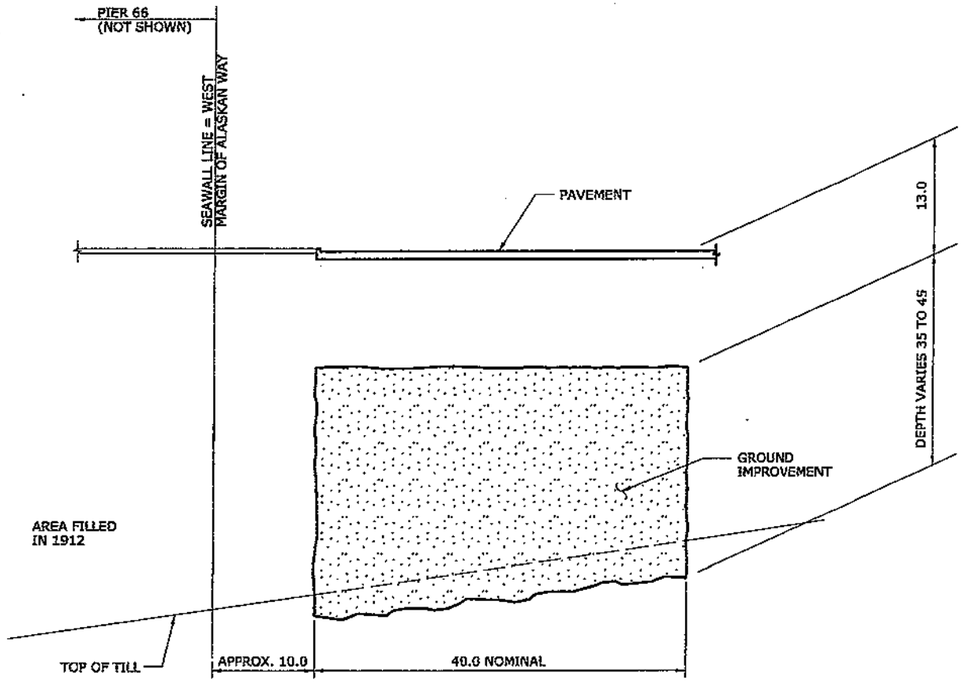
12/4/2006 11:14:13 AM D:\2007\JAFWT-02-026\CADD\engp_PUBSHRSC.dgn

NOTES:

1. THE EXACT LOCATION OF THE REPLACEMENT BULKHEAD HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING BULKHEAD OR IN THE SAME LOCATION AS THE EXISTING BULKHEAD.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING BULKHEAD TO FACILITATE CONSTRUCTION.



SECTION A FROM FIGURE R50
GROUND IMPROVEMENT @ PIER 48



SECTION B FROM FIGURE R50
GROUND IMPROVEMENT @ PIER 66

GRAPHIC SCALE
0 8 16
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration
Washington State Department of Transportation
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

