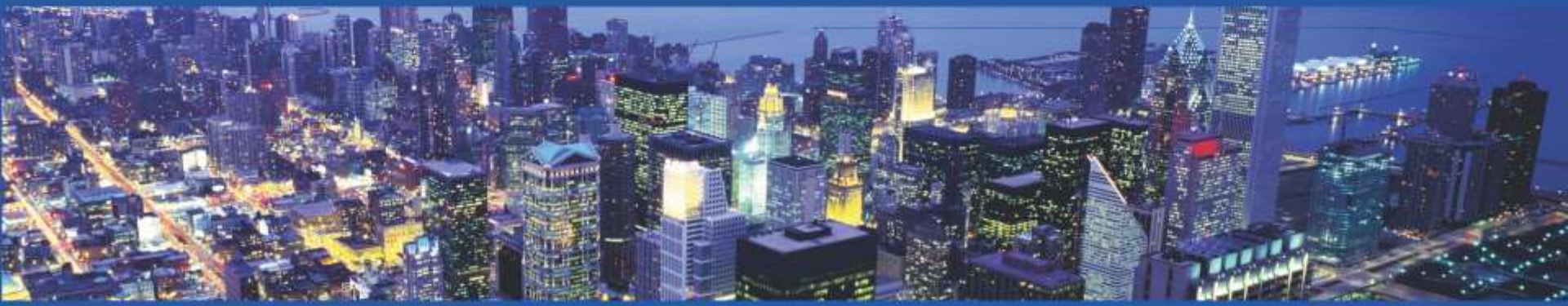
ILLINOIS DEPARTMENT OF TRANSPORTATION
CHICAGO DEPARTMENT OF TRANSPORTATION
NORTH AMERICA'S FREIGHT RAILROADS

C R E A T E

Chicago Region Environmental and Transportation Efficiency Project



KEEPING THE GO IN CHICAGO

Chicago Regional Environmental and Transportation Efficiency Program (CREATE) Update

William C. Thompson, P.E.

CREATE Railroad Program Manager

Association of American Railroads

CREATE Update

- INTRODUCTION
- HISTORICAL PERSPECTIVE
- CREATE PROGRAM DESCRIPTION
- CURRENT STATUS OF THE PROGRAM
- CHALLENGES
- CONCLUSION & DISCUSSION

CREATE Update

- **INTRODUCTION**
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“Chicago and Northeastern Illinois have been the railroad hub of the nation for more than 150 years. This plan will serve as a blueprint for continued investment in and operation of the railroads”

- Mayor Richard M. Daley

What is CREATE?

CREATE is a $1.5 billion program designed to improve transportation flow through Chicago focusing on:

- Freight trains
- Separation of freight & commuter trains at 6 key junctions
- Elimination of 25 grade crossings (grade separations)

It is a cooperative project involving the

- 6 major North American freight carriers
- METRA
- The City of Chicago (CDOT)
- Illinois Department of Transportation (IDOT)
- US Department of Transportation (FHWA & FRA & FTA)

CREATE is an acronym for **C**hicago **R**egion **E**nvironmental **A**nd **T**ransportation **E**fficiency program.

CDOT
CHICAGO DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation

NS NORFOLK SOUTHERN

CSX

CN

UNION PACIFIC

BNSF RAILWAY

ASSOCIATION OF AMERICAN RAILROADS

"IHB CONNECTION" INDIANA HARBOR BELT PROUD PAST - BRIGHT FUTURE TM

Metra®

THE BELT RAILWAY CO of CHICAGO

Chicago Rail Infrastructure

- 16,000 acres, twice the area of O'Hare
- 78 yards, including 21 intermodal (rail-truck)
- 2,800 route-miles of track
- 12 commuter rail routes
- 1,100 viaducts and bridges

Daily Activity

- 1,200 trains (500 freight, 700 passenger)
- 37,500 rail cars processed
- 20,000 truck moves through intermodal gates

Chicago: The Nation's Transportation Hub

- World's 3rd busiest intermodal hub. Growing 12%+ annually.
- 1/3 of all freight rail traffic converges on Chicago daily.
- Rail network key part of national, regional and local economy.
- In 20 years freight rail volume in Chicago will grow 80%.
- If rail capacity is not addressed, Chicago will lose $2 billion in production over the next two decades.

