

# I-84 Danbury Project

## Project Advisory Committee (PAC) Meeting No. 6

May 26, 2021





# Welcome / Providing Feedback

## Presenters (in order)



**Yolanda Antoniak**  
**CTDOT**  
Project Engineer



**Sharat K. Kalluri**  
**CDM Smith**  
Project Manager



**Ray Culver**  
**CDM Smith**  
Project Engineer



**Jeanine Armstrong Gouin**  
**SLR Consulting**  
Environmental Documentation



**Andy Fesenmeyer**  
**CTDOT**  
Project Manager

## Moderator



**Marcy Miller, AICP (FHI)**

# Housekeeping Items

- Meeting is live and recorded
- Meeting presentation is posted to the project website at [http://www.i84danbury.com/course\\_cat/public-advisory-committee/](http://www.i84danbury.com/course_cat/public-advisory-committee/)
- Participants can video conference in or call in via phone and follow along to presentation posted on web
- Participants should mute themselves when not speaking
- At select times during meeting, moderator will read questions / comments out loud for speaker to answer or will ask interested participants to unmute and provide comments
- Meeting recording will be posted to project website after meeting





07:47

Request control

8 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

1-84 Danbury Project

storymaps.arcgis.com/stories/025a1ba51544828852e6855e6d5d02

1-84 Danbury Project

Edit story

## I-84 Danbury Project

Project Advisory Committee Meeting No. 5

Locations of these controls may be different depending on the device and screen you are using

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. J. McMillan, Mark J. J. Murphy, Lynn D. J. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.

9:11 AM 10/22/2020



Video on / off

Mic on / off

The screenshot shows a video player interface. At the top, there is a dark control bar with a 'Request control' button, icons for participants, chat, hand, and a menu, and buttons for video (highlighted with a green box), microphone (highlighted with a blue box), and a 'Leave' button. Above the video button is a green callout 'Video on / off', and above the microphone button is a blue callout 'Mic on / off'. Below the control bar is a browser window showing a video player with a 'Paused' button. The video frame displays a landscape with the text 'I-84 Danbury Project' at the bottom. A green callout box in the center of the video frame contains the text: 'Locations of these controls may be different depending on the device and screen you are using'.

Request control

055cbd0d2

Project

Edit story

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I-84 Danbury Project

Paused

Leave



07:47

Request control

Turn on participant list

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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Patrick Gallagher

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PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. J. McMillan, Mark J. J. Murphy, Lynn D. J. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.



08:39

Request controls

Turn on participant list

**I-84 Danbury Project**  
Project Advisory Committee Meeting No. 5  
November 16, 2020

Participants

Invite someone or dial a number

In this meeting (11)

Mute all

- Marcy Miller
- Calabrese, Michael N  
Outside your organization
- Doyle, Thomas H  
Outside your organization
- Fesenmeyer, Andy A.  
Outside your organization
- Gaffey, Timothy J.  
Outside your organization
- Jeanine Gouin  
Outside your organization
- Kalluri, Sharat K  
Organizer  
Outside your organization
- McMillan, Mark J.  
Outside your organization
- Murphy, Lynn D.  
Outside your organization
- Patrick Gallagher  
Outside your organization
- Sousa, David  
Outside your organization

PG TG TD MM LM DS AF JG SK MC

Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K Calabrese, Michael N.

Type here to search

9:08 AM 10/22/2020





07:47

Request control

Turn on chat pane

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

Locations of these controls may be different depending on the device and screen you are using

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.



07:47

Request control

80

Leave

Turn on chat pane

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Type your question/comment here

Submit here

That's a really great comment!

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. J.

McMillan, Mark J.

Murphy, Lynn D.

Sousa, David

Fesenmeyer, Andy A.

Jeanine Gouin

Kalluri, Sharat K.

Calabrese, Michael N.



07:47

Request control

Raise your hand

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.



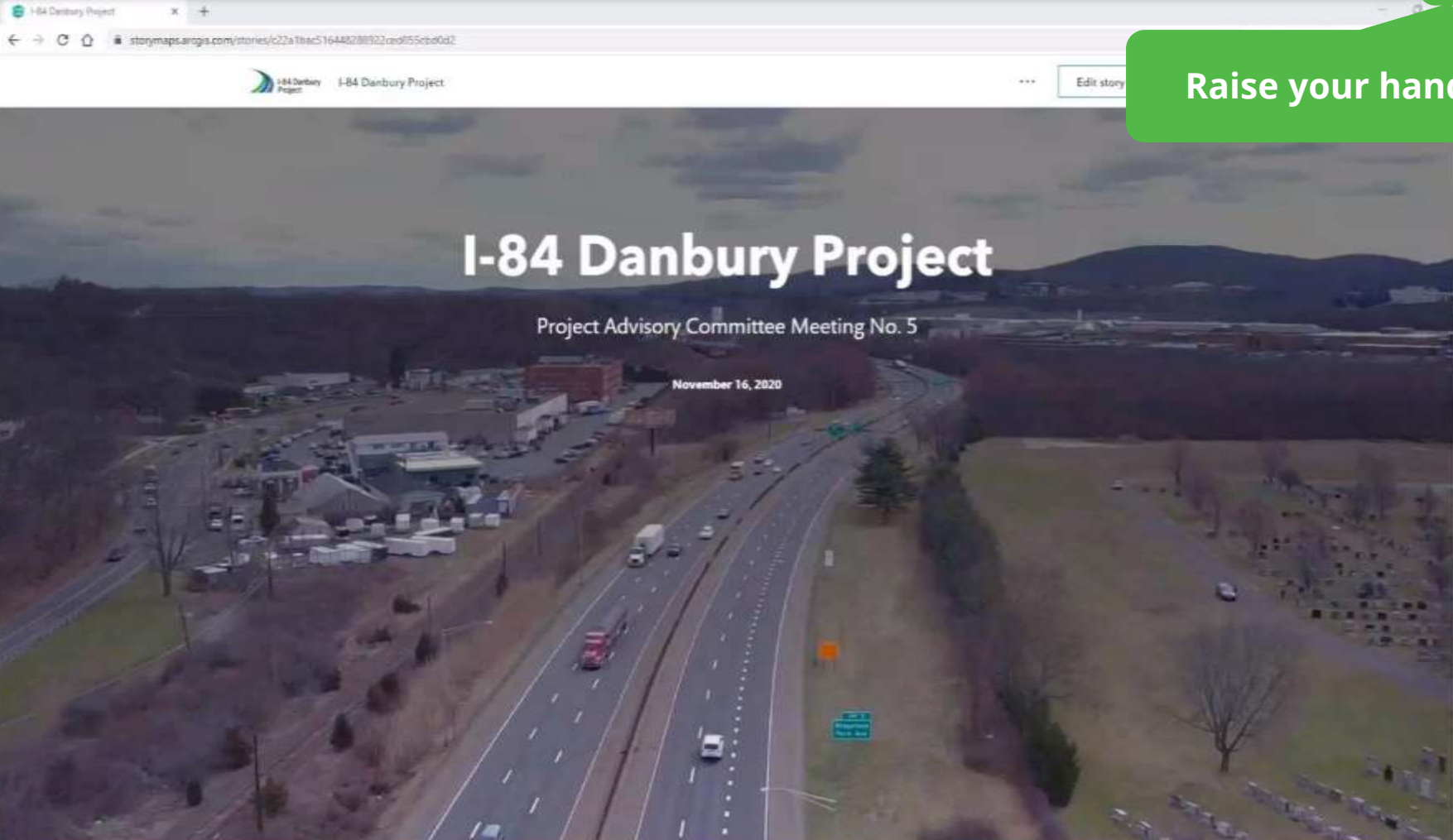


10:24

Request control



Leave



Raise your hand

## Participants

Invite someone or dial a number

In this meeting (11)

Mute all



Marcy Miller



Calabrese, Michael N  
Outside your organization



Doyle, Thomas H  
Outside your organization



Fesenmeyer, Andy A.  
Outside your organization



Gaffey, Timothy J.  
Outside your organization



Jeanine Gouin  
Outside your organization



Kalluri, Sharat K  
Organizer  
Outside your organization



McMillan, Mark J.  
Outside your organization



Murphy, Lynn D.  
Outside your organization



Patrick Gallagher  
Outside your organization



Sousa, David  
Outside your organization



Patrick Gallagher

Type here to search







07:47

Request control

Other functions

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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Doyle, Thomas H. Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.



# I-84 Danbury Project



10:24

Request control



Device settings

Meeting details

Gallery

Large gallery (Preview)

Together mode (Preview)

Focus

Full screen

Call me

Apply background effects

Turn on live captions

Start recording

Dial pad

Turn off incoming video

Other functions

## I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Patrick Gallagher

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PG

TG

TD

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JG

SK

MC

Murphy, Lynn D.

Sousa, David

Fesenmeyer, Andy A.

Jeanine Gouin

Kalluri, Sharat K

Calabrese, Michael N.



# Questions



# Agenda

- PAC Update
- Concept Evaluation
  - ✓ Concept #2 – CD Road - Center
  - ✓ Concept #6 – Interchanges 3 & 4 Segar Street Ramp Eastbound
  - ✓ Concept #9 – Route 7 Median – Mainline
  - ✓ Concept #7 – Tunnel – West
- Upcoming Concepts
- Next Steps
- Discussion/Questions





# PAC Update

## Since our last meeting.....

- Attended Chamber of Commerce Leadership Meeting
- Published Fall Newsletter
- Launched Concepts Page on the website
- Continuing to create social media content



[www.i84danbury.com](http://www.i84danbury.com)



I-84 Danbury Project



@i84danbury

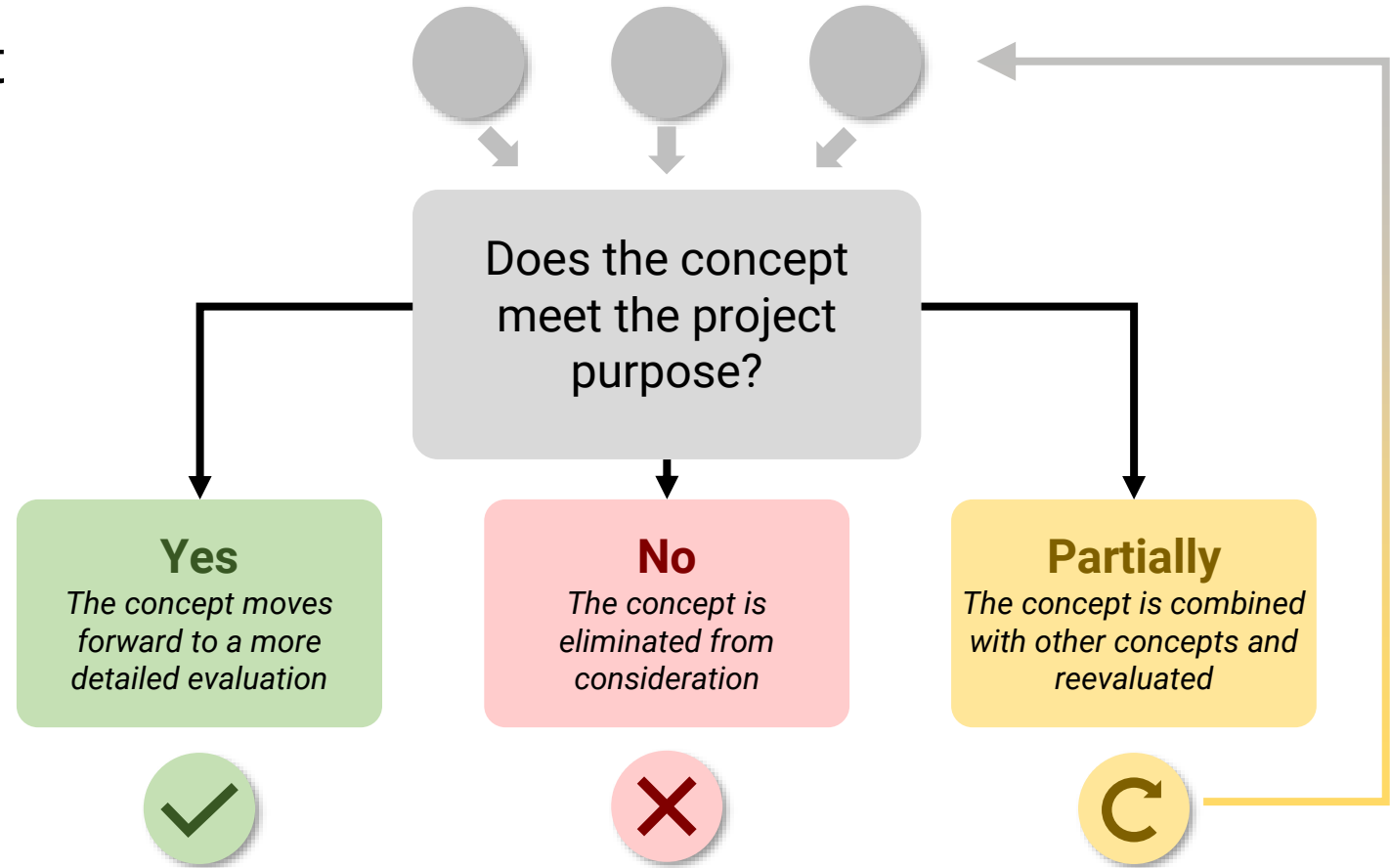
## Draft Purpose Statement:

The purpose of the I-84 Danbury Project is to reduce **congestion** and improve the **mobility** of people and goods in the I-84 corridor in greater Danbury.