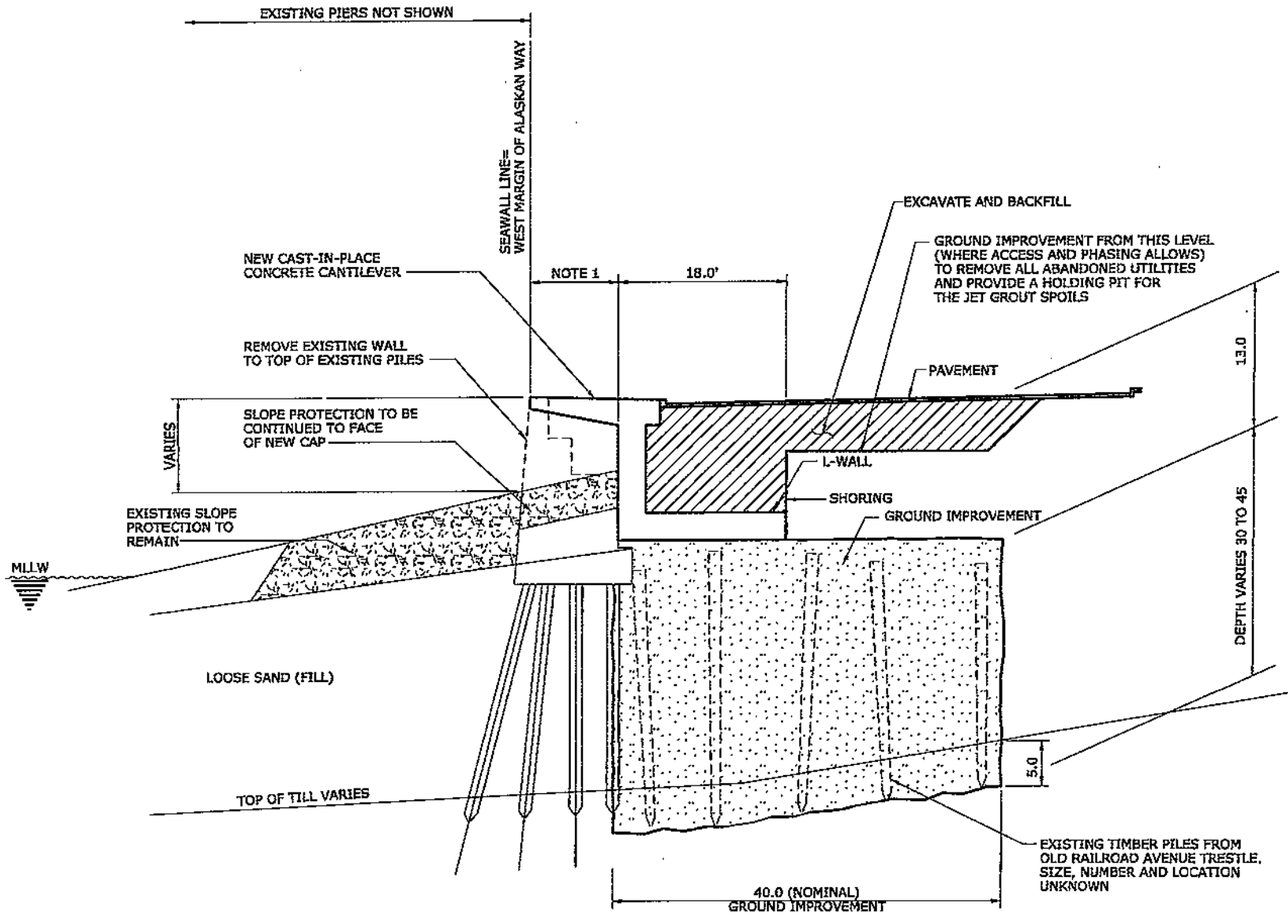
REBUILD ALTERNATIVE - SEAWALL
CROSS-SECTION, FROM FIGURE R50

FIGURE NO
R51

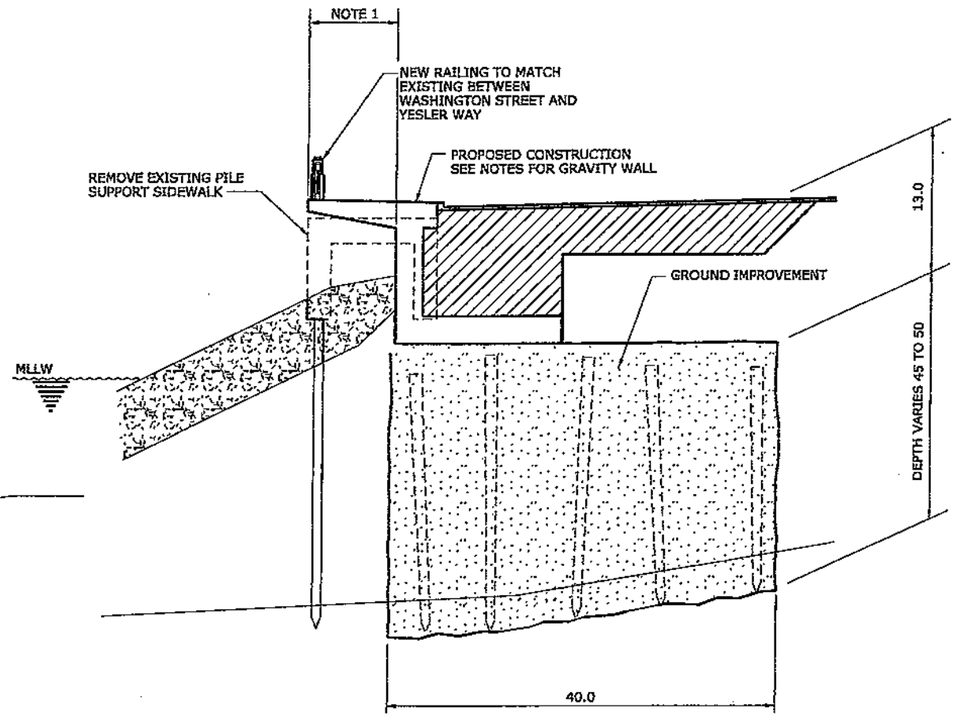
11/4/2005 11:46:43 AM

NOTE:

1. THE EXACT LOCATION OF THE REPLACEMENT SEAWALL HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING SEAWALL OR IN THE SAME LOCATION AS THE EXISTING SEAWALL.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING SEAWALL TO FACILITATE CONSTRUCTION.



SECTION C FROM FIGURE R50
REBUILD @ GRAVITY WALL



SECTION D FROM FIGURE R50
REBUILD @ PILE SUPPORTED SIDEWALK

GRAPHIC SCALE
0 8 16
SCALE IN FEET

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

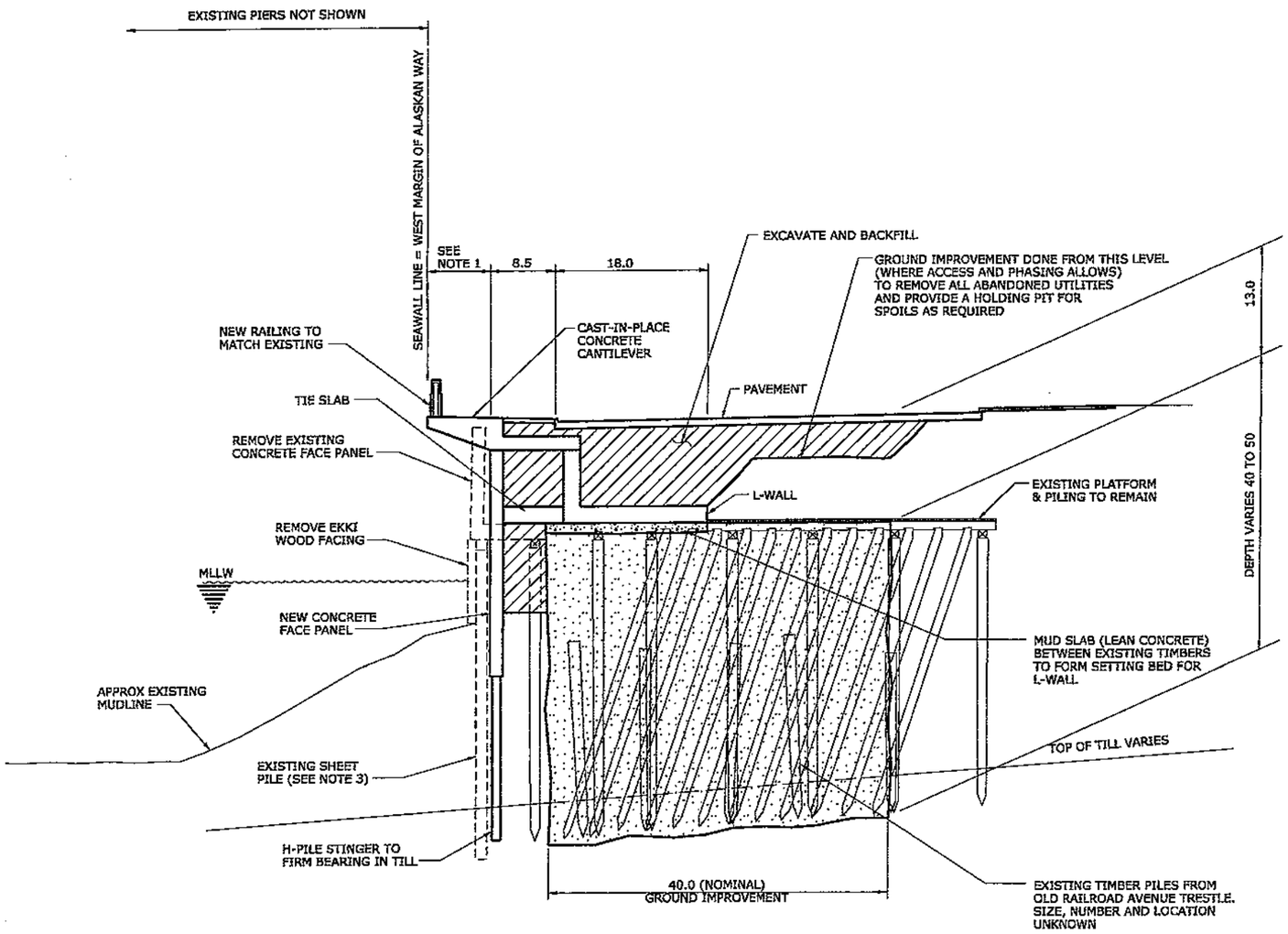
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SEAWALL
CROSS-SECTION, FROM FIGURE R50