CHICAGO GATEWAY
Vancouver
Seattle
Portland
CANADA
Montreal
Halifax
Minneapolis/ St. Paul
Toronto
Boston
Chicago
Detroit
Omaha
San Francisco
Denver
New York
U S A
Los Angeles
Norfolk
Atlanta
Dallas/Ft. Worth
New Orleans
Miami
Monterrey
MEXICO
Mexico City

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Chicago Planning Group

- In response to the crisis, the Chief Operating Officers formed the Chicago Planning Group (CPG)
  - The Group is comprised of operating representatives from METRA, Amtrak, BNSF, BRC, CN, CP, CSXT, IHB, NS, UP
- Objectives of the CPG
  - Ensure Chicago “Terminal” Became Fluid and Remained Current
  - Identify Processes in Chicago Area That Impact Train Operations
  - Develop Strategies Relieve Operational Issues

“It’s easy to get the players.

Gettin’em to play together, that’s the hard part”

Casey Stengel

Chicago Transportation Coordination Office

- Staffed with full time transportation (Superintendent) officers from: BNSF, BRC, CN, CPR, CSX, IHB, NS & UP
- Permanent Space at METRA Spring 2000
- Coordinate Carriers' Conference Calls Twice Daily
- Participate in Quarterly ISA Negotiation and Review Sessions
- Responsible for Actions of Chicago Alert Plan