# How will the Project Purpose be used?

1. Concept Development

2. Concept Evaluation







## Concepts Location Map

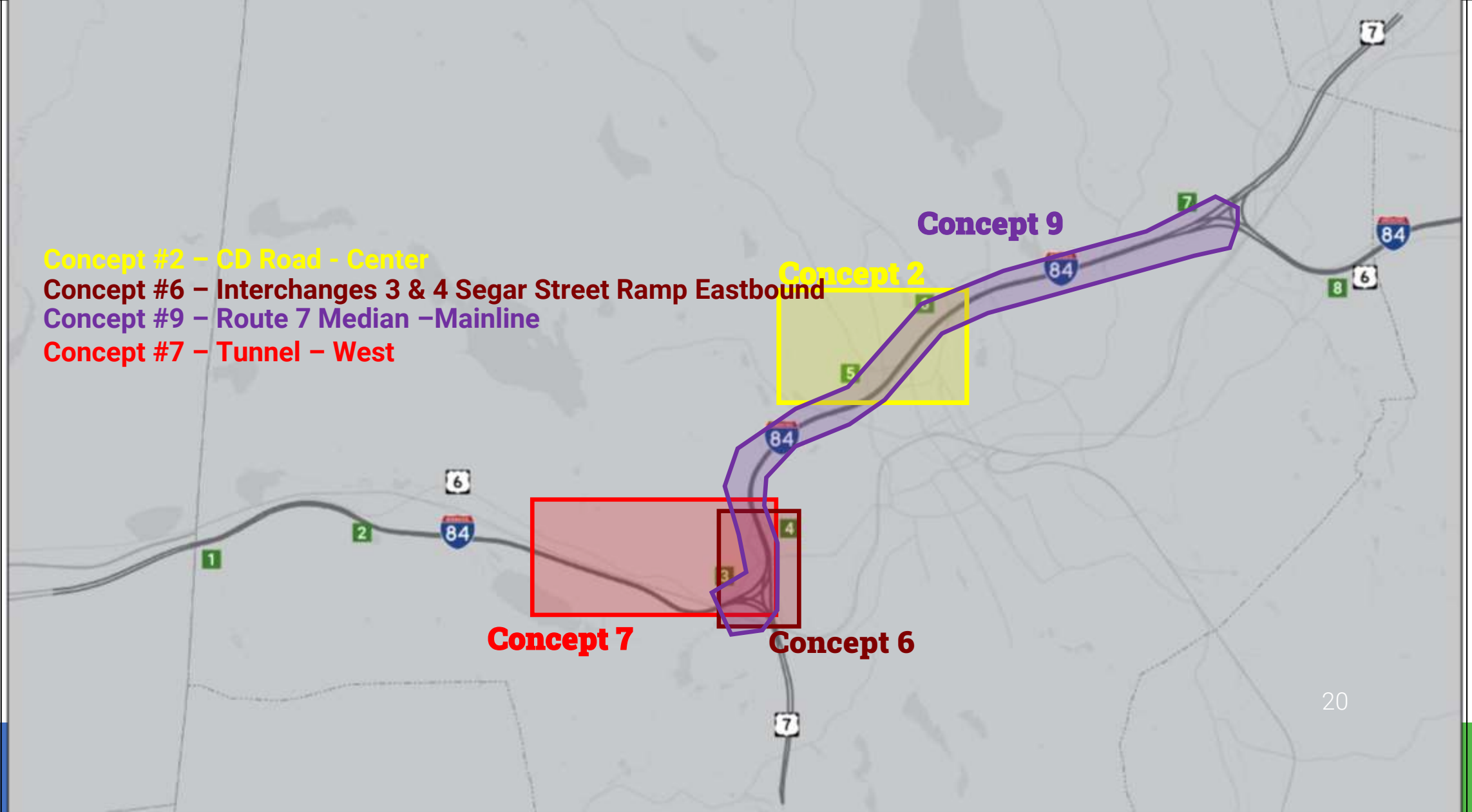


**Concept #2 – CD Road - Center**

**Concept #6 – Interchanges 3 & 4 Segar Street Ramp Eastbound**

**Concept #9 – Route 7 Median –Mainline**

**Concept #7 – Tunnel – West**





# Concept Evaluation

# Evaluating the Concept

- Traffic operations
- Effects to mainline I-84
- Key constructability elements
- Environmental resource analysis
- Construction cost estimate

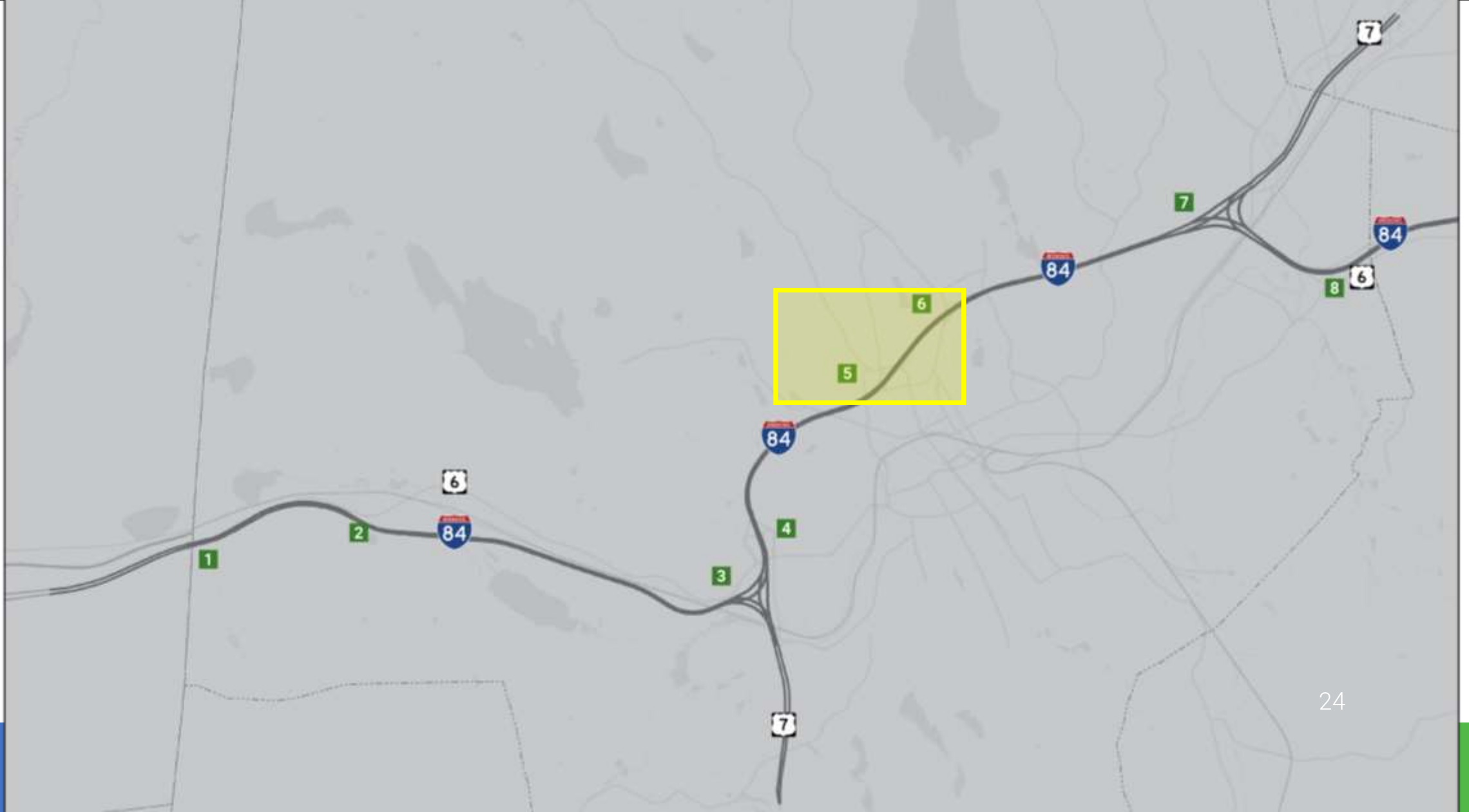


# Concept 2 CD Road- Center



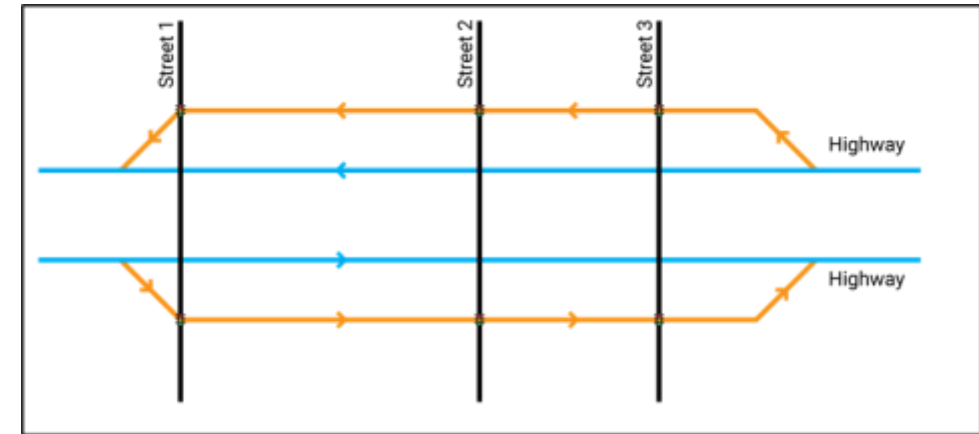


## Concept Location Map



## Concept 2 - Overview

- Collector Distributor (CD) Road is provided parallel to I-84.
- About one third of the traffic is local in the project corridor.
- Connections to Main Street, North Street, and Tamarack Avenue.
- Access to the Danbury Hospital and Downtown.
- Opportunities to enhance pedestrian and bicycle use.

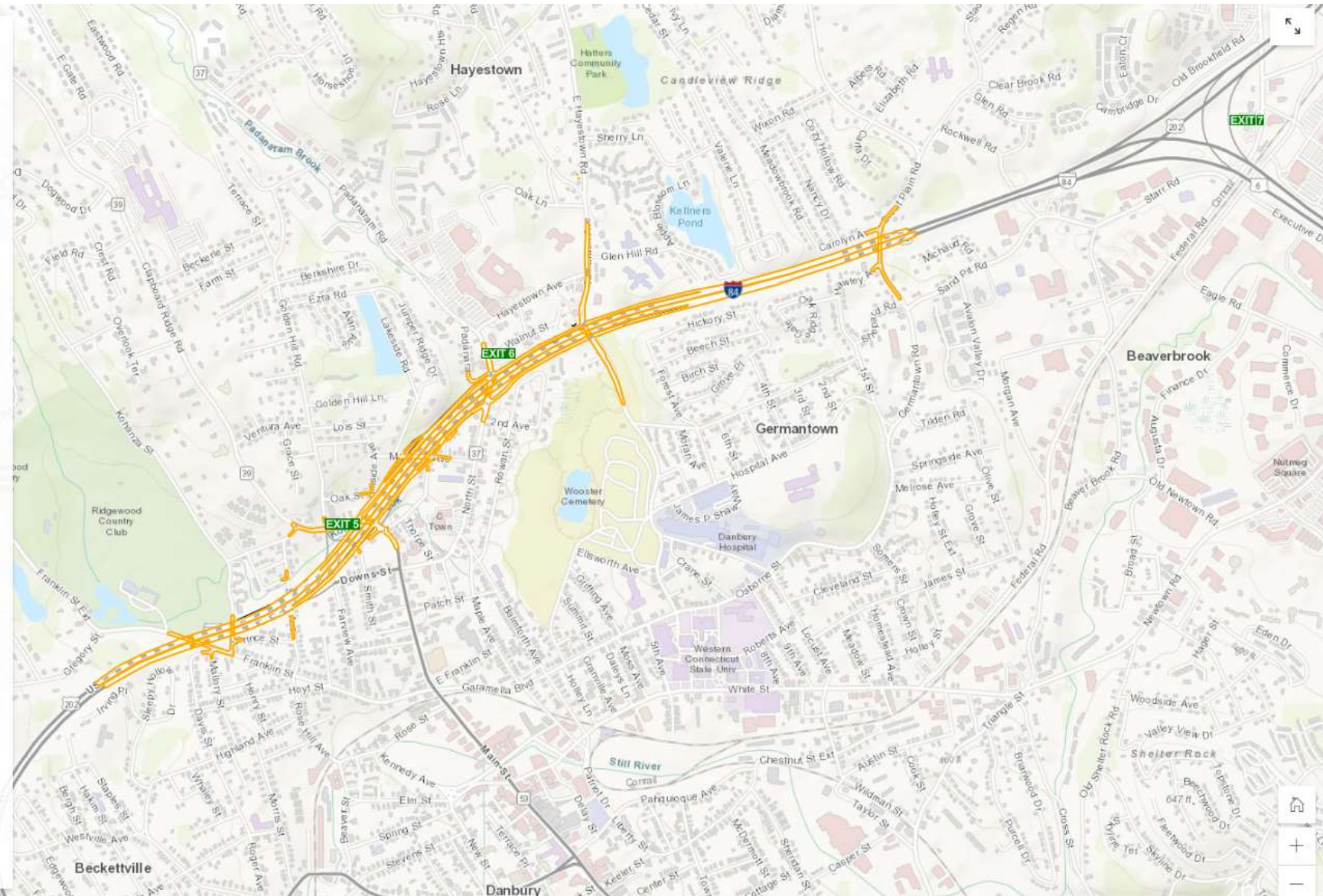
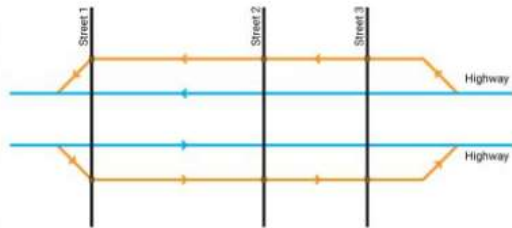


Collector Distributor Roads



## C2: CD Road - Center

1. CD Road is approximately 1.5 miles in length in the eastbound direction and will begin east of Interchange 4 (Lake Avenue) and end east of Tamarack Avenue to merge onto I-84.
2. CD Road is approximately 1.3 miles in the westbound direction and will begin east of Tamarack Avenue and end west of Main Street and merge onto I-84.
3. CD Road will be a one-way pair parallel to I-84 and will consist of two travel lanes in each direction.
4. CD Road will have at-grade intersections with Main Street, North Street, and Tamarack Avenue.
5. CD Road will be grade separated at Madison Avenue, but ramps will be provided to/from the CD Road and Madison Avenue.
6. I-84 will remain three lanes in each direction.

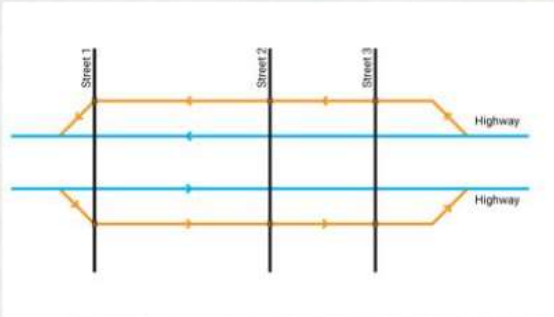






### Main Street

1. Main Street will consist of a five-lane cross section between the directional CD Roads.
2. Traffic signals will be provided at each of the CD Road intersections.
3. The Golden Hill Road approach to Main Street will be closed and the intersection will be eliminated.
4. The Golden Hill Road traffic can use the Madison Avenue connection to access the CD Road and I-84.