FIGURE NO
R52

12/4/2005 11:45:26 AM

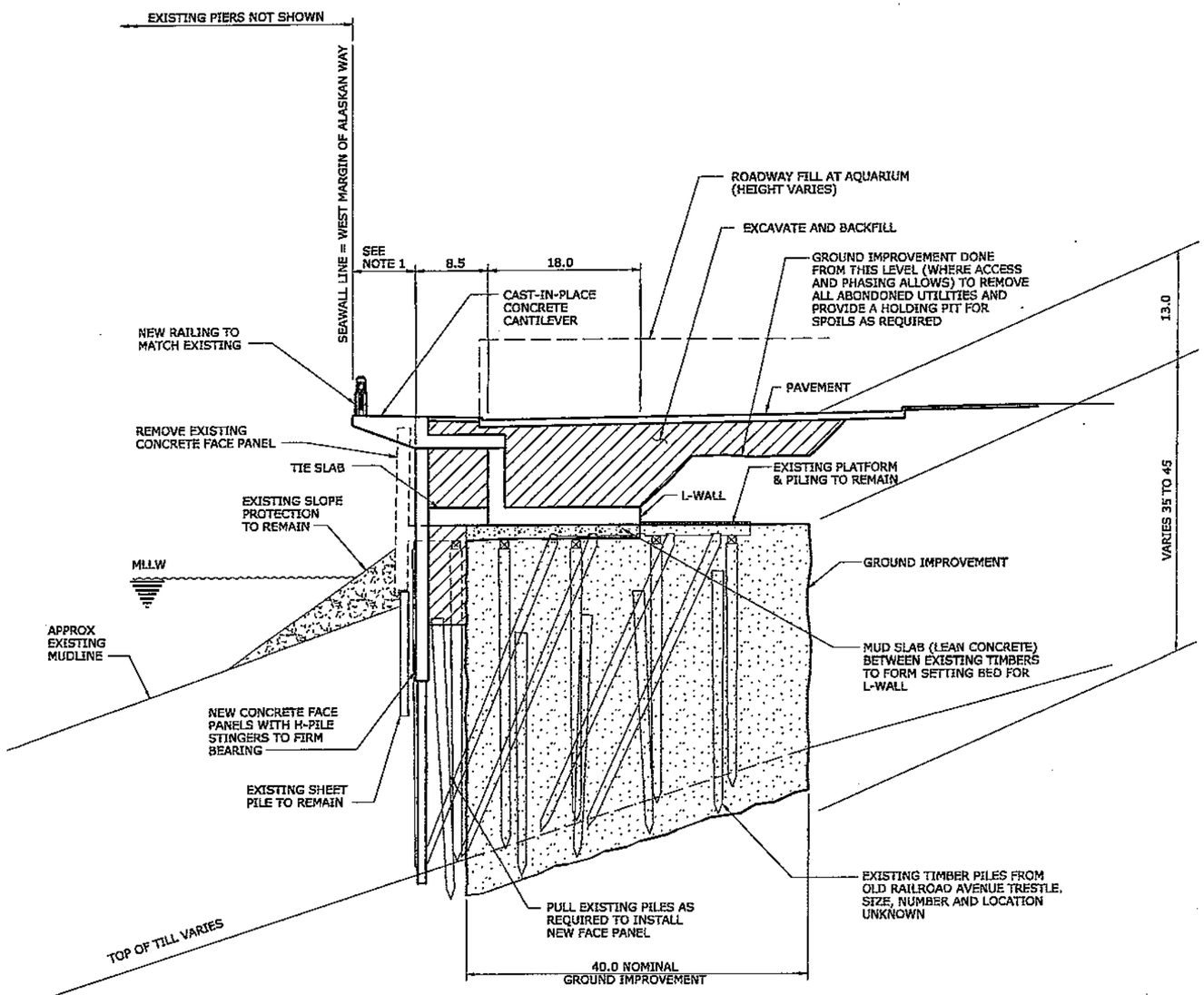


NOTES:

1. THE EXACT LOCATION OF THE REPLACEMENT SEAWALL HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING SEAWALL OR IN THE SAME LOCATION AS THE EXISTING SEAWALL.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING SEAWALL TO FACILITATE CONSTRUCTION.
3. THE EXISTING SHEET PILE MAY EITHER BE CUT OFF AT THE MUDLINE OR IT MAY BE PULLED DEPENDING ON THE FINAL LOCATION OF THE REPLACEMENT SEAWALL.

SECTION E FROM FIGURE R50
TYPE 'B' RELIEVING PLATFORM

GRAPHIC SCALE
0 8 16
SCALE IN FEET

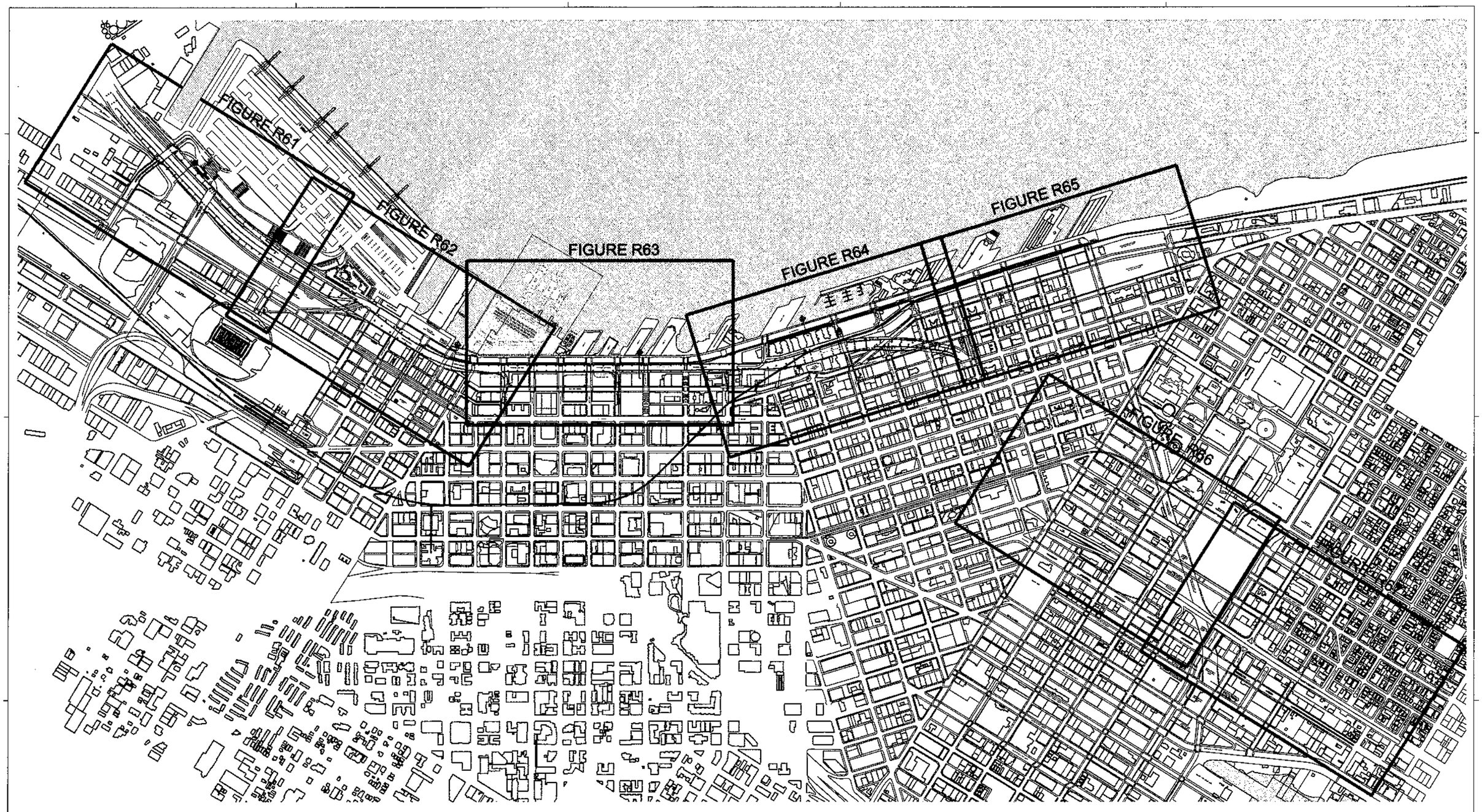


SECTION F FROM FIGURE R50
TYPE 'A' RELIEVING PLATFORM

NOTE:

1. THE EXACT LOCATION OF THE REPLACEMENT SEAWALL HAS NOT YET BEEN DETERMINED. IT MAY BE PLACED INBOARD OF THE EXISTING SEAWALL OR IN THE SAME LOCATION AS THE EXISTING SEAWALL.
2. SHEET PILES MAY BE PLACED IN THE WATER OUTBOARD OF THE EXISTING SEAWALL TO FACILITATE CONSTRUCTION.