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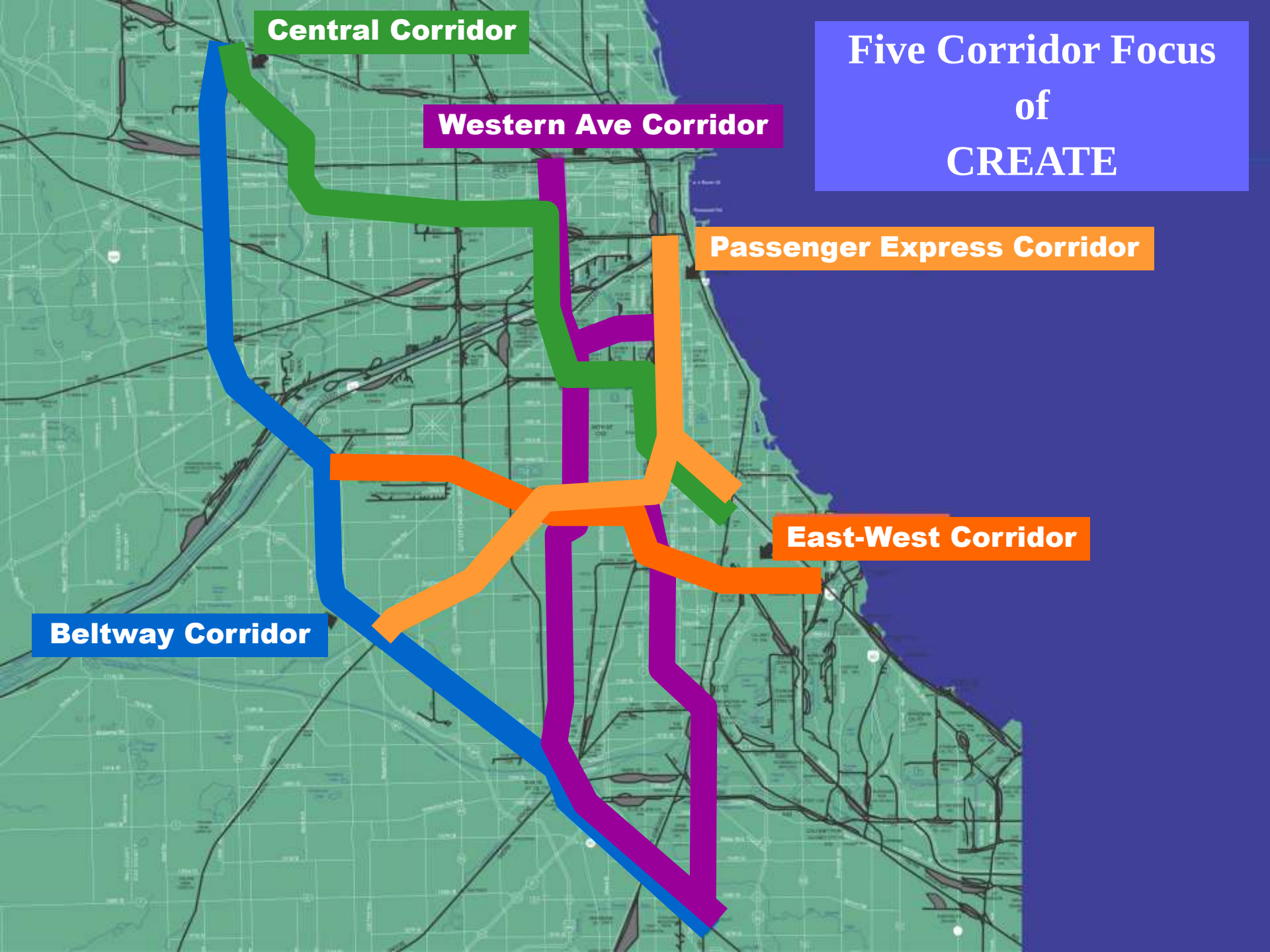
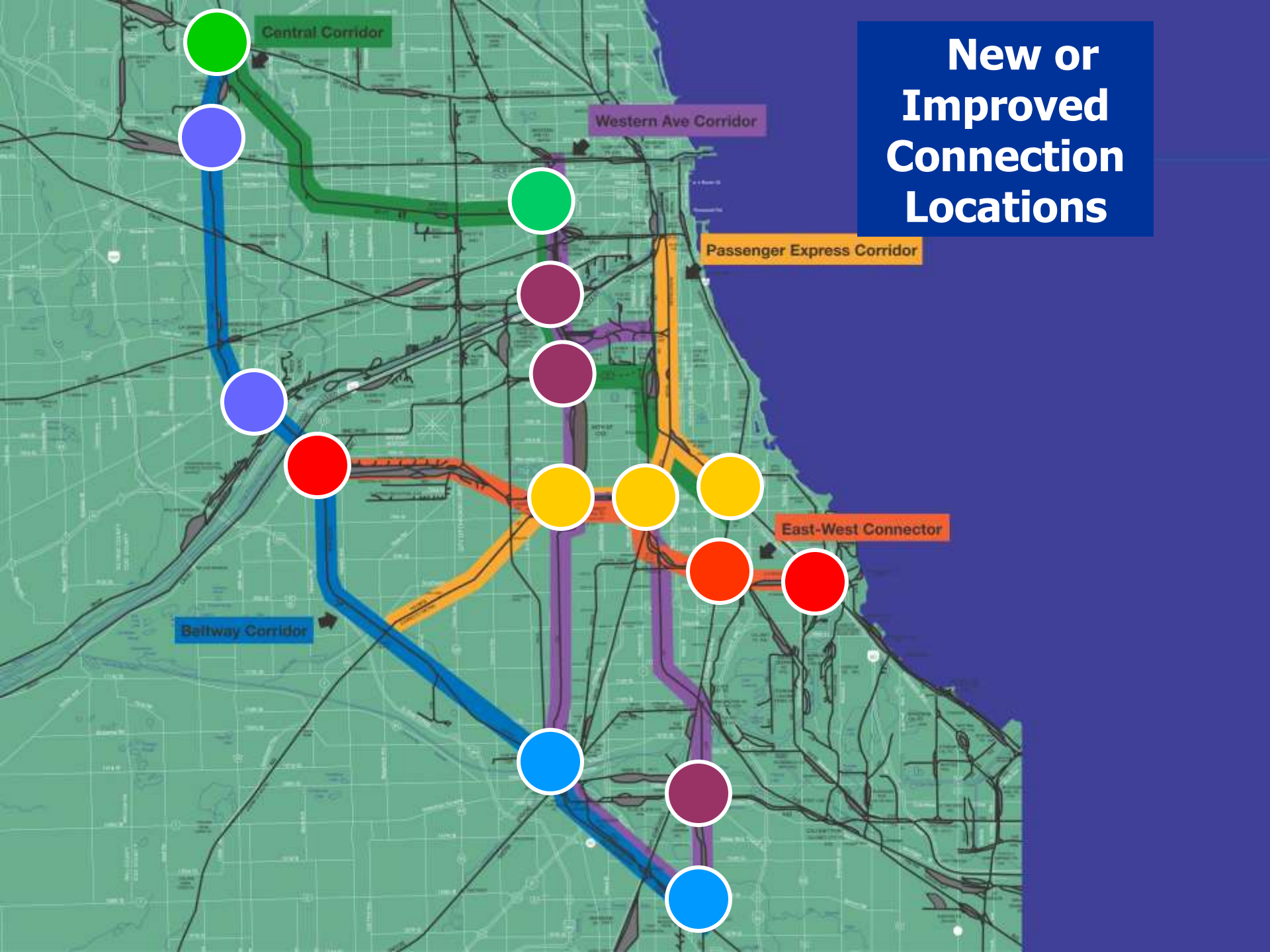