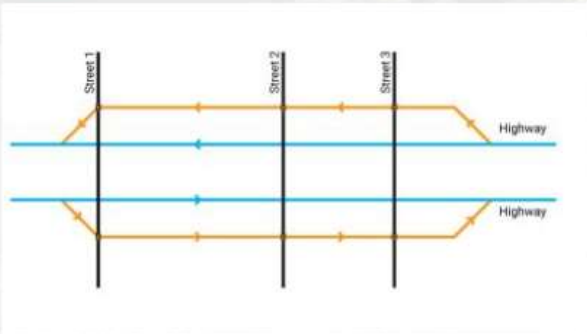


# Concept 2 StoryMap



## North Street

1. North Street will consist of a four-lane cross section between the CD Roads.
2. Traffic signals will be provided at each of the CD Road intersections

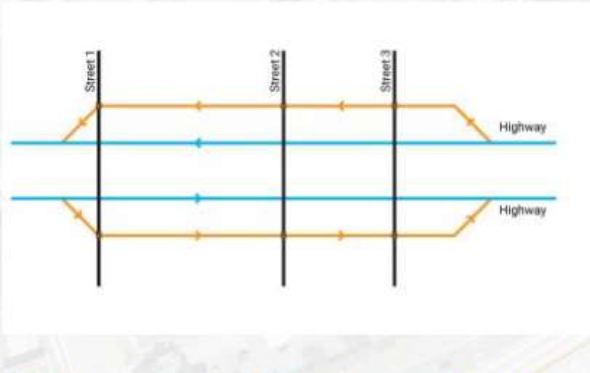






## Tamarack Avenue

1. Tamarack Avenue will consist of a five-lane cross section between the CD Roads.
2. Traffic signals will be provided at each of the CD Road intersections.
3. Tamarack Avenue will have to be widened south of the eastbound CD Road from a two-lane to a five-lane cross-section.

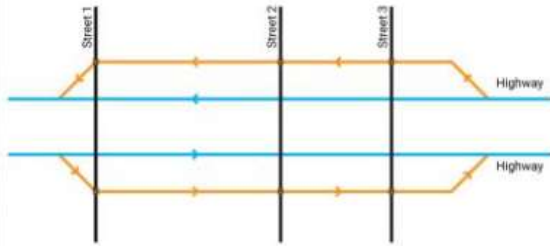






## Tamarack Avenue

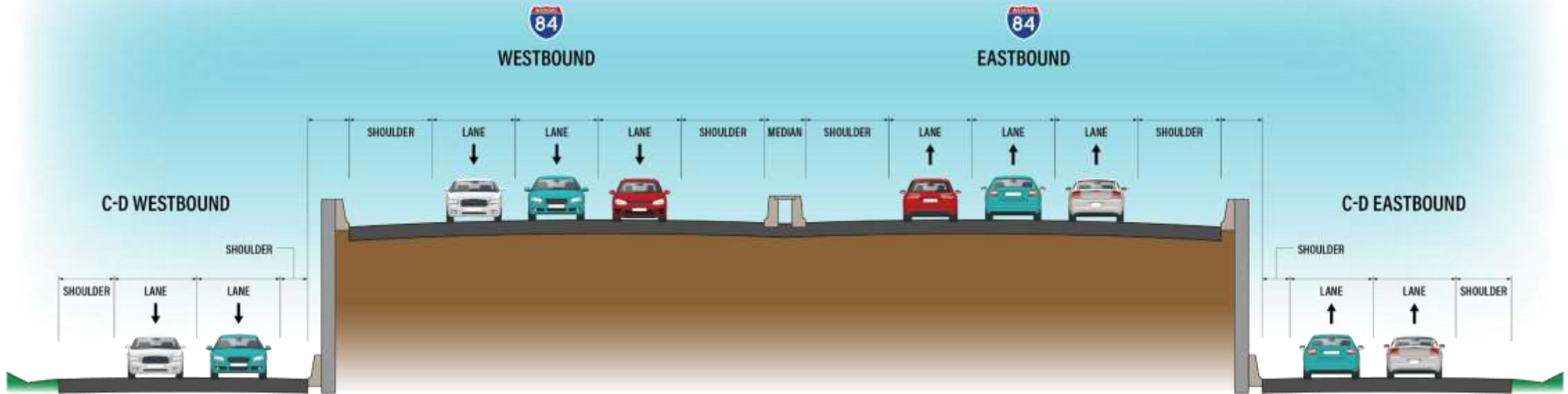
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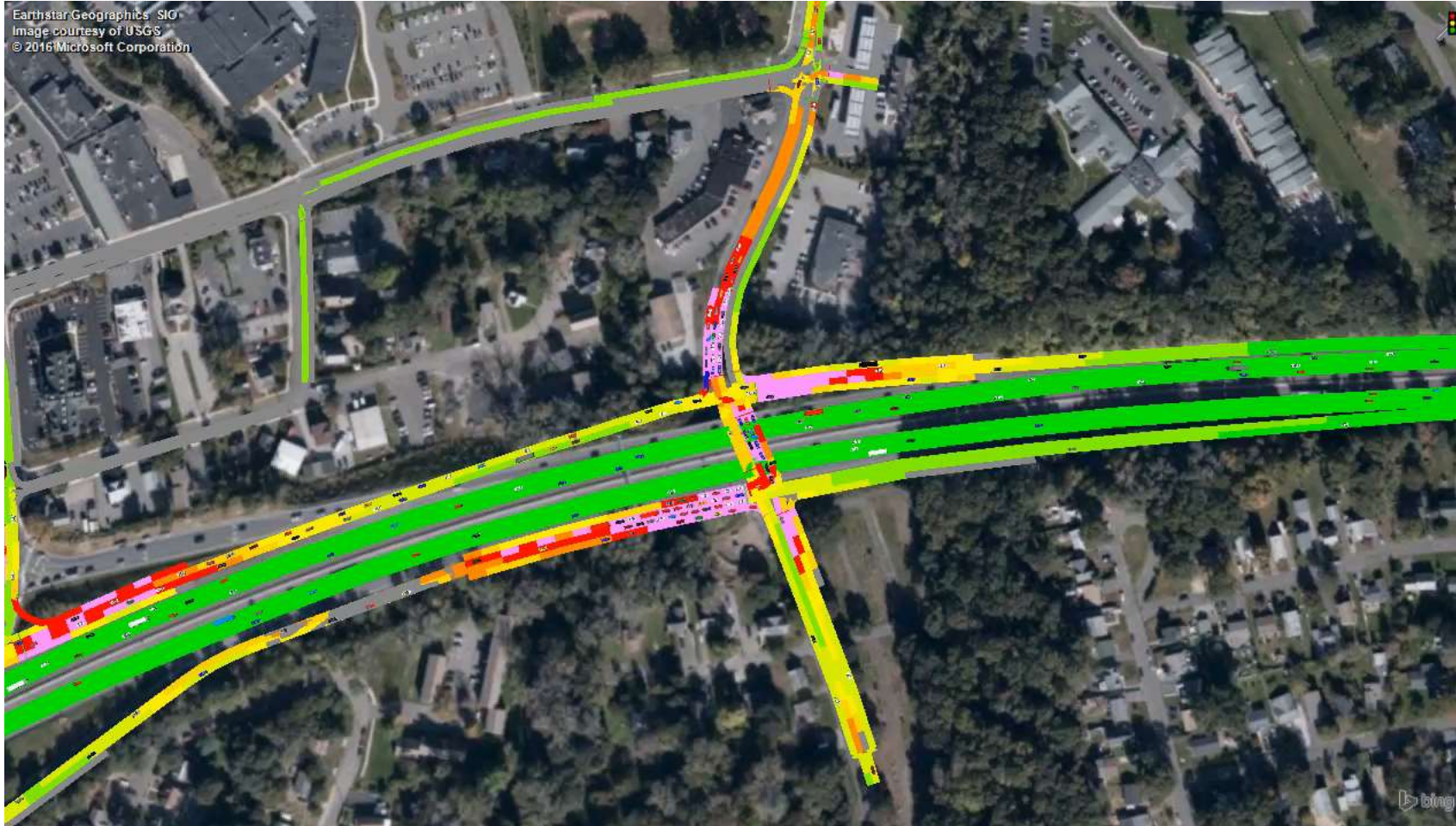


# Concept 2 Cross Section


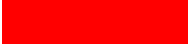











# Weekday A.M. Peak Period

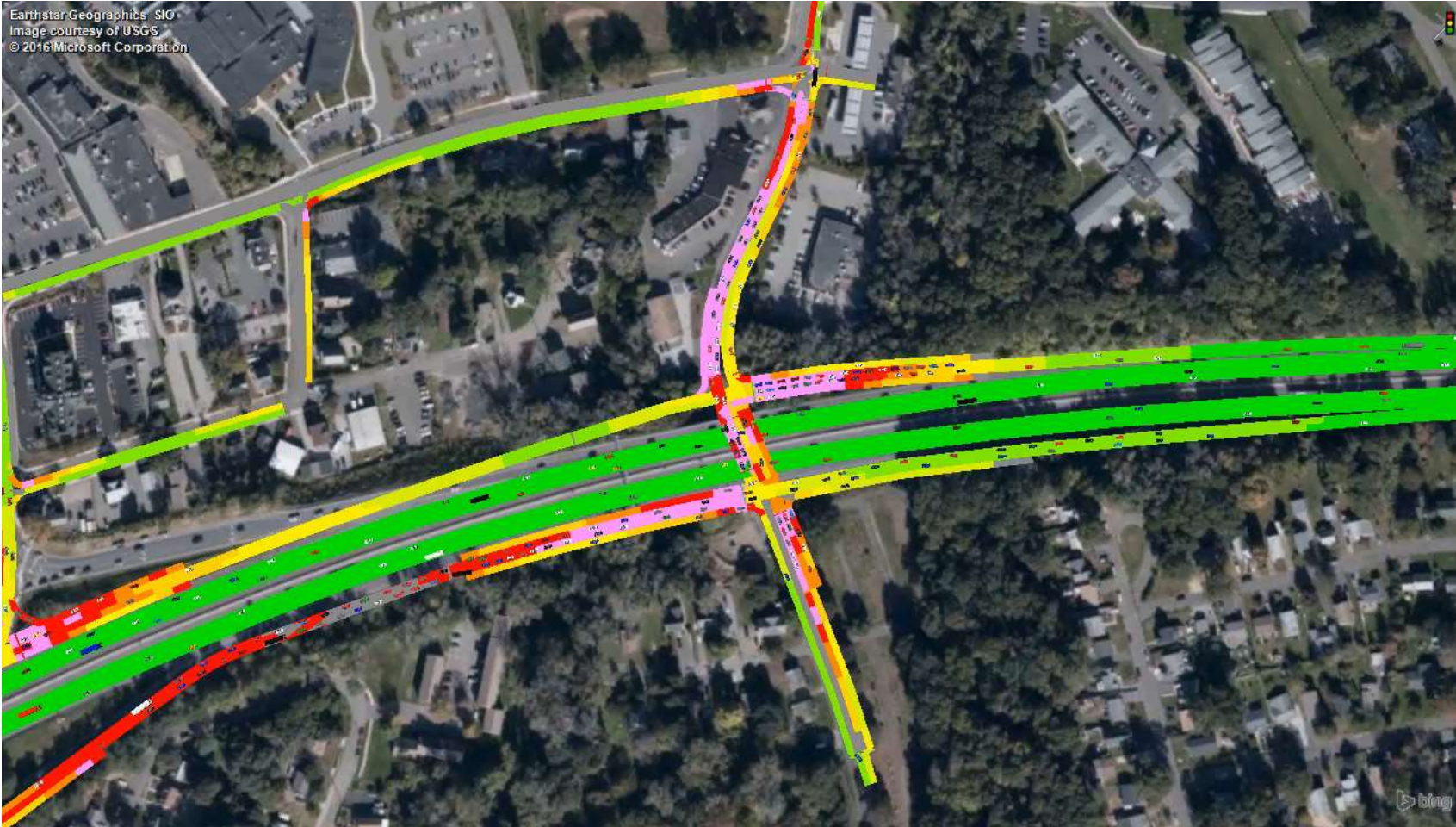


## Speed Distribution

| Min. | Max. | Color Code                                                                          |
|------|------|-------------------------------------------------------------------------------------|
| 0    | 5    |  |
| 5    | 10   |  |
| 11   | 20   |  |
| 21   | 25   |  |
| 26   | 30   |  |
| 31   | 40   |  |
| 41   | 50   |  |
| 51   | 60   |  |
| >60  |      |  |



# Weekday P.M. Peak Period

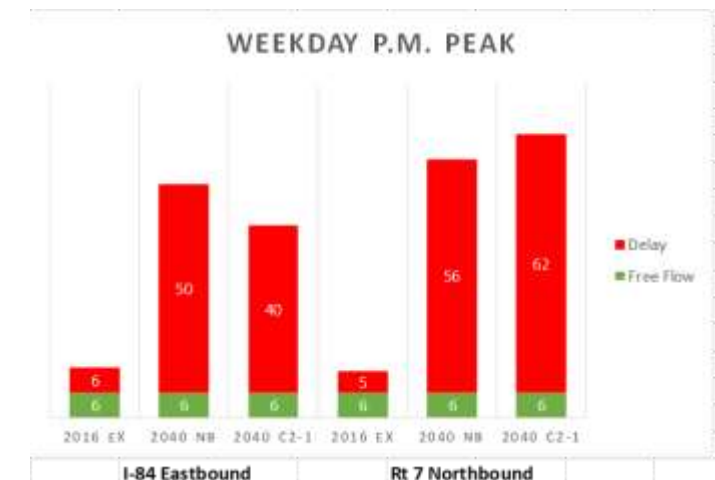
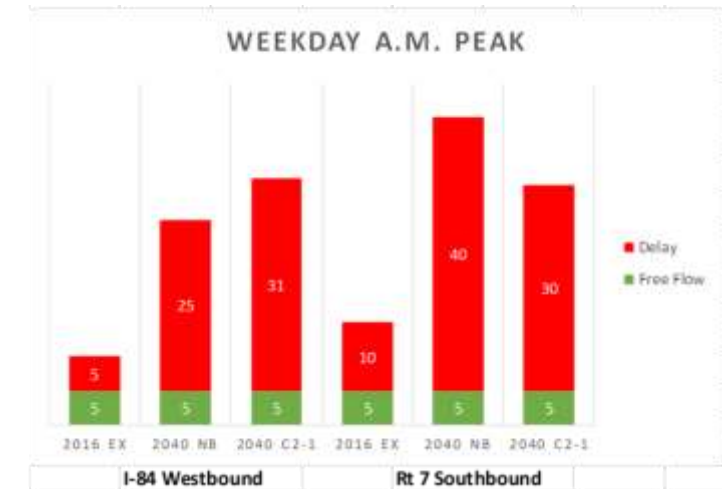


## Speed Distribution

| Min. | Max. | Color Code |
|------|------|------------|
| 0    | 5    |            |
| 5    | 10   |            |
| 11   | 20   |            |
| 21   | 25   |            |
| 26   | 30   |            |
| 31   | 40   |            |
| 41   | 50   |            |
| 51   | 60   |            |
| >60  |      |            |

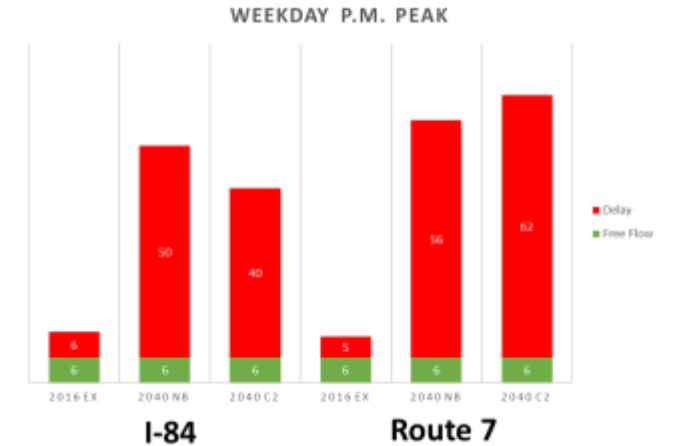
## Traffic Analysis Summary

- Reduces congestion on I-84 within concept limits.
- Increases congestion on I-84 outside of concept limits.
- Experiences congestion on CD Road during peak periods.
- Experiences congestion on local street intersections at Main St., North St., and Tamarack Avenue.
- Requires widening at local street intersections.