GRAPHIC SCALE
0 8 16
SCALE IN FEET



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 500 1000 ft

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

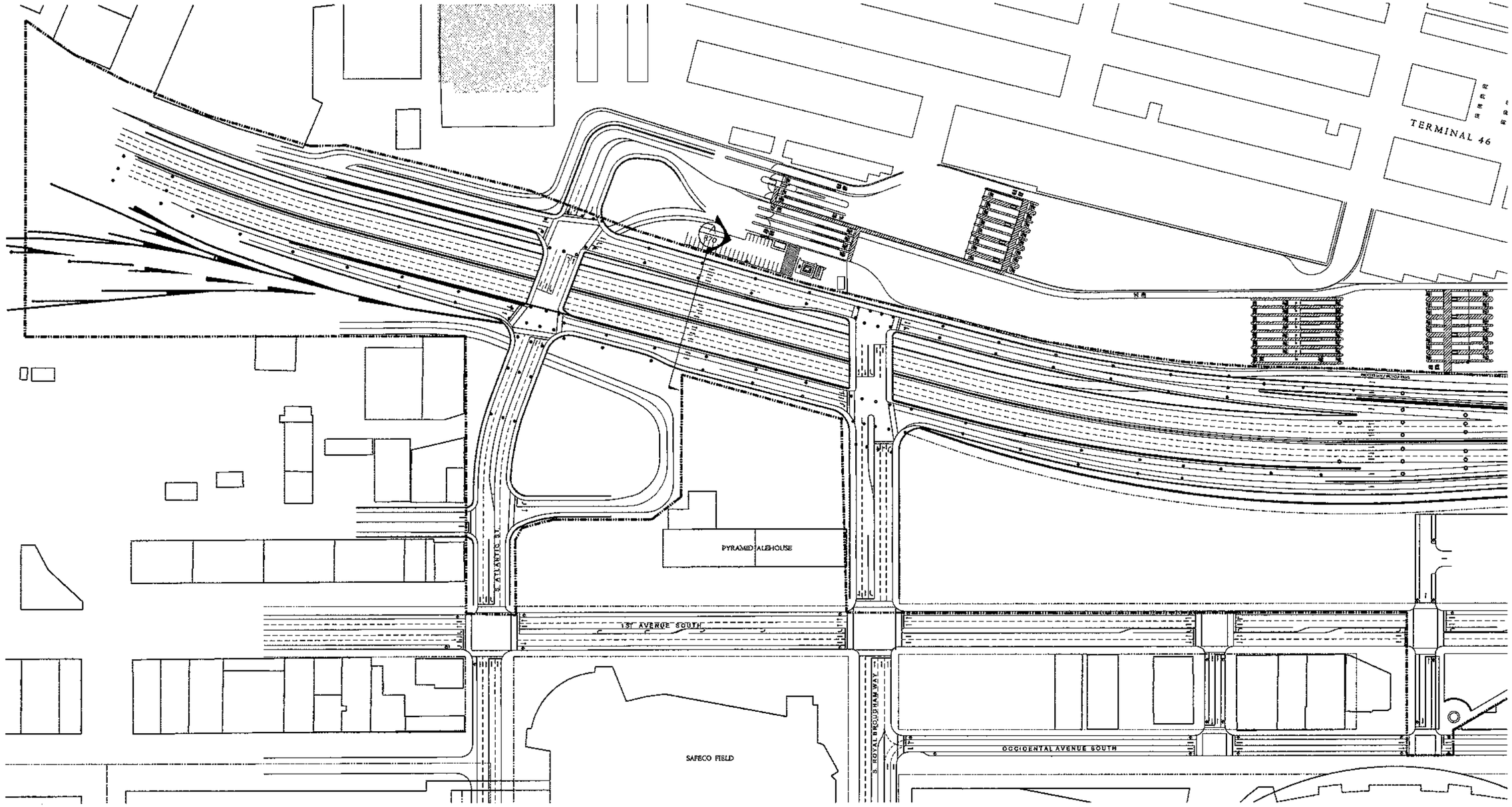
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE
KEY PLAN

FIGURE NO
R60

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
AT GRADE, SR 519 FULL ACCESS ELEVATED
S. MASSACHUSETTS TO S. DEARBORN

FIGURE NO
R61

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\\SHEETS\REBUILD\PLAN.DWG

COLMAN DOCK MODIFICATIONS AND/OR IMPROVEMENTS ARE NOT PART OF THIS PROJECT. THEY ARE TO BE DETERMINED BY WASHINGTON STATE FERRIES.

TERMINAL 46

EXISTING PIER EDGE

PIER 48

EXISTING PIER EDGE

PEDESTRIAN PROMENADE

EXISTING BUILDING

RELOCATED WASHINGTON ST. LANDING

PARKING & BUS STA

REBUILT RAMP STRUCTURE

PARKING & LOADING

REBUILT ABRIEL STRUCTURES

PARKING & LOADING

RELOCATED TAIL TRACK

POTENTIAL FERRY HOLDING AREA

RAILROAD WAY SOUTH

1ST AVENUE SOUTH

SOUTH KING STREET

SOUTH JACKSON STREET

SOUTH MAIN STREET

SOUTH WASHINGTON STREET

YESLER WAY

1ST AVE

PIONEER SQUARE

OCCIDENTAL PARK

OCCIDENTAL AVENUE SOUTH

NOTE:
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0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