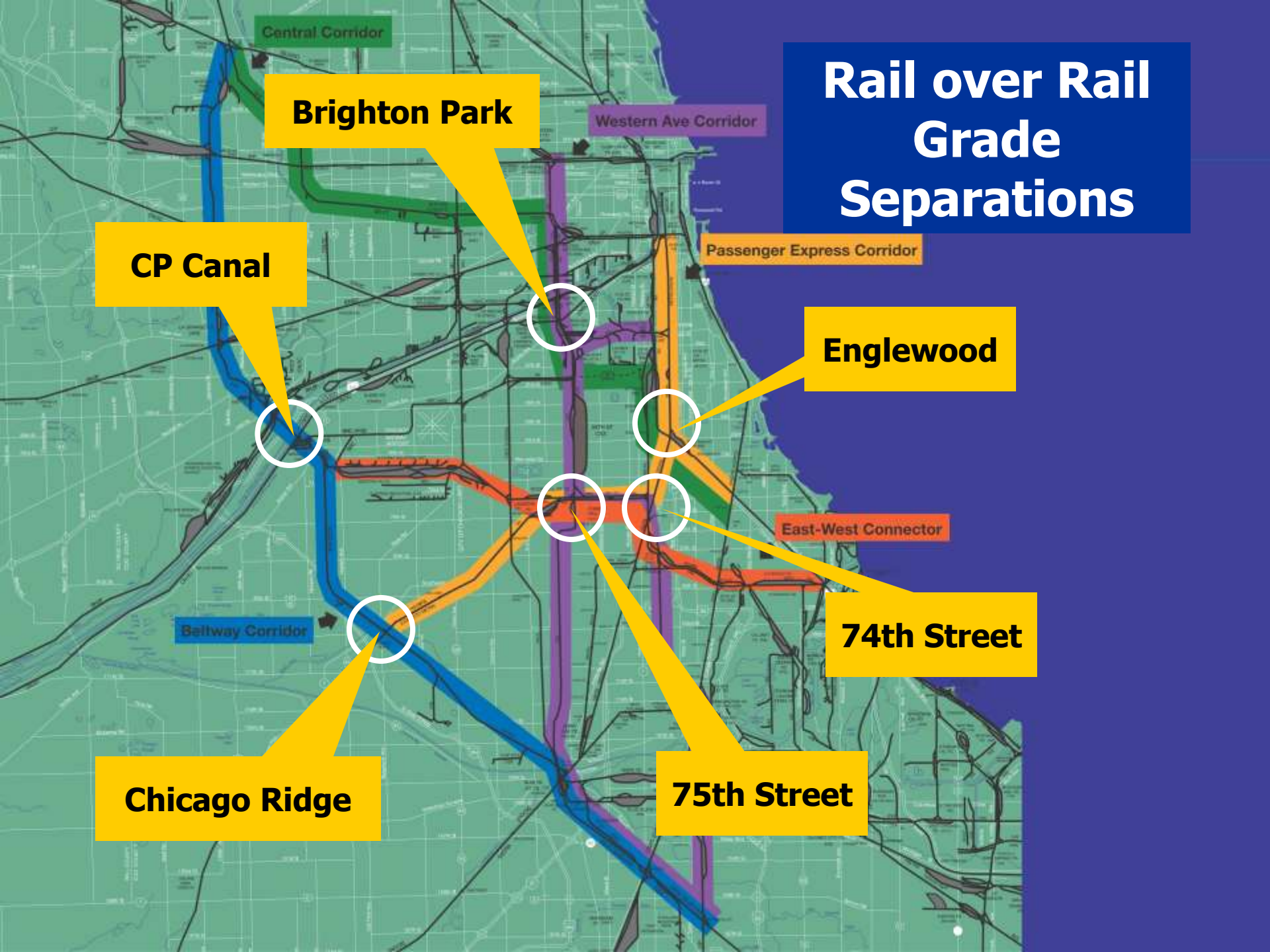