## PROS

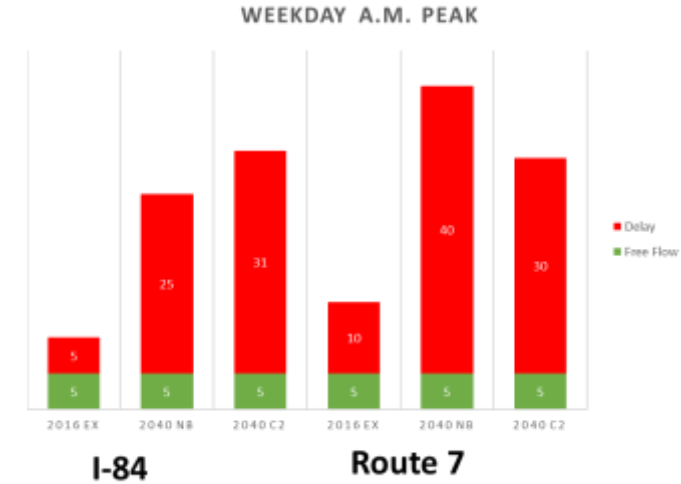
- + Reduces congestion on I-84 within concept limits.
- + Improves connection to the Danbury Hospital.
- + Improves connection to the downtown.
- + North Street and Tamarack Avenue have full access to I-84.
- + Opportunities to enhance pedestrian and bicycle use.





## CONS

- CD Road will experience some congestion and delay.
- Wide intersections.
- Construction will require multiple stages and phases.
- Right of way impacts.





# Construction Cost Estimate

| Cost Range                   | Rating     |
|------------------------------|------------|
| Less than \$0.5 billion      | \$         |
| \$0.5 billion to \$1 billion | \$\$       |
| \$1 billion to \$3 billion   | \$\$\$     |
| \$3 billion to \$5 billion   | \$\$\$\$   |
| Greater than \$5 billion     | \$\$\$\$\$ |

\*Note: The construction cost estimate is inflated to mid-point of construction not including right-of-way and engineering costs.

## Recommendation:

This concept has merit for reducing congestion and improving mobility on the highway within the concept limits and should be evaluated further in the next phase.



# Discussion/Questions

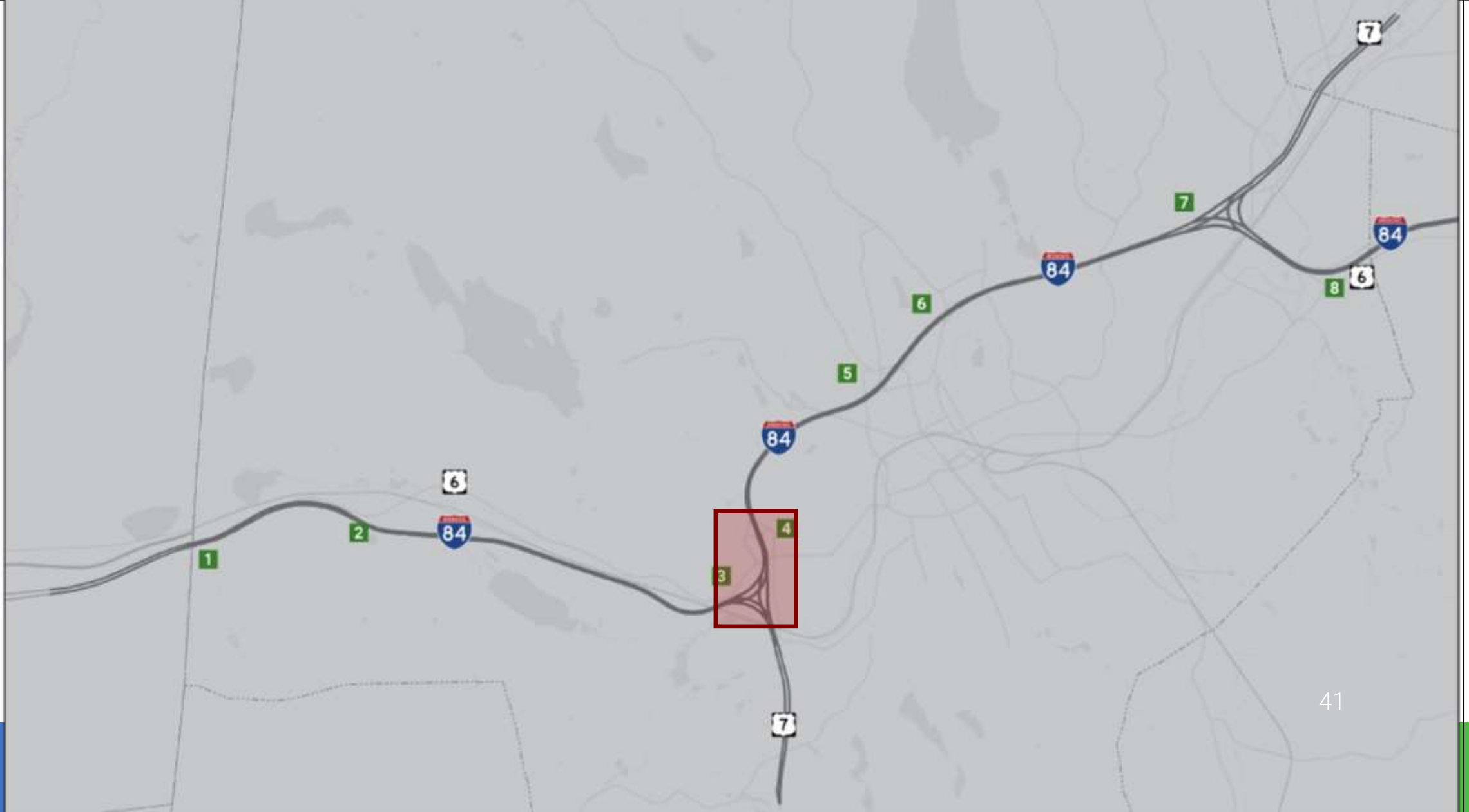




# Concept 6 Interchanges 3 and 4 – Segar Street - Eastbound

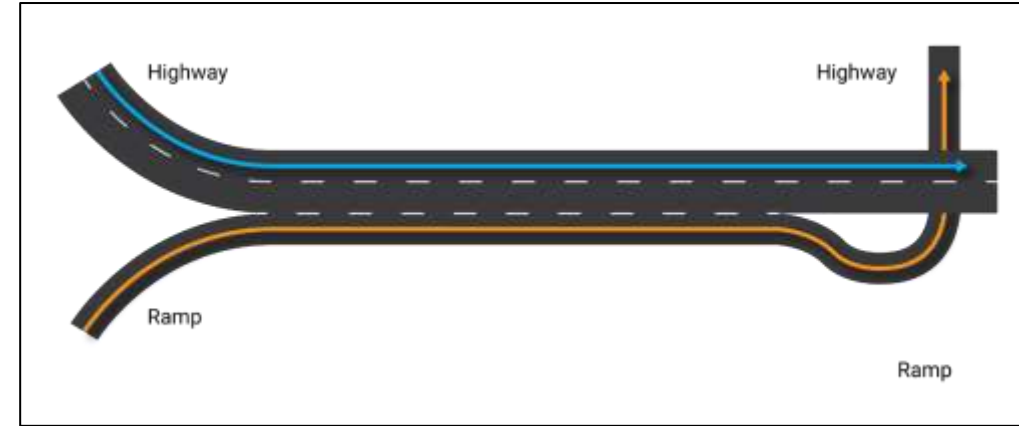


## Concept Location Map

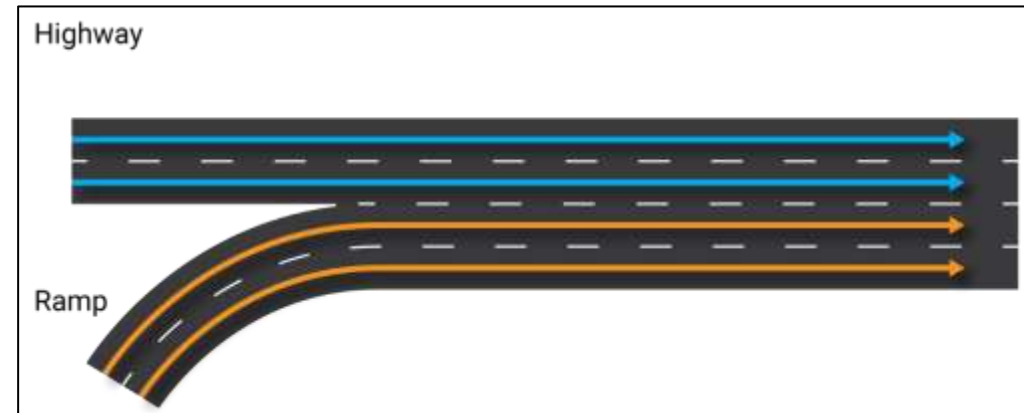


## Concept 6 - Overview

- Eliminates weave between Interchanges 3 and 4.
- Provides a connection to Segar Street from I-84.
- Provides lane continuity on Route 7.



Weaving

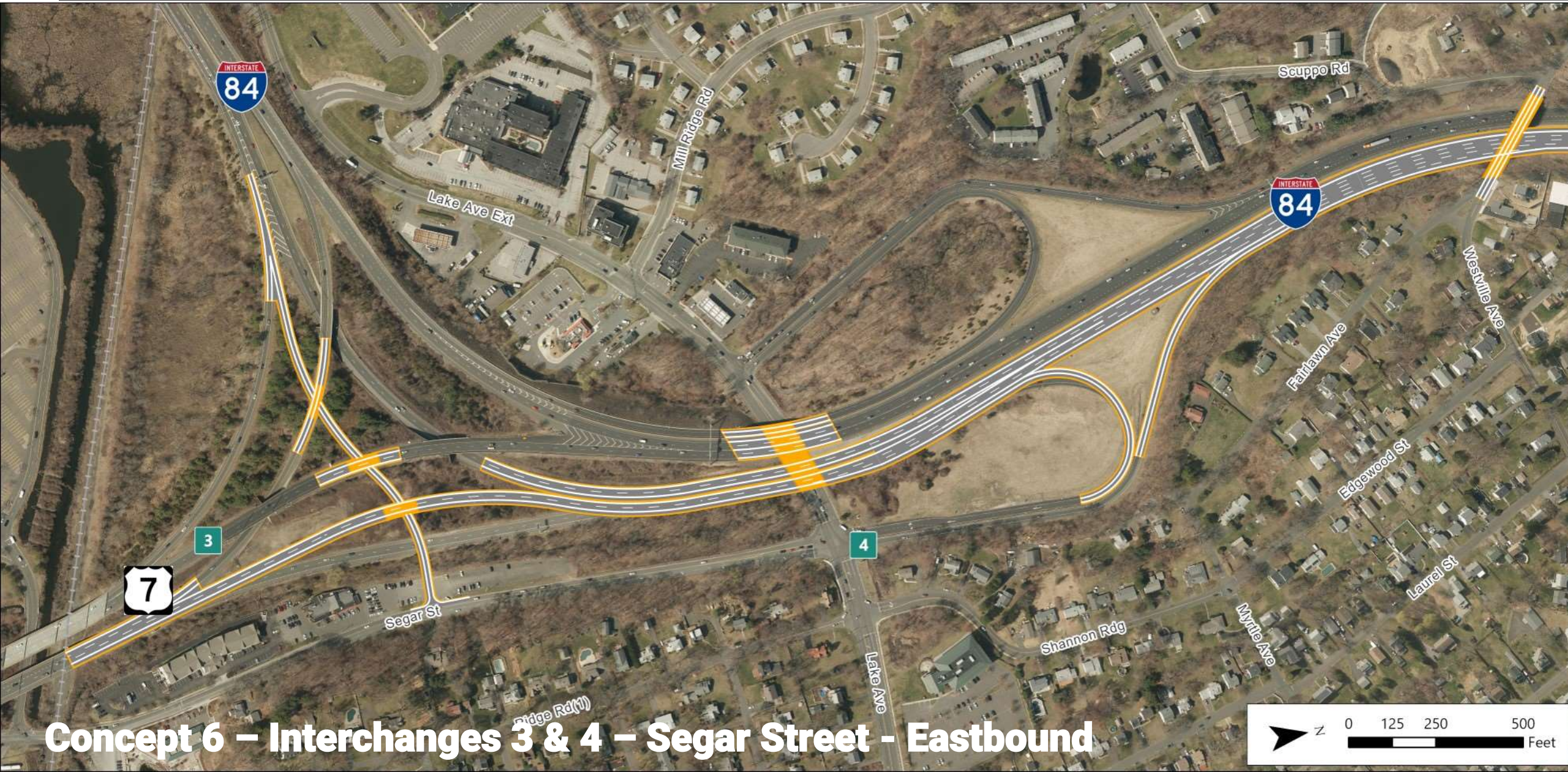


Lane Continuity





# I-84 Danbury Project



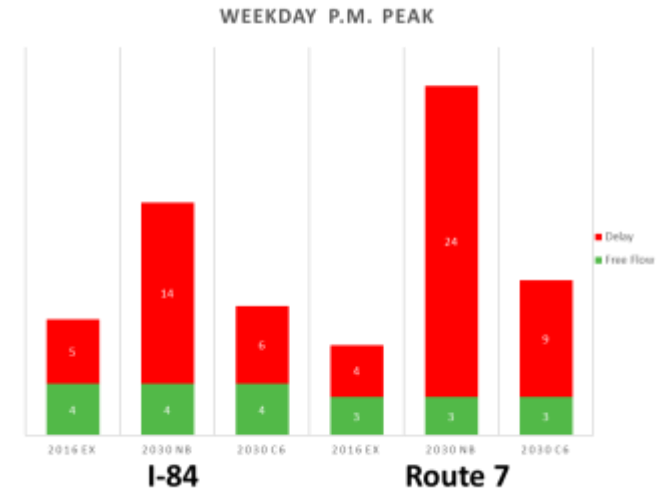
**Concept 6 – Interchanges 3 & 4 – Segar Street - Eastbound**





## PROS

- + Reduces congestion on I-84 and Route 7.
- + Eliminates weaving between I-84 and Lake Avenue.
- + Occurs mostly within existing CTDOT right-of-way.
- + Requires typical construction methods.
- + Minimal environmental impacts.