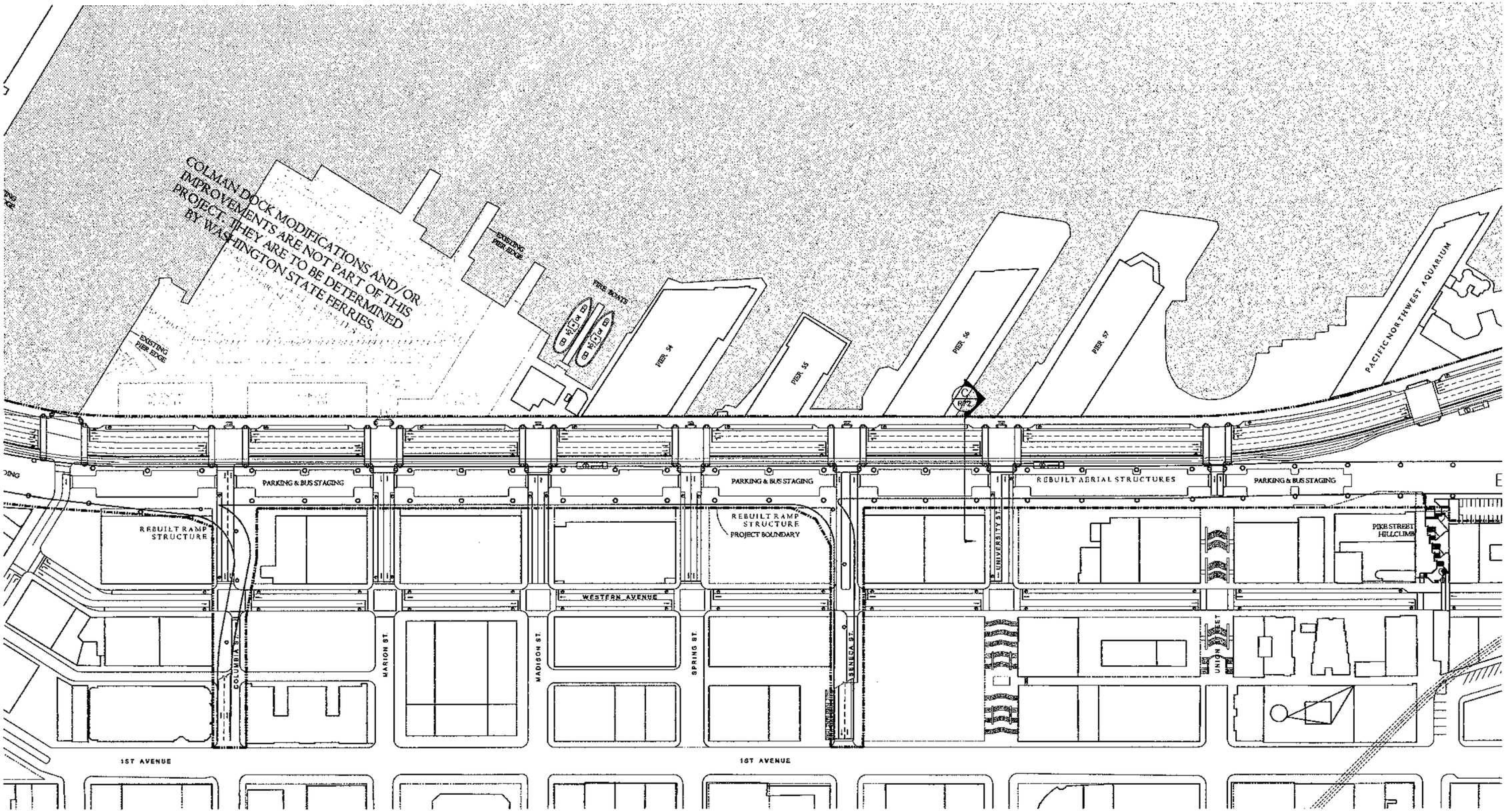
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
S. DEARBORN TO S. WASHINGTON

FIGURE NO
R62

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG



NOTE:
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0 100 200 ft

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

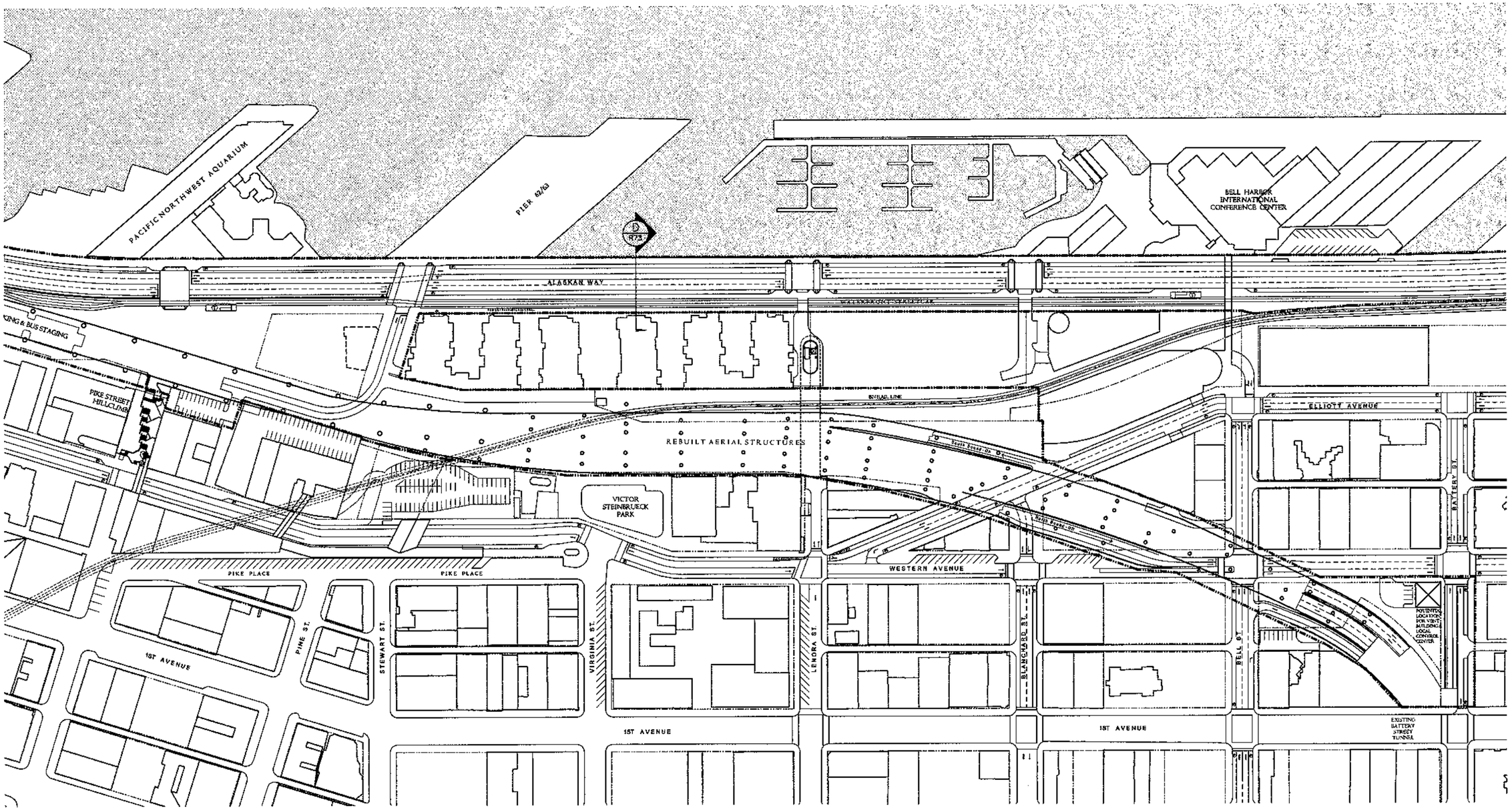
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
S. WASHINGTON TO PIKE

FIGURE NO
R63

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\C4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG