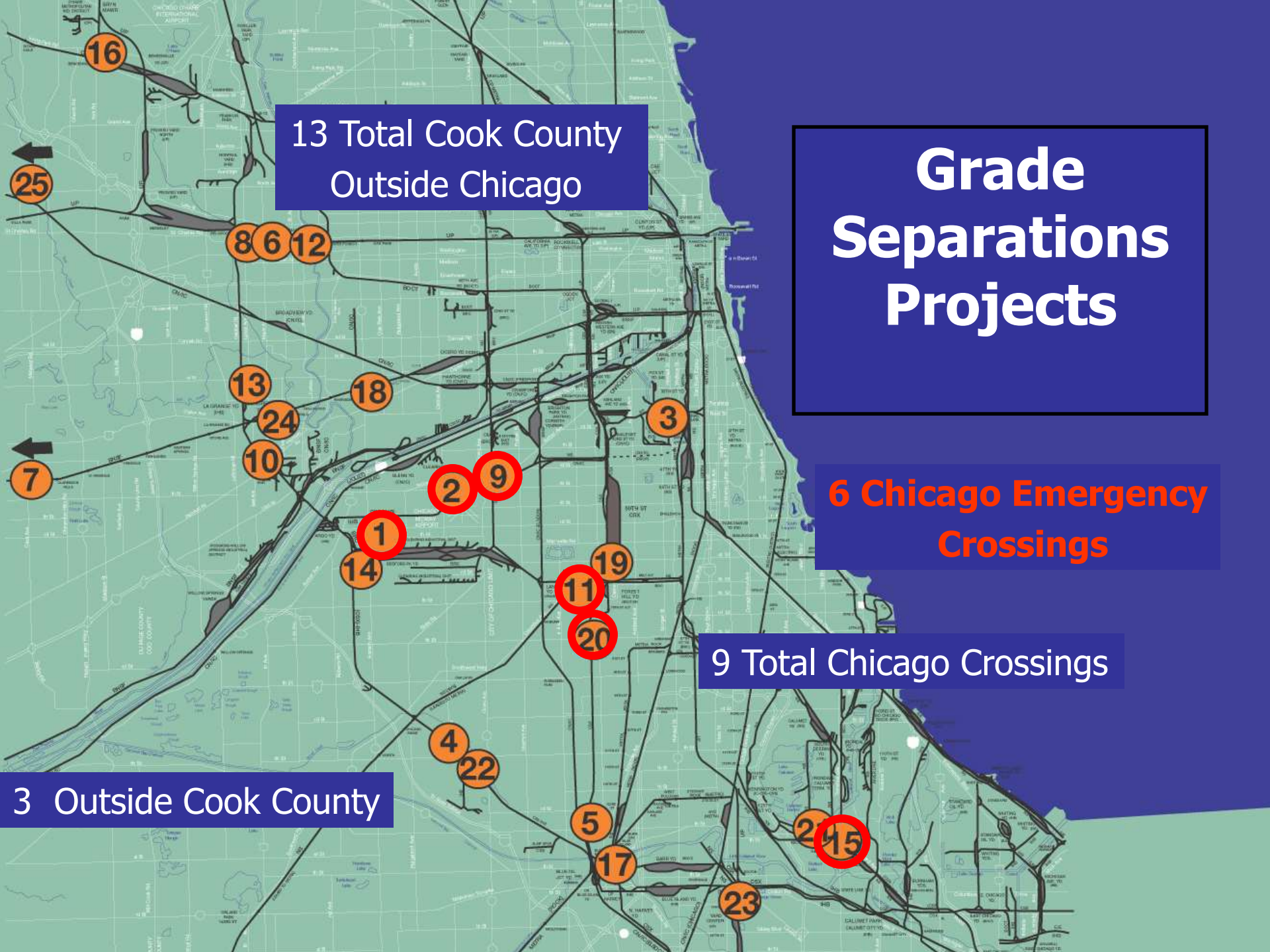
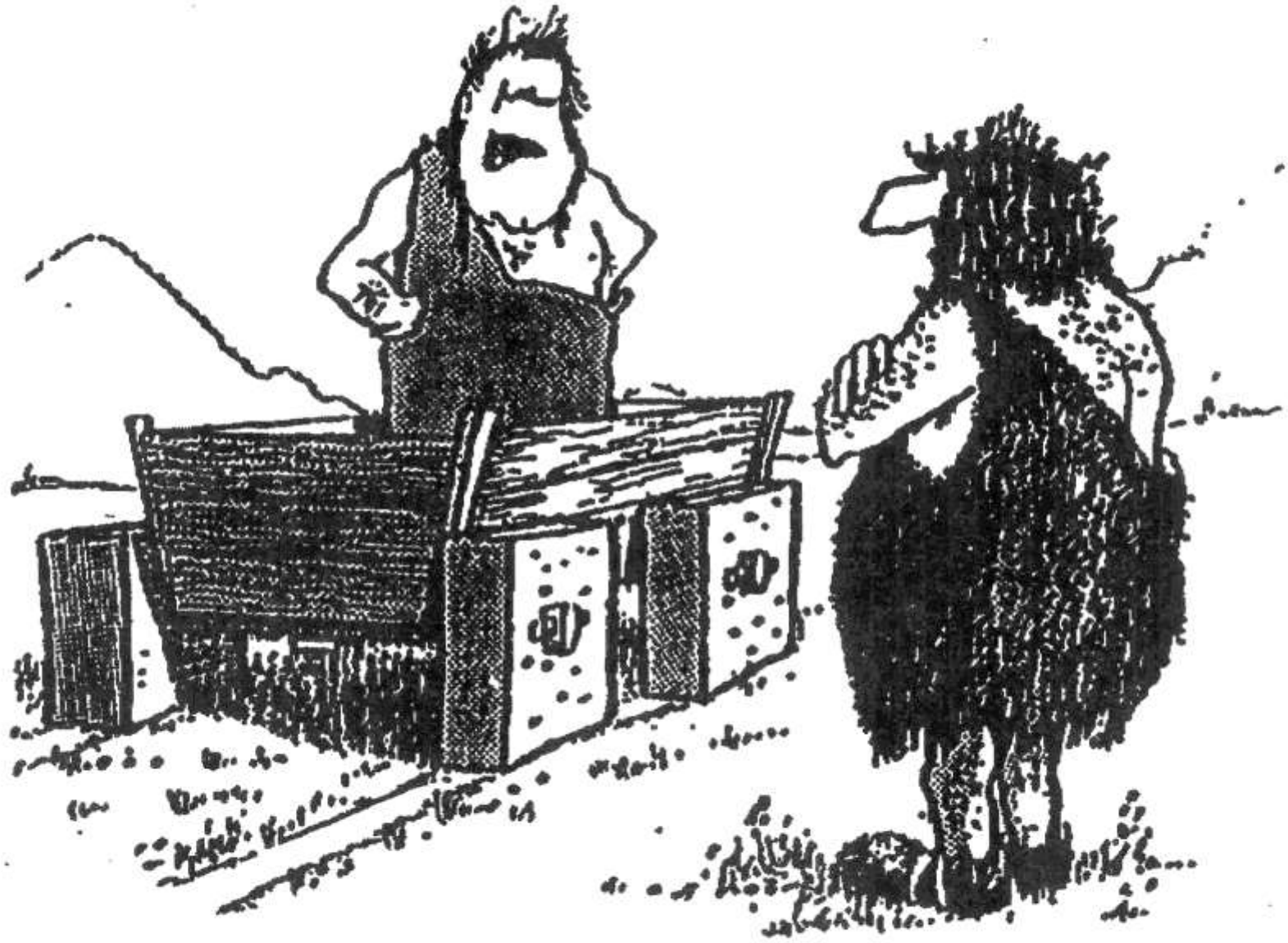