# Construction Cost Estimate

| Cost Range                   | Rating     |
|------------------------------|------------|
| Less than \$0.5 billion      | \$         |
| \$0.5 billion to \$1 billion | \$\$       |
| \$1 billion to \$3 billion   | \$\$\$     |
| \$3 billion to \$5 billion   | \$\$\$\$   |
| Greater than \$5 billion     | \$\$\$\$\$ |

\*Note: The construction cost estimate is inflated to mid-point of construction not including right-of-way and engineering costs.



## Recommendation:

This concept has merit for reducing congestion and improving mobility on the highway at Interchanges 3 and 4 and should be evaluated further in the next phase.



# Discussion/Questions

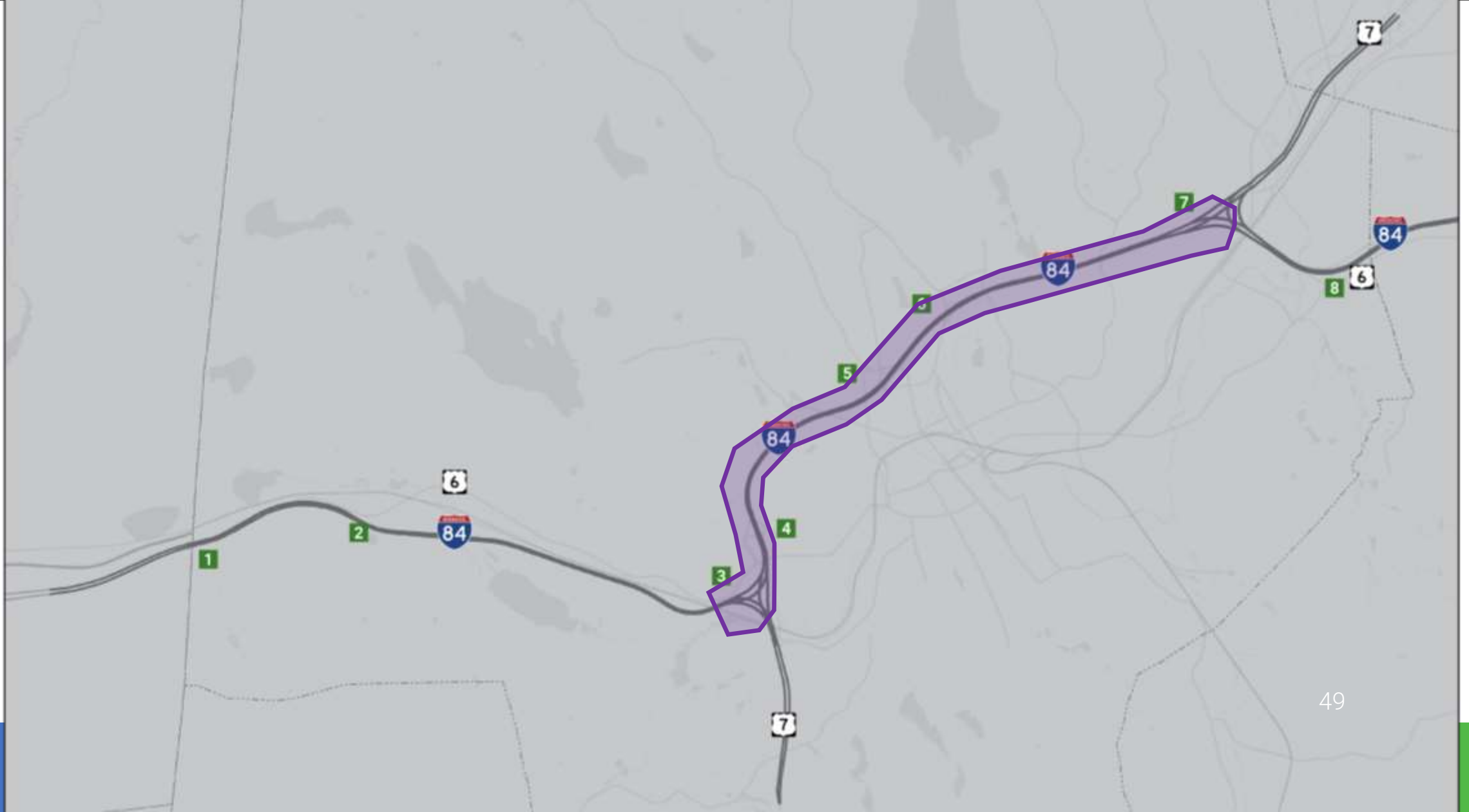


# Concept 9 Route 7 Median - Mainline



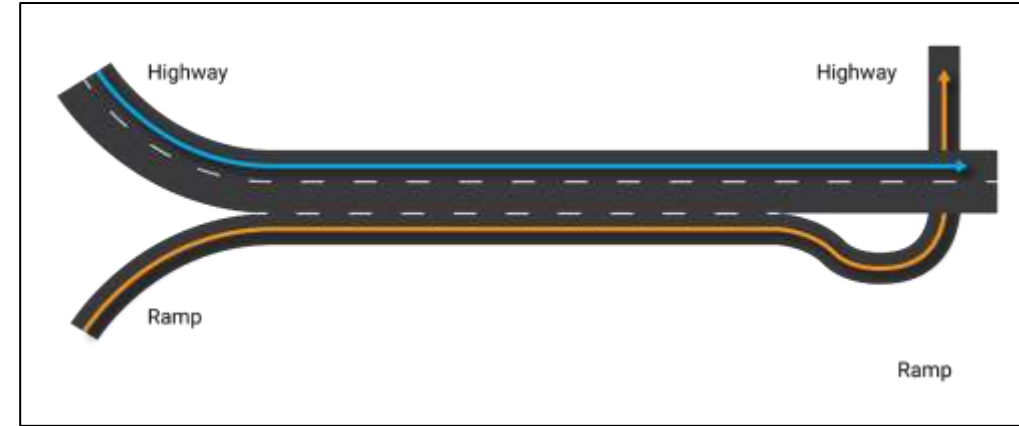


## Concept Location Map

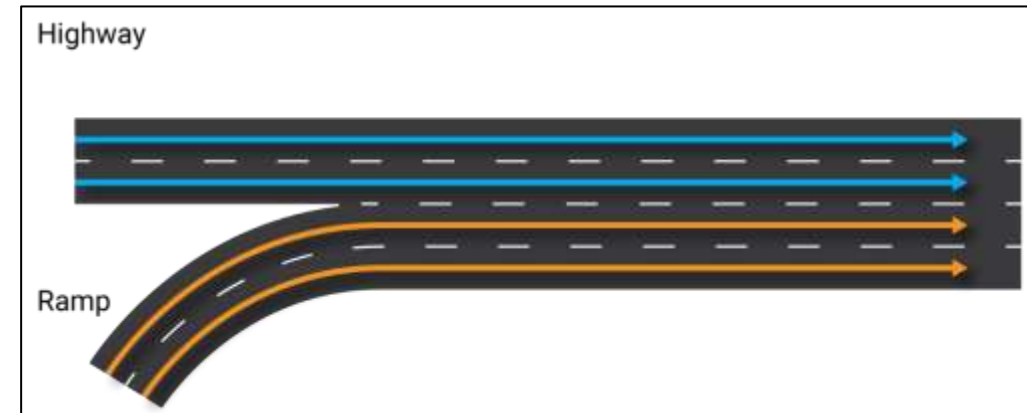


## Concept 9 - Overview

- Eliminates weaving of Route 7 traffic.
- Route 7 as an express facility with no local access.
- Eliminates left hand ramps.
- Provides lane continuity on I-84 and Route 7.
- Results in no changes to the local interchanges.



Weaving

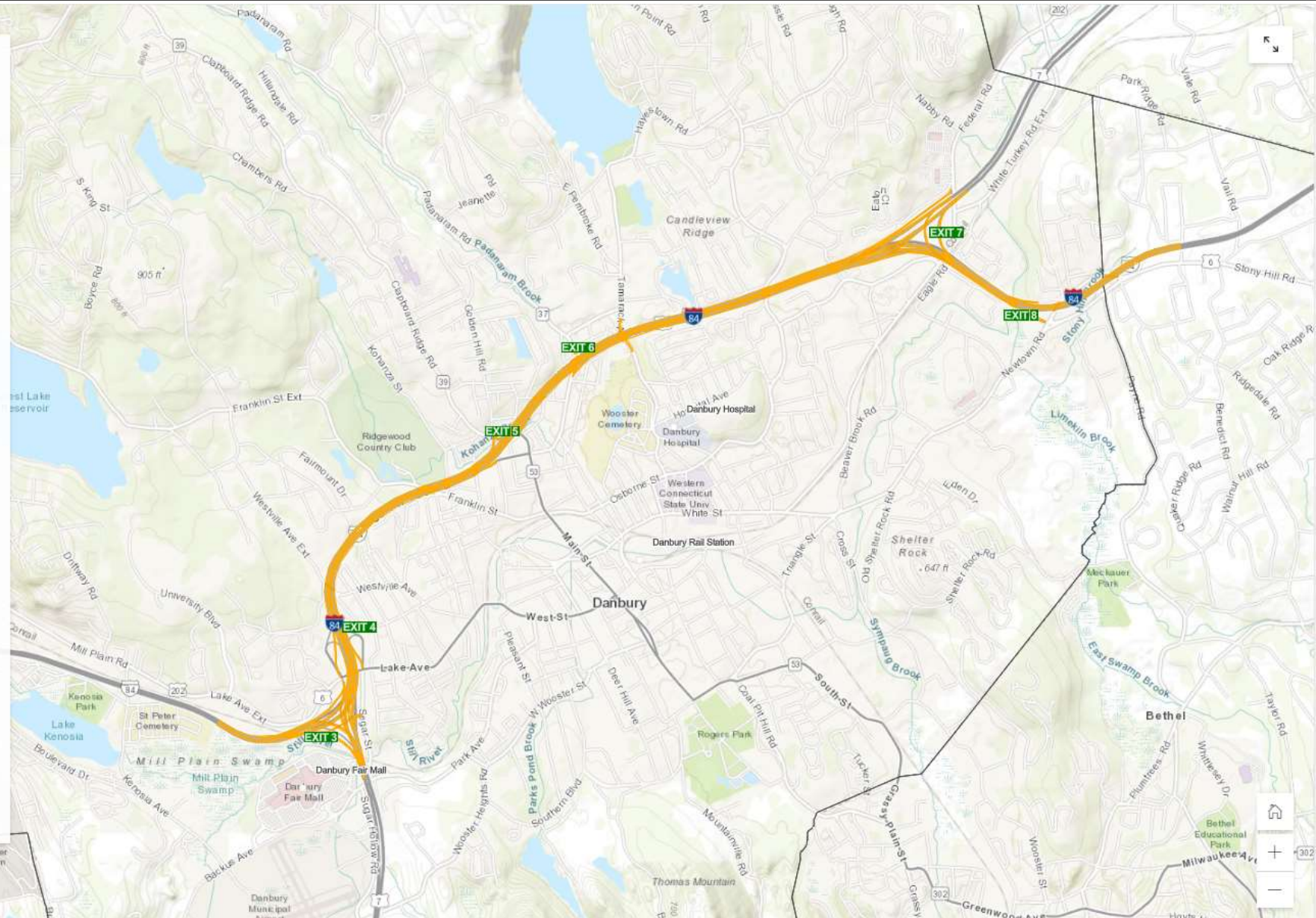
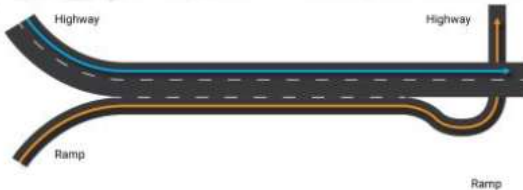


Lane Continuity



### Concept 9: Route 7 Median - Mainline

1. Route 7 will be shifted into the median section of I-84 and will be an express facility with no local connections between Interchanges 3 and 7.
2. New median barrier separating Route 7 by direction and separating I-84 with Route 7.
3. I-84 will be on the right-side providing access to local streets.
4. I-84 will be three lanes in each direction between Interchanges 3 and 7.
5. Route 7 will be two lanes in each direction in the median section.
6. Lane continuity will be maintained on I-84 and Route 7.
7. Existing left-hand ramps will be removed to/from Route 7 at Interchanges 3 and 7 and replaced with right-hand ramps.