NOTE:
STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

0 100 200 ft

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

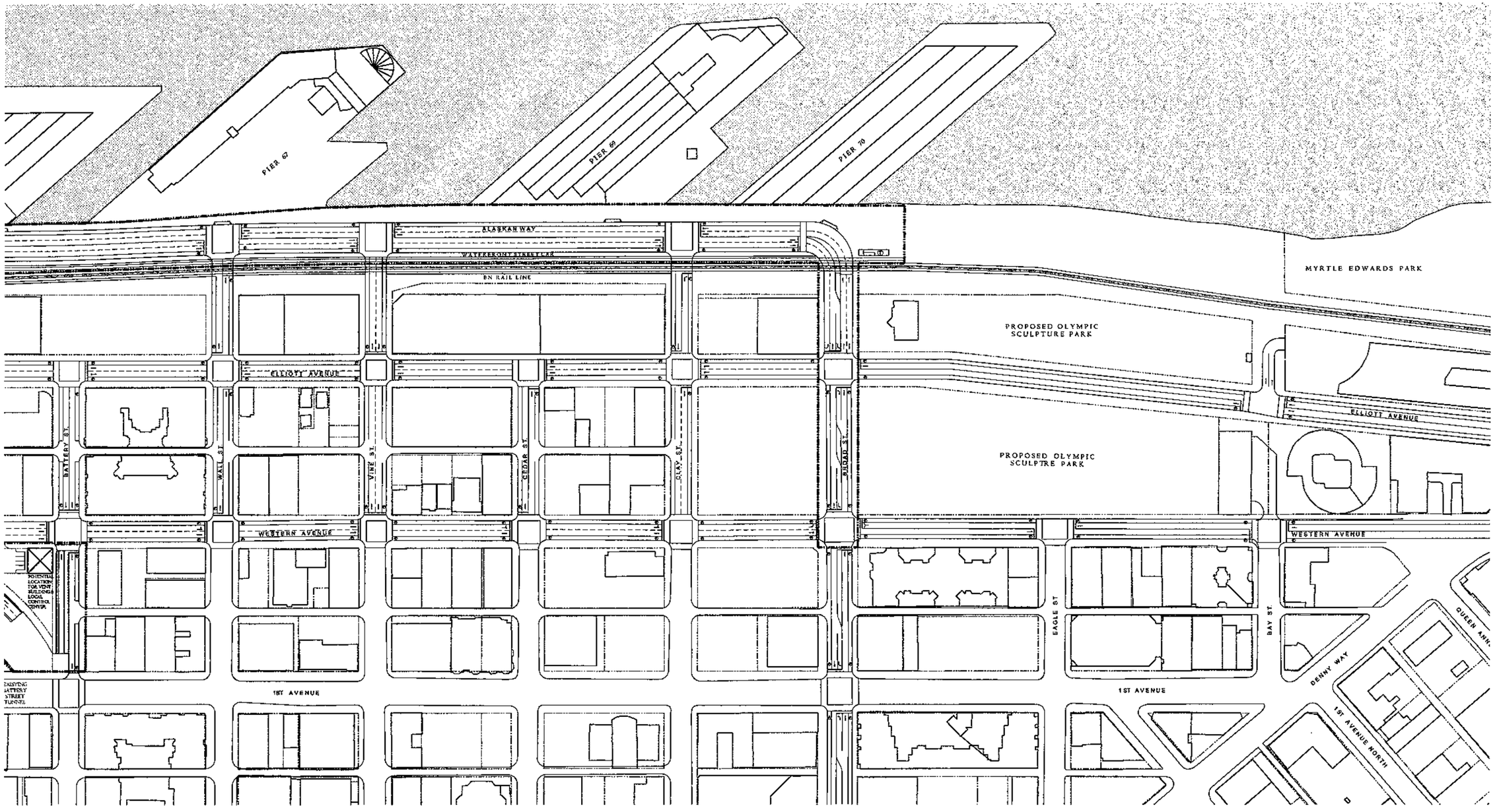
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
PIKE TO BATTERY STREET TUNNEL

FIGURE NO
R64

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG



NOTE:
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0 100 200 ft

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

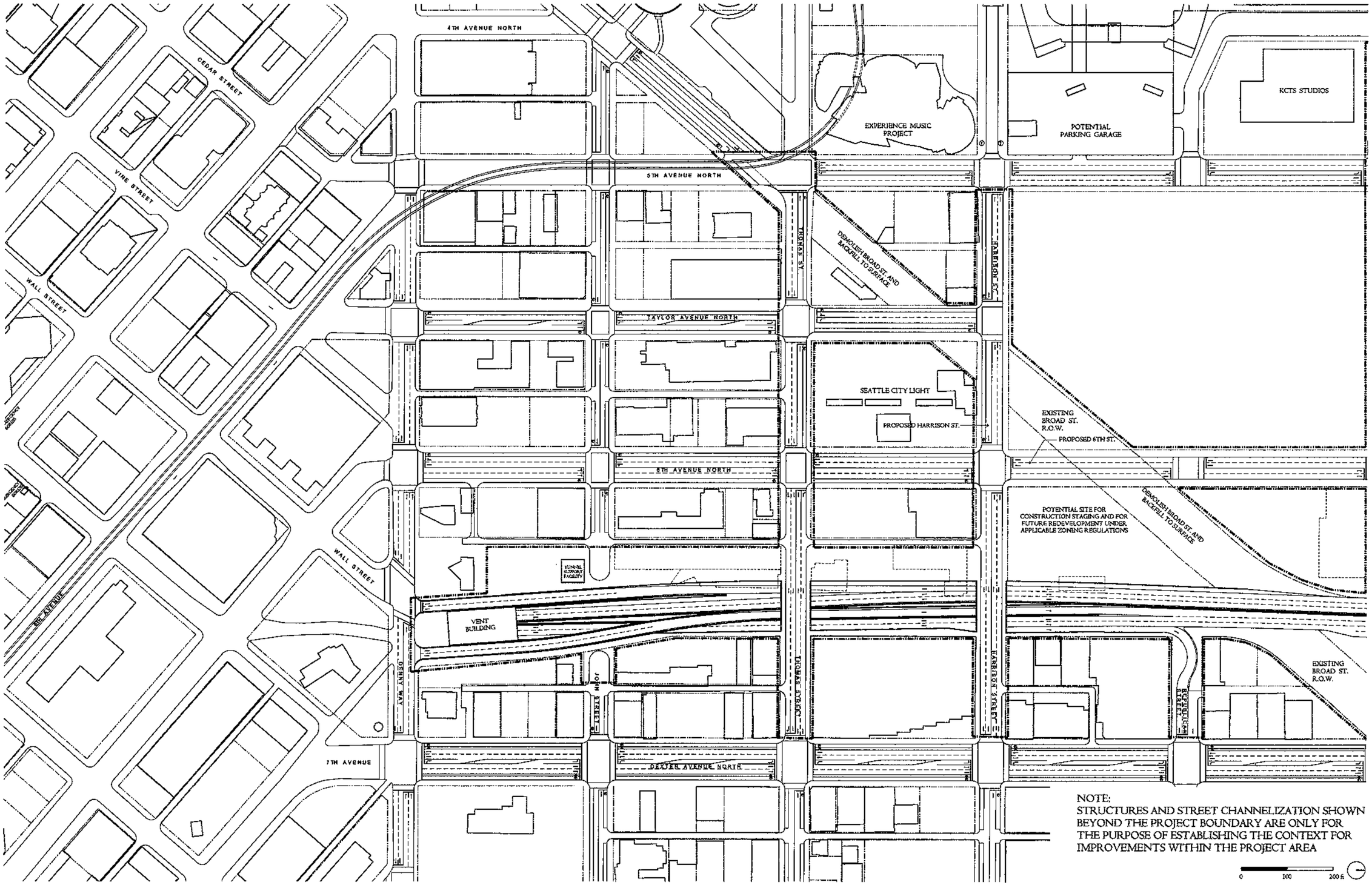
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH WATERFRONT
PIKE TO BROAD

FIGURE NO
R65

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\C4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SIDE BY SIDE\PLAN.DWG



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STRUCTURES AND STREET CHANNELIZATION SHOWN BEYOND THE PROJECT BOUNDARY ARE ONLY FOR THE PURPOSE OF ESTABLISHING THE CONTEXT FOR IMPROVEMENTS WITHIN THE PROJECT AREA

U.S. Department of Transportation
Federal Highway Administration

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City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - DENNY WAY TO REPUBLICAN

FIGURE NO
R66

PLOTTING DATE : 120705

FILENAME: ROMA DESIGN GROUP\C4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG

KCTS STUDIOS

58th AVENUE NORTH

TAYLOR AVENUE NORTH

59th AVENUE NORTH

DEMOLISH BROAD ST. AND BACKFILL TO SURFACE

EXISTING BROAD ST. R.O.W.