Central Corridor
Western Ave Corridor
Passenger Express Corridor
East-West Corridor
Beltway Corridor
Five Corridor Focus
of
CREATE


Central Corridor
Western Ave Corridor
Passenger Express Corridor
East-West Connector
Beltway Corridor
New or Improved Connection Locations


Central Corridor
Brighton Park
Western Ave Corridor
Rail over Rail Grade Separations
Passenger Express Corridor
CP Canal
Englewood
East-West Connector
74th Street
Bellway Corridor
Chicago Ridge
75th Street

Brighton Park


13 Total Cook County Outside Chicago
Grade Separations Projects
6 Chicago Emergency Crossings
9 Total Chicago Crossings
3 Outside Cook County
16
25
8
6
12
13
18
24
10
7
2
9
1
14
19
11
20
3
4
22
5
17
23
15



“D’yer ever feel you’re on the verge of an incredible breakthrough?”

CREATE Update

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CREATE Program Funding

Total Estimated CREATE Program	$1,532 M

To Date

Railroad's (mapping/public involvement)	$2.5 M
State of Illinois (5 consultant contracts)	$10.0 M
FRA (mapping - research)	$500,000
Amtrak	$250,000
Federal SAFETEA-LOU (pending assignments)	$100.0 M

CREATE Operating and Engineering Organization and Process

Railroad Industry Organization

- SOMC
- **Chicago Planning Group**
- **Chicago Transportation Coordination Office**
- CREATE Program Manager
- **CREATE Railroad Design Group**

Joint with CDOT & IDOT

- CREATE Management Committee
- **CREATE Mapping Committee**
- **CREATE Engineering Committee**

CREATE Mapping Committee

Abby Clark – CSX

Brent Mason – NS

Carole D'Aoust Martin – CN

Earl Wacker – CSX / CTCO

Mike Garcia – IDOT

Bill Thompson – AAR

CREATE Mapping Committee

Accomplishments – Railroad Industry Contract

- Developed base mapping and surveying strategy, specifications and plans using Light Detection and Ranging (Lidar) and Global Positioning System (GPS)
- RFP, hired consultant (HNTB & subs Chance / Optram) and implemented
- Data and photos delivered to IDOT consultants per CREATE agreement

Lessons Learned

- Horizontal tolerance using Lidar of 3 inches is a very tight specification
- Risk taking is a lot of work and can pay off