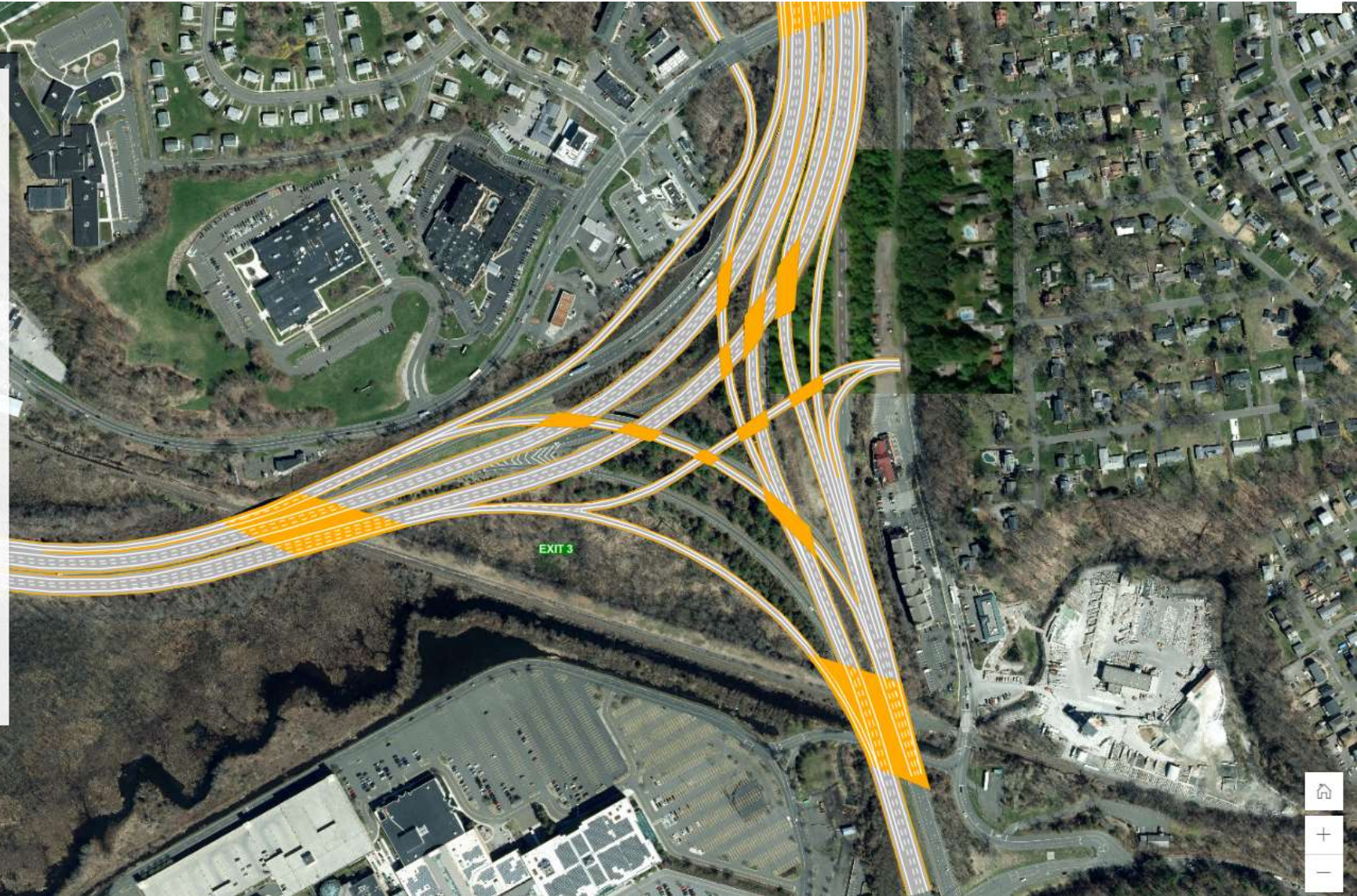
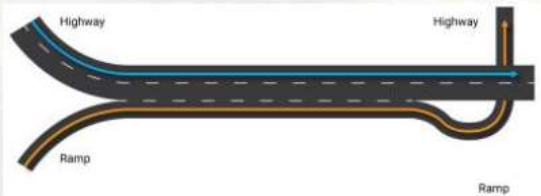






## Interchange 3 Area

1. Horizontal curve at Interchange 3 meets design standards.
2. Left-hand exit ramp to Route 7 southbound from I-84 westbound changed to a right-hand ramp at Interchange 3.
3. Left-hand entrance ramp to I-84 westbound from Route 7 northbound changed to a right-hand ramp at Interchange 3.
4. Weaving of traffic is addressed between Interchanges 3 and 4.
5. I-84 eastbound off-ramp to Segar Street.







## Interchange 4 Area

1. Lane continuity is maintained on I-84 and Route 7.
2. Route 7 express has no local access.
3. Lake Avenue on-ramp configuration is changed to I-84 eastbound.
4. Lake Avenue on and off ramps are also changed in configuration to/from I-84 westbound.

Highway



Ramp



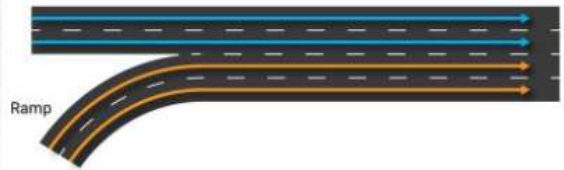




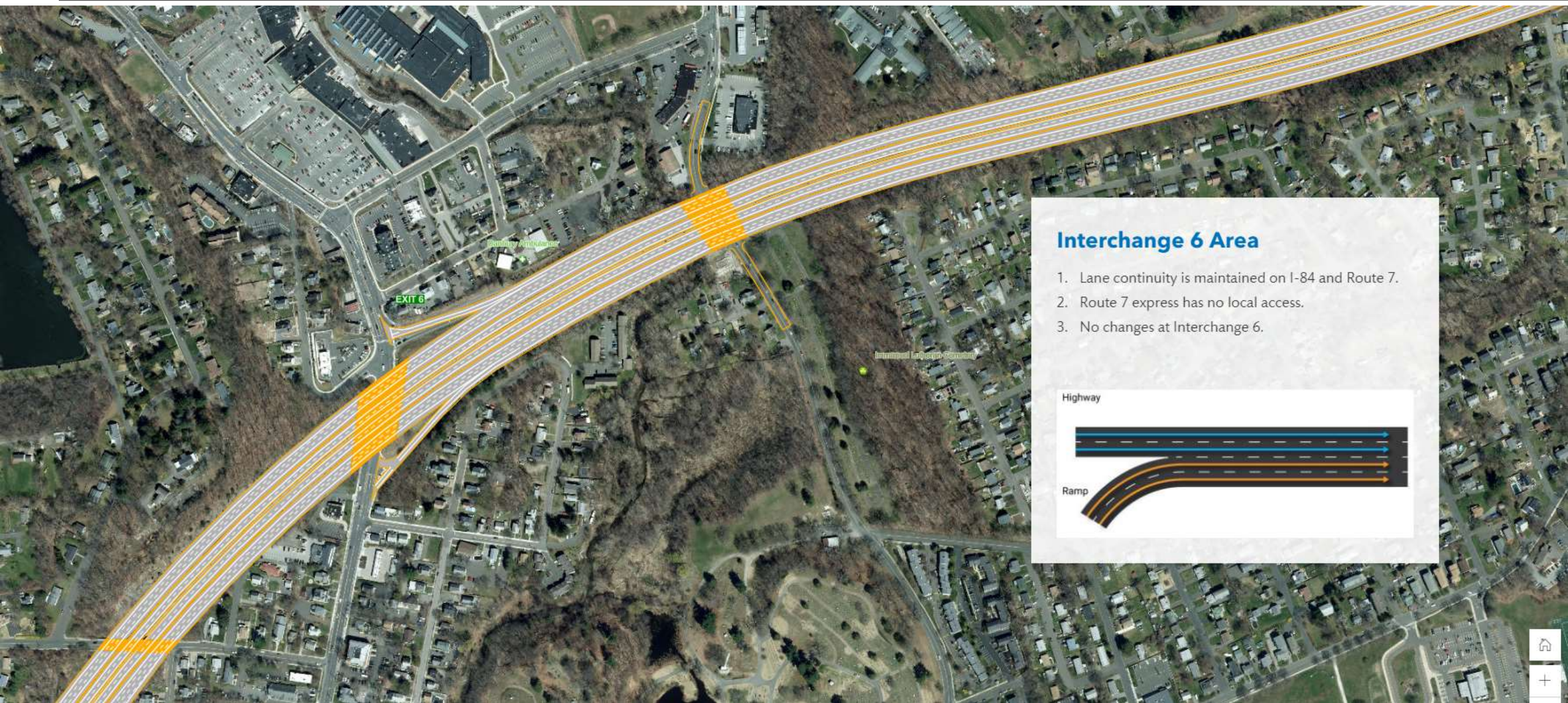
## Interchange 5 Area

1. Lane continuity is maintained on I-84 and Route 7.
2. Route 7 express has no local access.
3. No changes at Interchange 5.

Highway



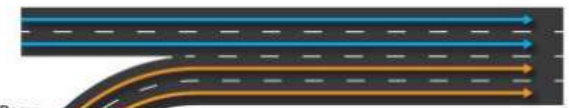




## Interchange 6 Area

1. Lane continuity is maintained on I-84 and Route 7.
2. Route 7 express has no local access.
3. No changes at Interchange 6.

Highway



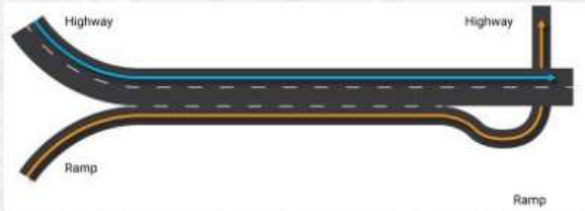
Ramp





## Interchange 7 Area

1. Horizontal curve at Interchange 7 meets design standards.
2. Left-hand exit ramp to Route 7 northbound from I-84 eastbound changed to a right-hand exit ramp at Interchange 7.
3. Left-hand entrance ramp to I-84 eastbound from Route 7 southbound changed to a right-hand exit ramp at Interchange 7.
4. Weaving of traffic is addressed between Interchanges 7 and 8.







## Interchange 8 Area

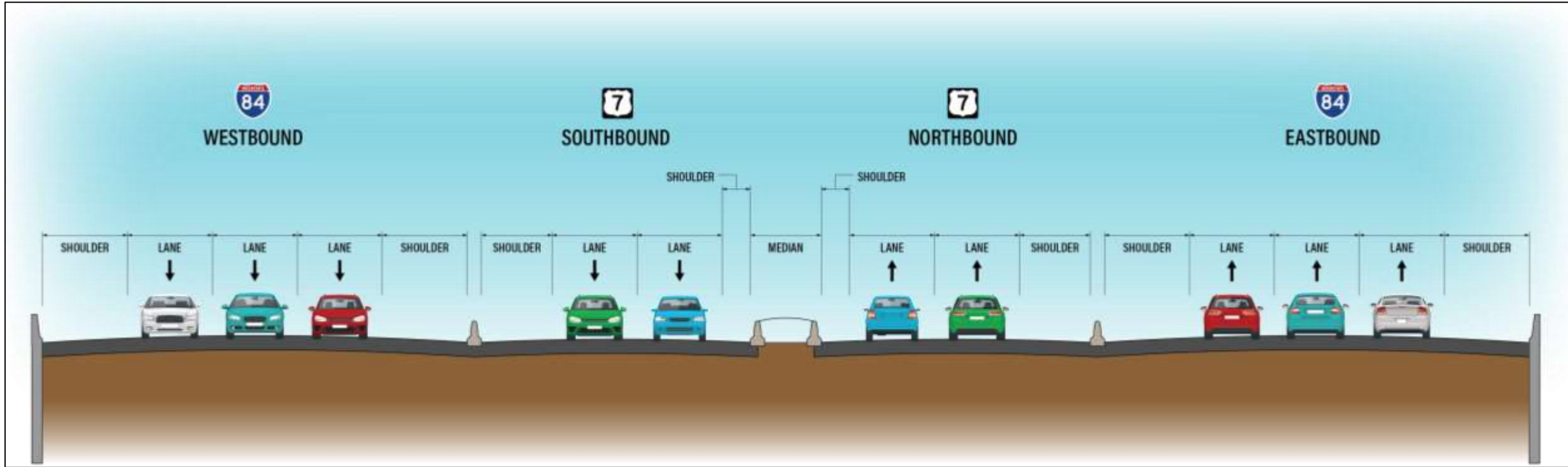
1. Lane continuity is maintained on I-84.
2. No changes at Interchange 8.