REPUBLICAN ST.

7th AVENUE

ROY ST.

1st AVENUE

ALOHA ST.

DEXTER AVENUE NORTH

WARD ST.

PROSPECT ST.

HIGHLAND DR.

COMSTOCK ST.

AURORA AVENUE NORTH

DEVELOPMENT OPPORTUNITY AREA

THE CONTINUATION OF A WIDENED TWO-WAY MERCER ST. EAST OF DEXTER IS NOT PART OF THIS PROJECT. IT IS ONE OF MANY OPTIONS BEING CONSIDERED BY THE CITY OF SEATTLE.

BROAD ST. DEMOLISHED AND BACKFILLED TO SURFACE AND CURBS OF ADJACENT STREETS RE-ESTABLISHED

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0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

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City of Seattle

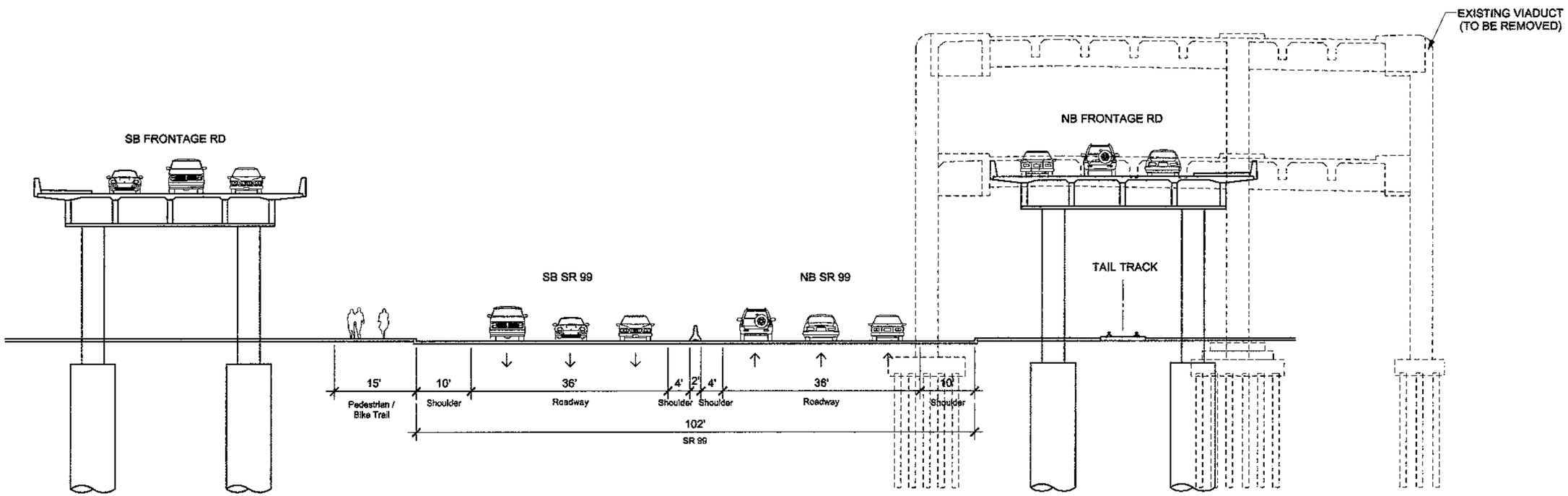
ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA

CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - NORTH
PARTIALLY LOWERED AURORA - REPUBLICAN TO ALOHA

FIGURE NO
R67

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\PLAN.DWG



A
R61

SECTION AT S. ATLANTIC ST.

0 5 10 20 ft

PLOTTING DATE - 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

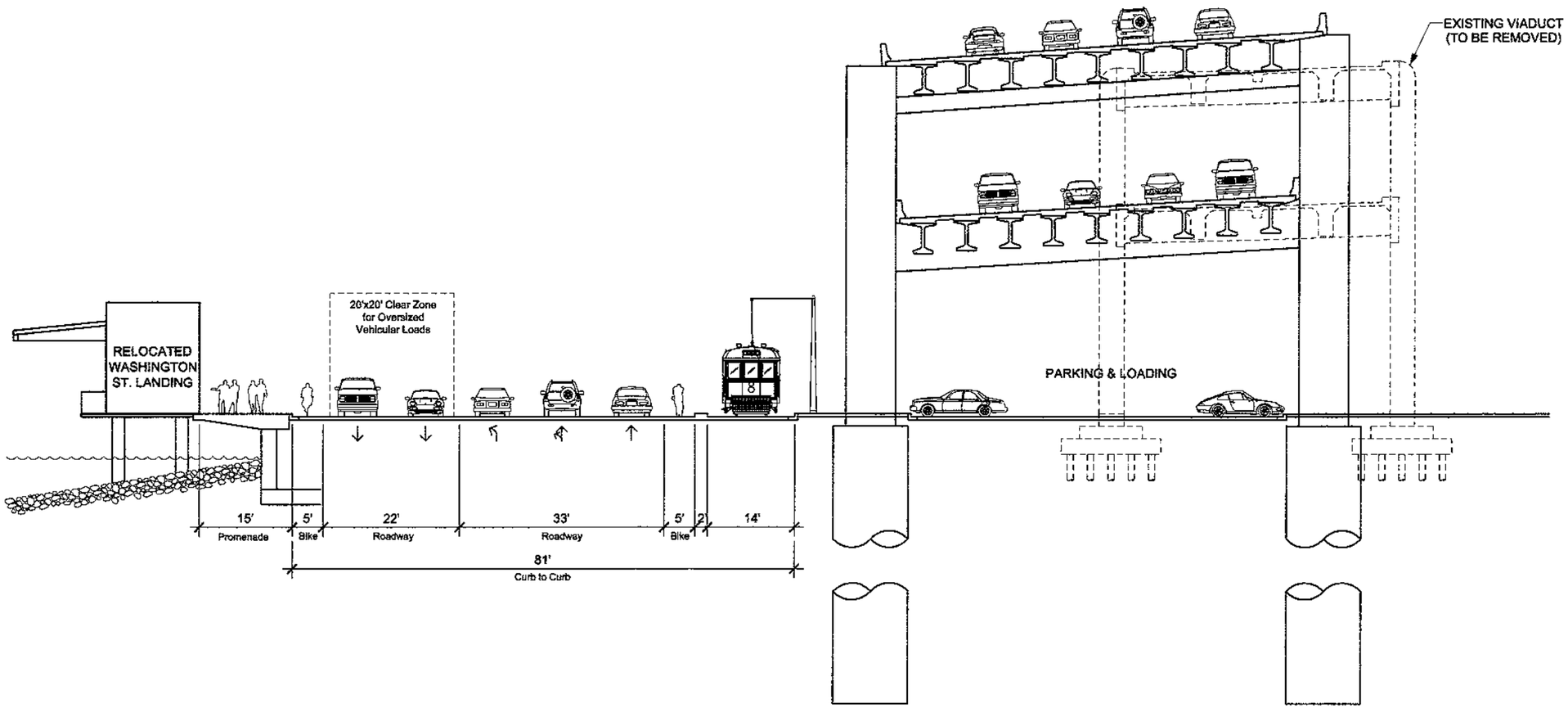
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - SOUTH
SECTION A

FIGURE NO
R70

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\REBUILD\SECTION.DWG



B
R62

SECTION AT WASHINGTON ST.