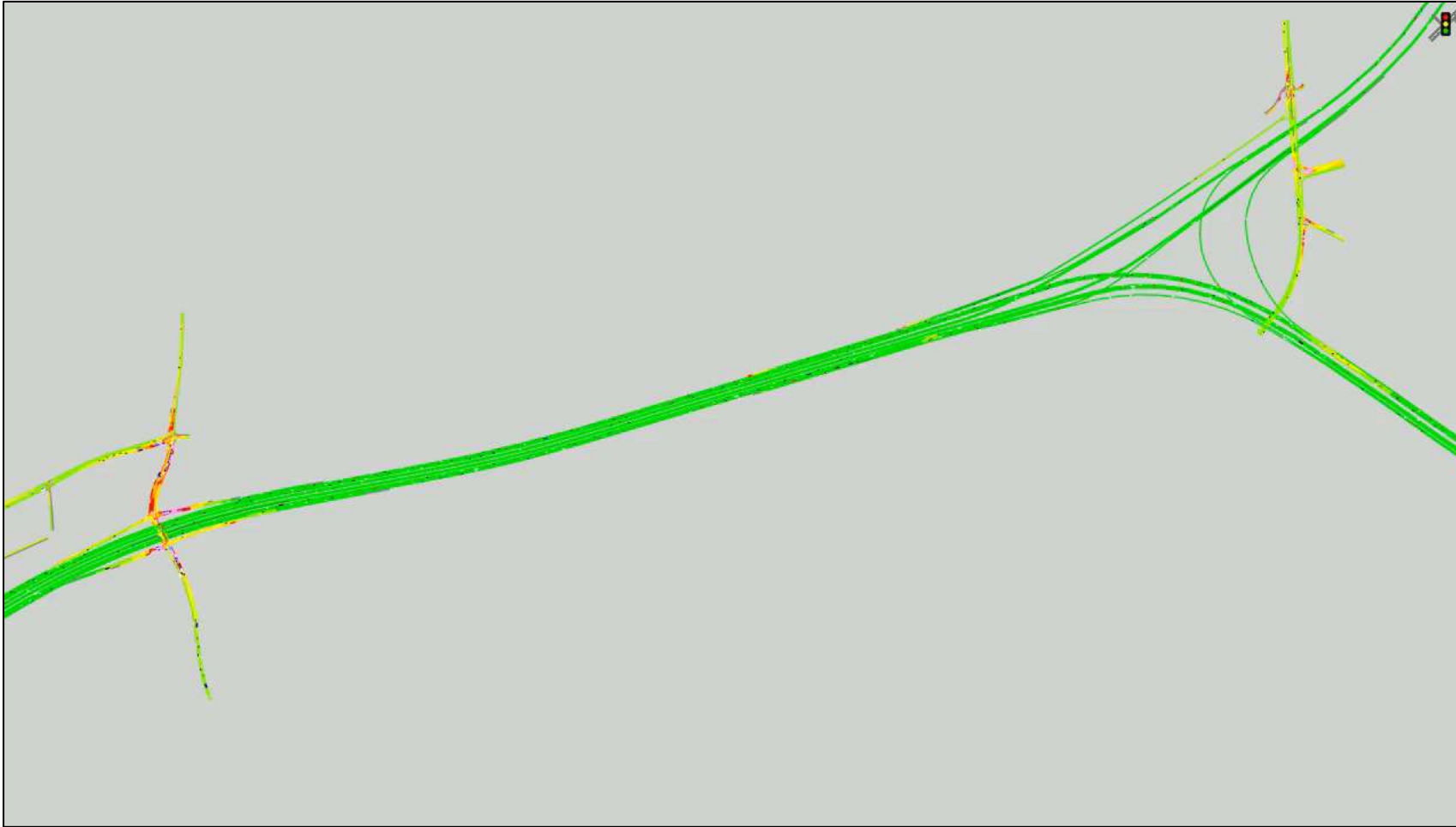
# Concept 9 Cross Section







## Weekday A.M. Peak Period

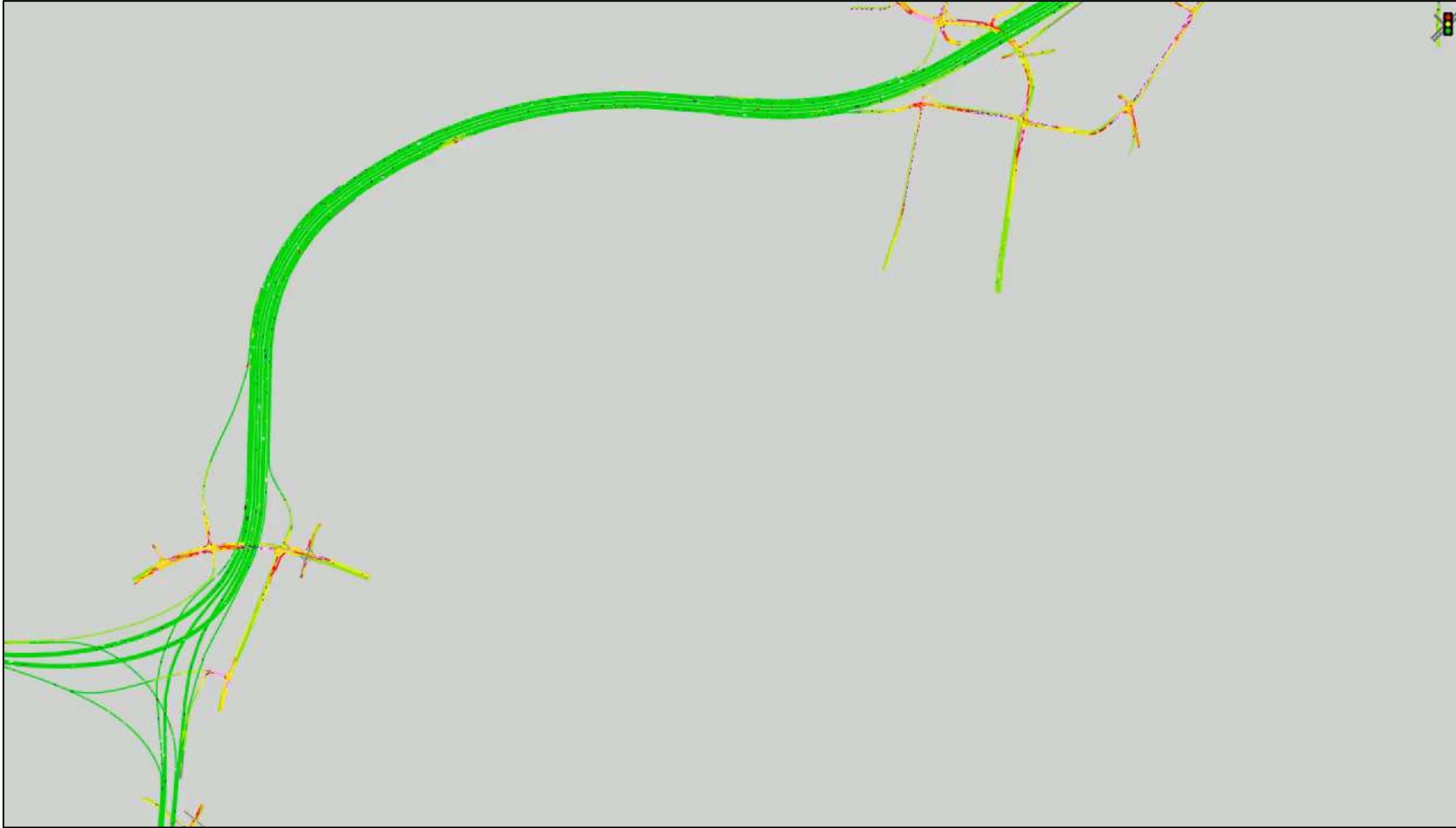


### Speed Distribution

| Min. | Max. | Color Code |
|------|------|------------|
| 0    | 5    |            |
| 5    | 10   |            |
| 11   | 20   |            |
| 21   | 25   |            |
| 26   | 30   |            |
| 31   | 40   |            |
| 41   | 50   |            |
| 51   | 60   |            |
| >60  |      |            |



# Weekday P.M. Peak Period



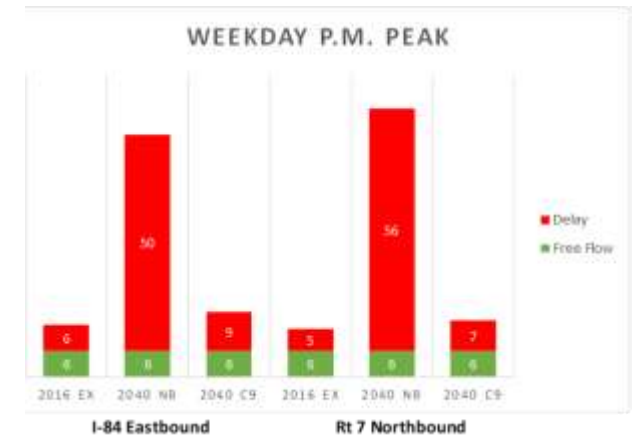
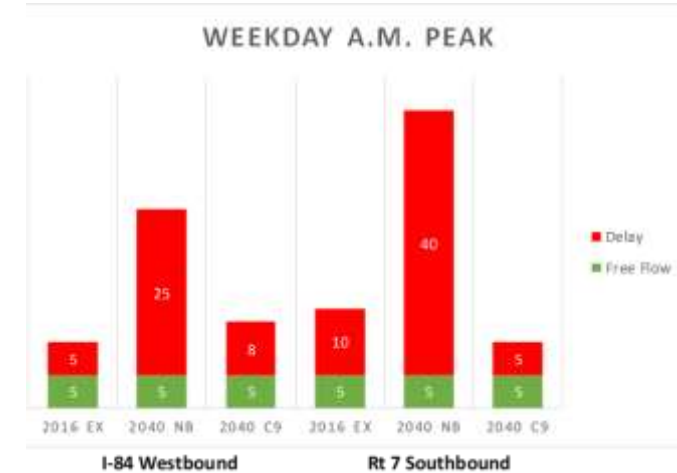
## Speed Distribution

| Min. | Max. | Color Code |
|------|------|------------|
| 0    | 5    |            |
| 5    | 10   |            |
| 11   | 20   |            |
| 21   | 25   |            |
| 26   | 30   |            |
| 31   | 40   |            |
| 41   | 50   |            |
| 51   | 60   |            |
| >60  |      |            |



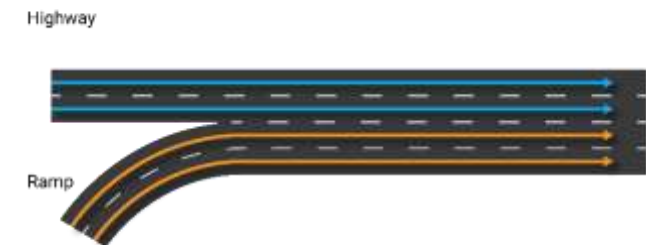
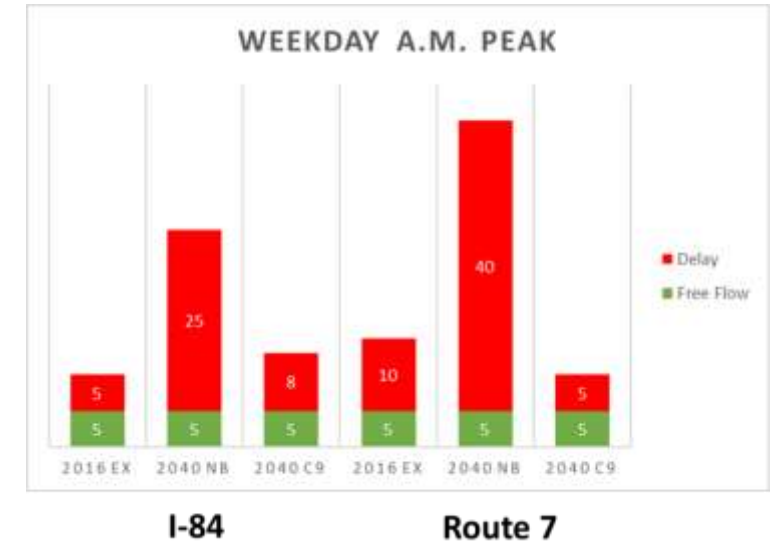
## Traffic Analysis Summary

- Reduces congestion on I-84 and Route 7.
- Increases average speed on I-84 and Route 7.
- Reduces number of stops on I-84 and Route 7.



## PROS

- + Reduces congestion on I-84 and Route 7.
- + Eliminates weaving of Route 7 traffic.
- + Eliminates left hand ramps.
- + Maintains lane continuity.
- + Requires typical construction methods.





## CONS

- Route 7 traffic has no access to Interchanges 4, 5, and 6.
- Right of way impacts.
- Does not improve pedestrian and bicycle movements.
- Does not improve access to Danbury Hospital and downtown.
- Impacts streams and watercourses parallel to the highway.



# Construction Cost Estimate

| Cost Range                   | Rating     |
|------------------------------|------------|
| Less than \$0.5 billion      | \$         |
| \$0.5 billion to \$1 billion | \$\$       |
| \$1 billion to \$3 billion   | \$\$\$     |
| \$3 billion to \$5 billion   | \$\$\$\$   |
| Greater than \$5 billion     | \$\$\$\$\$ |

\*Note: The construction cost estimate is inflated to mid-point of construction not including right-of-way and engineering costs.



## Recommendation:

This concept has merit for reducing congestion and improving mobility on the highway and should be evaluated further in the next phase.



# Discussion/Questions

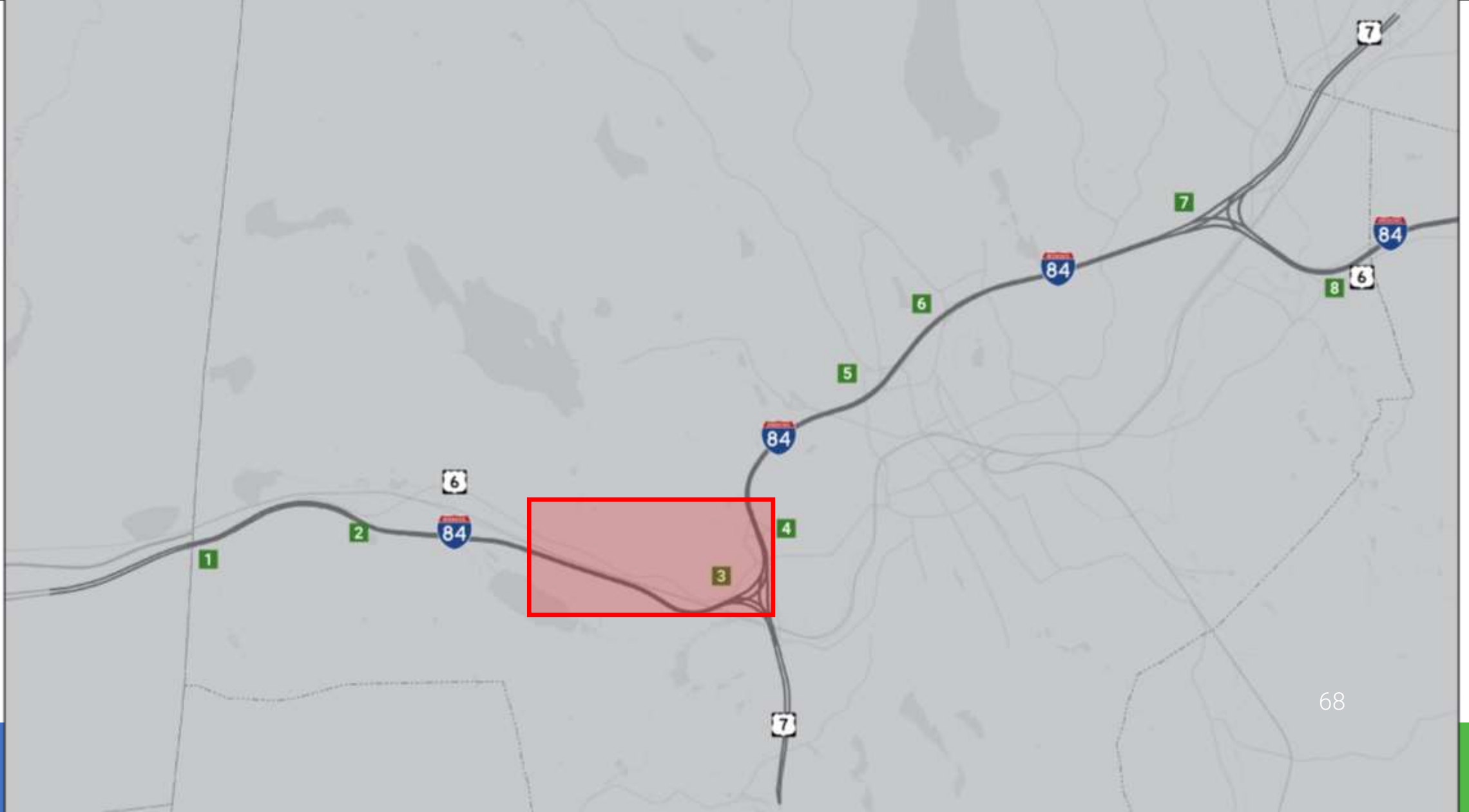




# Concept 7 Tunnel - West



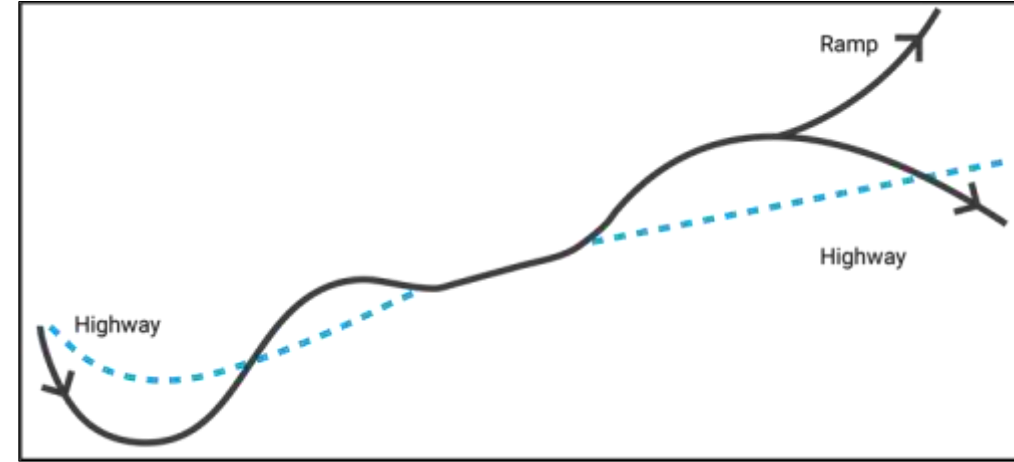
## Concept Location Map



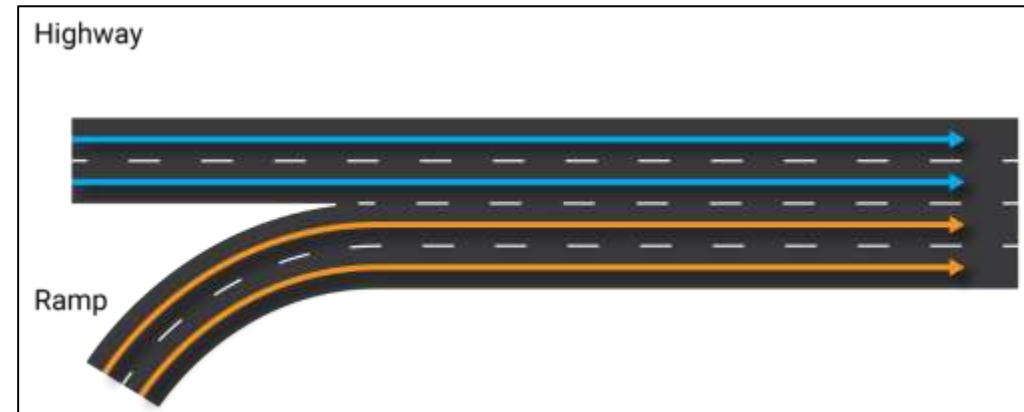


## Concept 7 - Overview

- Straightens the highway between Interchanges 2 and 5.
- Eliminates left hand ramps at Interchange 3.
- Provides lane continuity on I-84.



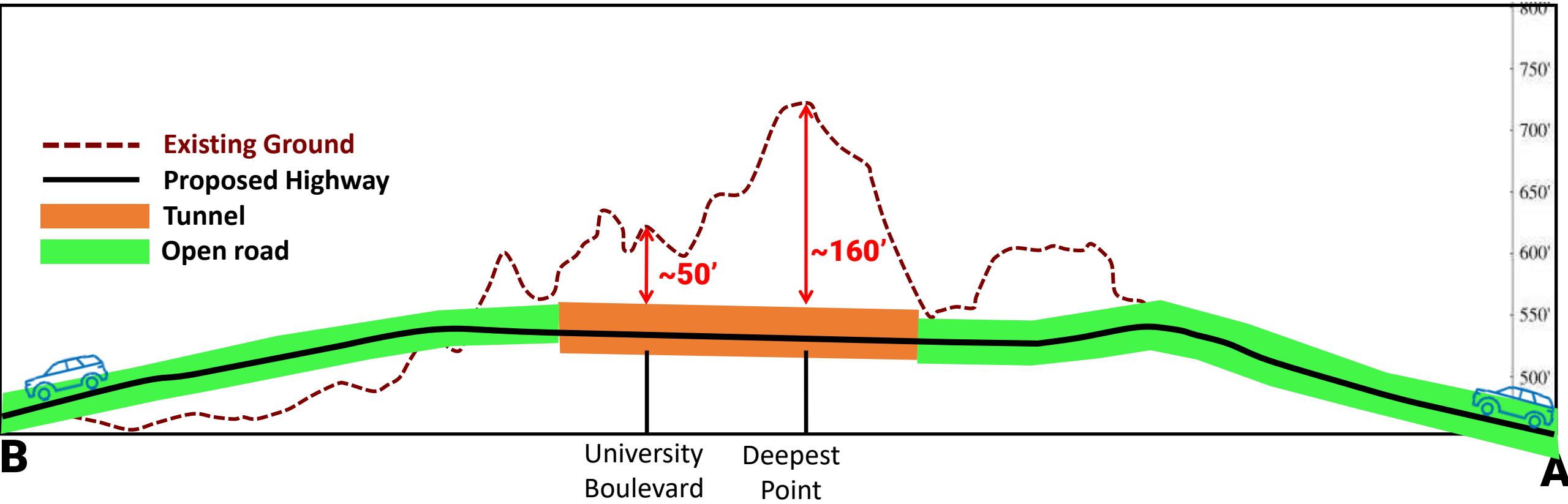
Roadway Curvature



Lane Continuity



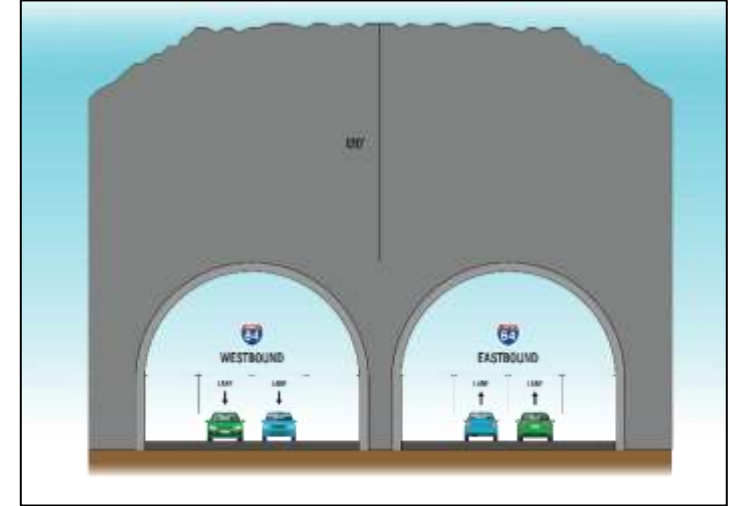




## PROPOSED HIGHWAY

## Key Constructability Issues:

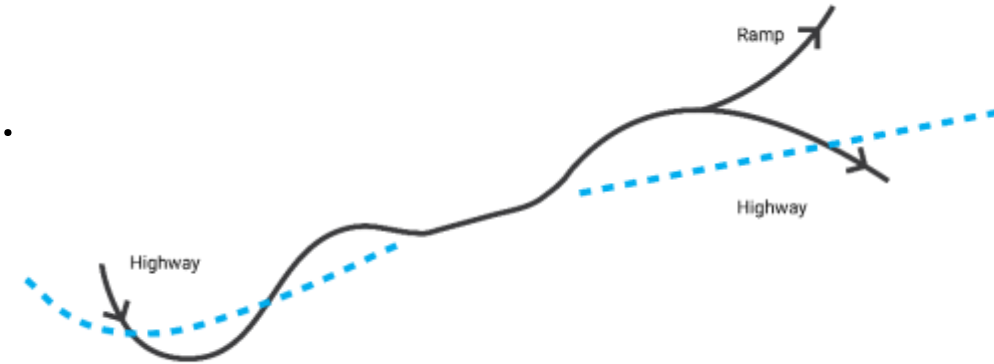
- Size and availability of equipment.
- Duration of construction.
- Staging and sequencing of work.
- Staging area for equipment.
- Specialized staff to perform the work.
- Disposal of excavated material.





## PROS

- + Improves horizontal curvature near Interchange 3.
- + Can be built while maintaining existing traffic.
- + Traffic impacts during construction are minimal.
- + Maintains lane continuity within concept limits.



## CONS

- Results in property impacts i.e. West Lake Water Treatment Plant facility.
- Disturbs previously undisturbed neighborhoods and community cohesion.
- Does not reduce congestion at merge areas.
- Creates a redundant highway system.
- Poses concerns with safety and security.
- Introduces the operation and maintenance of a tunnel on a long-term basis.





# Construction Cost Estimate

| Cost Range                   | Rating     |
|------------------------------|------------|
| Less than \$0.5 billion      | \$         |
| \$0.5 billion to \$1 billion | \$\$       |
| \$1 billion to \$3 billion   | \$\$\$     |
| \$3 billion to \$5 billion   | \$\$\$\$   |
| Greater than \$5 billion     | \$\$\$\$\$ |

\*Note: The construction cost estimate is inflated to mid-point of construction not including right-of-way and engineering costs.

## Recommendation:

This concept should be dismissed from further consideration.





# Discussion/Questions



# Upcoming Concepts



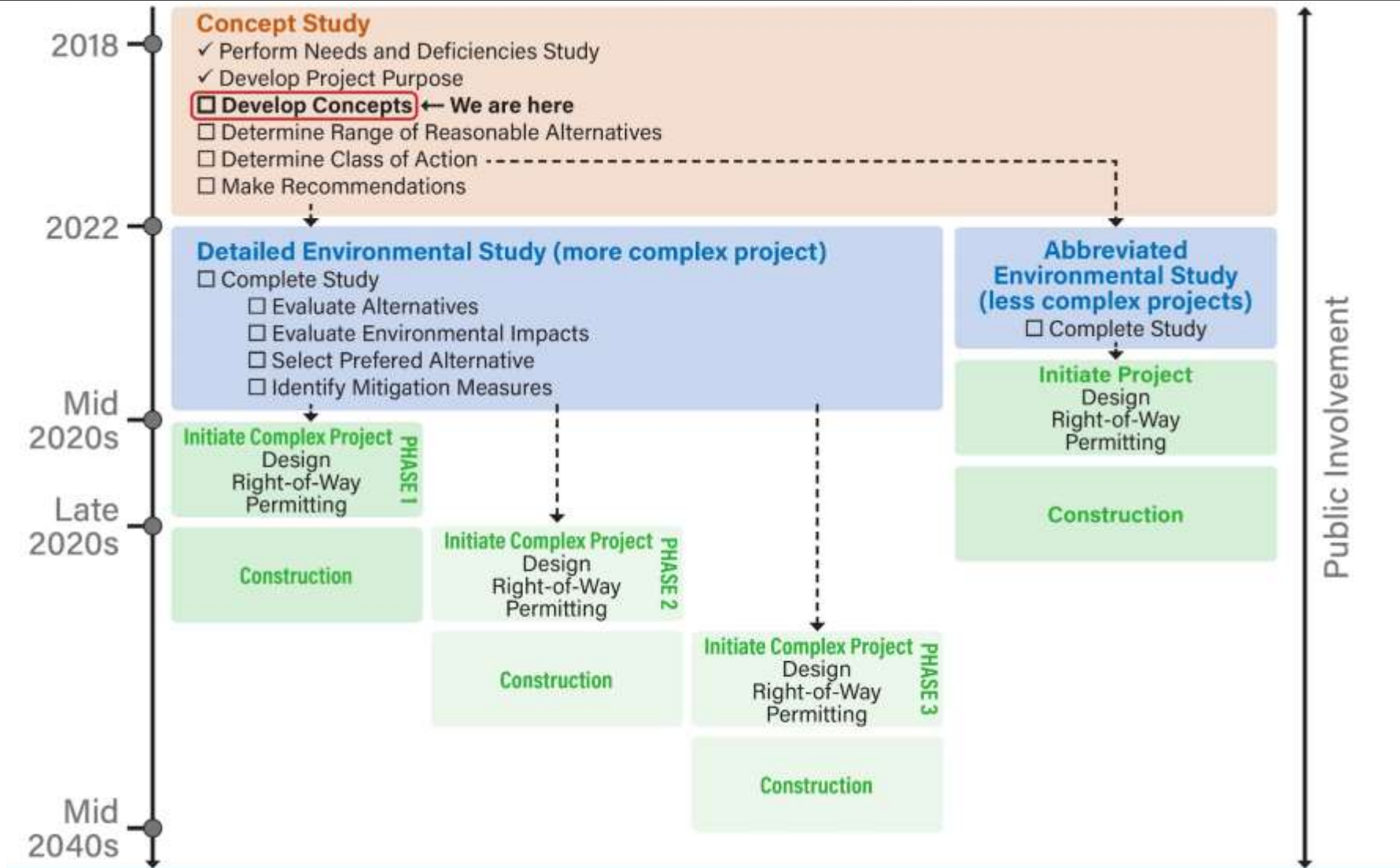


## Concept 4 - Non-Highway Option





# Process and Timeline







# Next Steps

## Next Steps

- Complete concept development
- Establish screening criteria and performance measures
- Next PAC Meeting – Summer 2021
  - ✓ Focus on Concept 4 (Non-highway option)
  - ✓ Possibly present other concepts and discuss screening criteria
- Develop a range of reasonable alternatives to move forward into the environmental phase





# Discussion/Questions

## Project Contacts:

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# Thank You!