0 5 10 20 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State
Department of Transportation

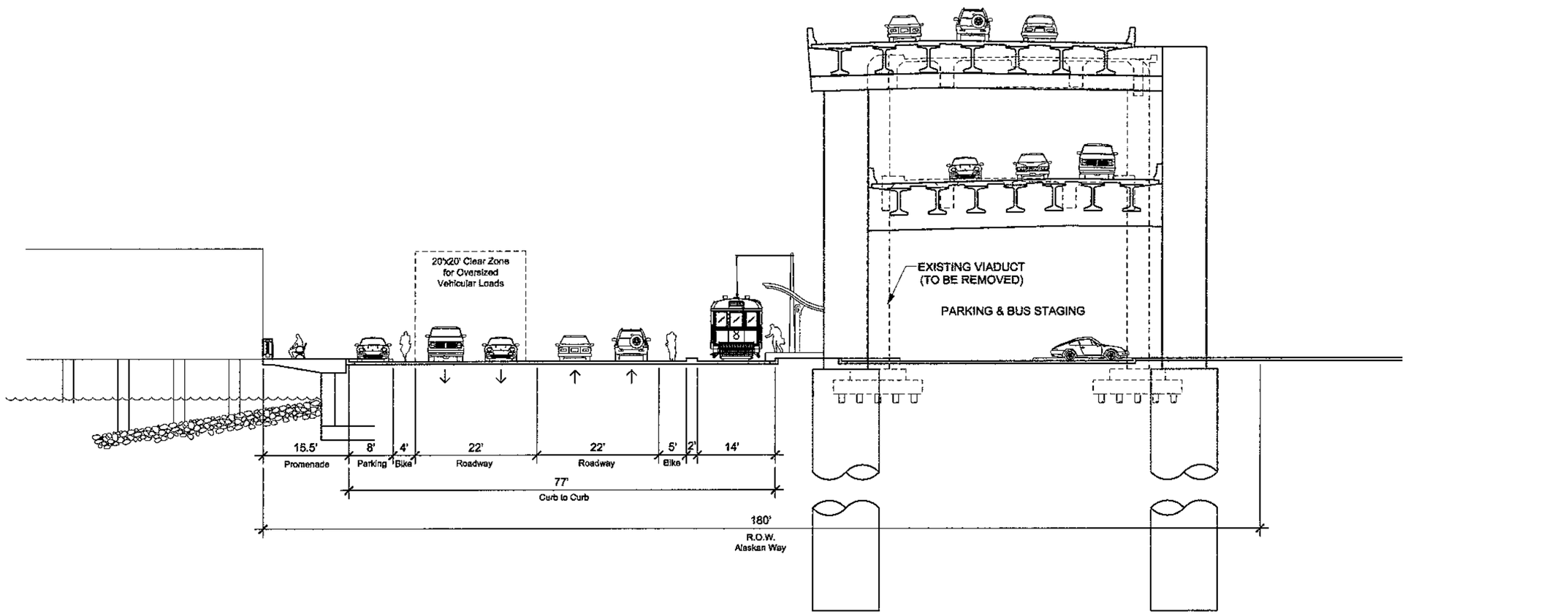
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
SECTION B

FIGURE NO
R71

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



C
R63

SECTION AT UNIVERSITY ST.

0 100 200 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

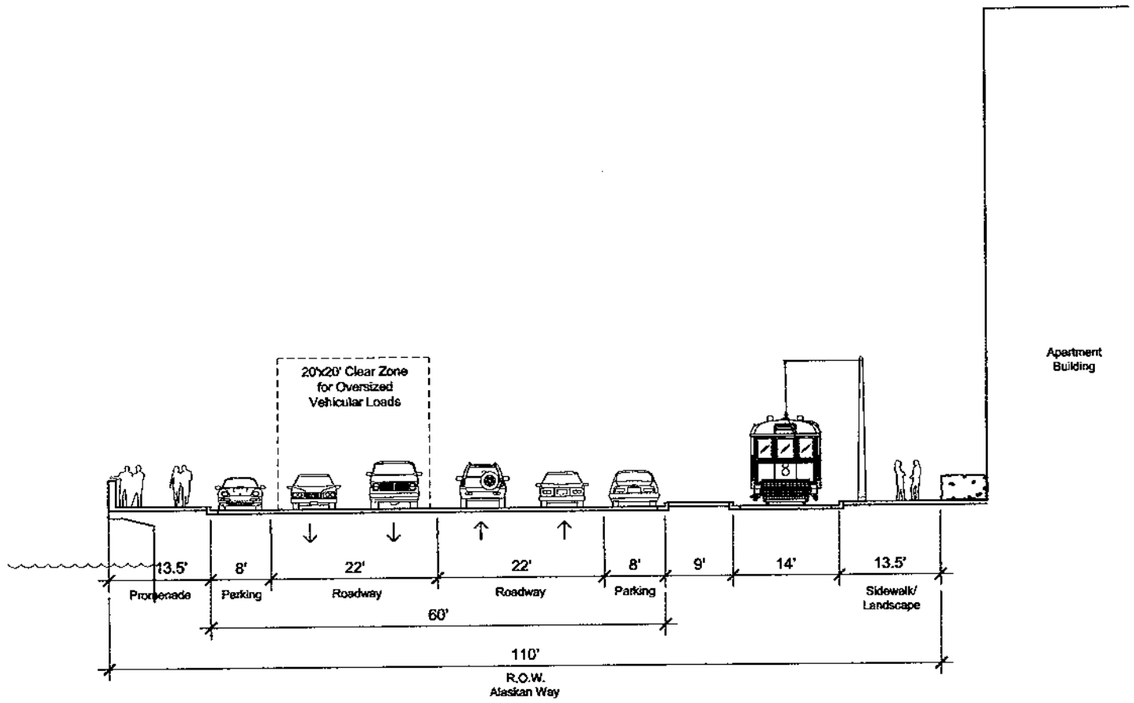
City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
SECTION C

FIGURE NO
R72

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG



D
R64

SECTION AT PIER 62/63

0 5 10 20 ft

PLOTTING DATE : 120705

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

City of Seattle

ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROJECT
SEATTLE, WA
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

REBUILD ALTERNATIVE - CENTRAL
SECTION D

FIGURE NO
R73

FILENAME: ROMA DESIGN GROUP\G4\PROJECTS\1273 SEATTLE AWV\ACAD\SHEETS\TUNNEL\SECTION.DWG