CREATE Mapping Committee

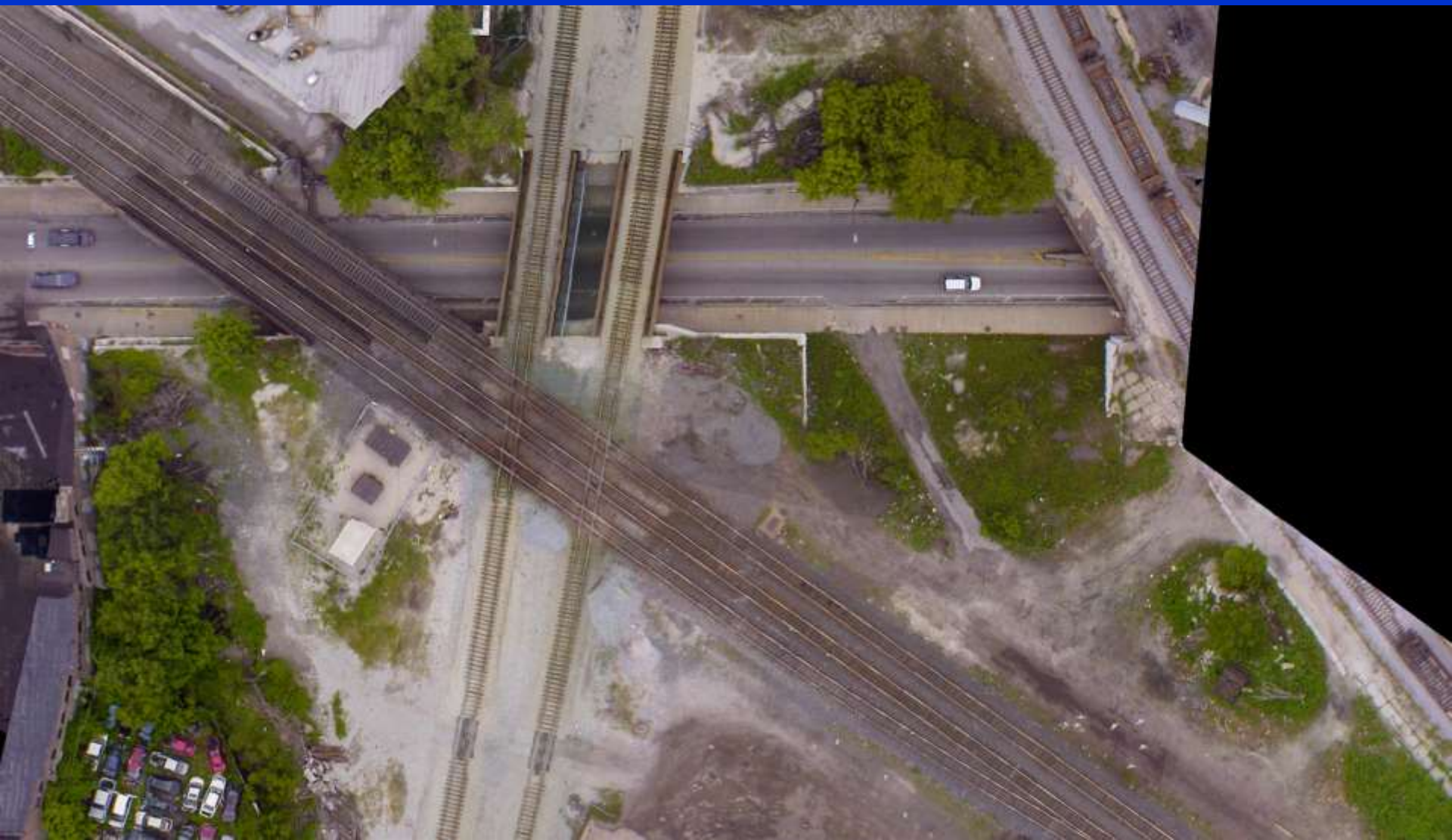
Benefits

- Significant improvement vs. conventional in safety, train delay due to track time and cost

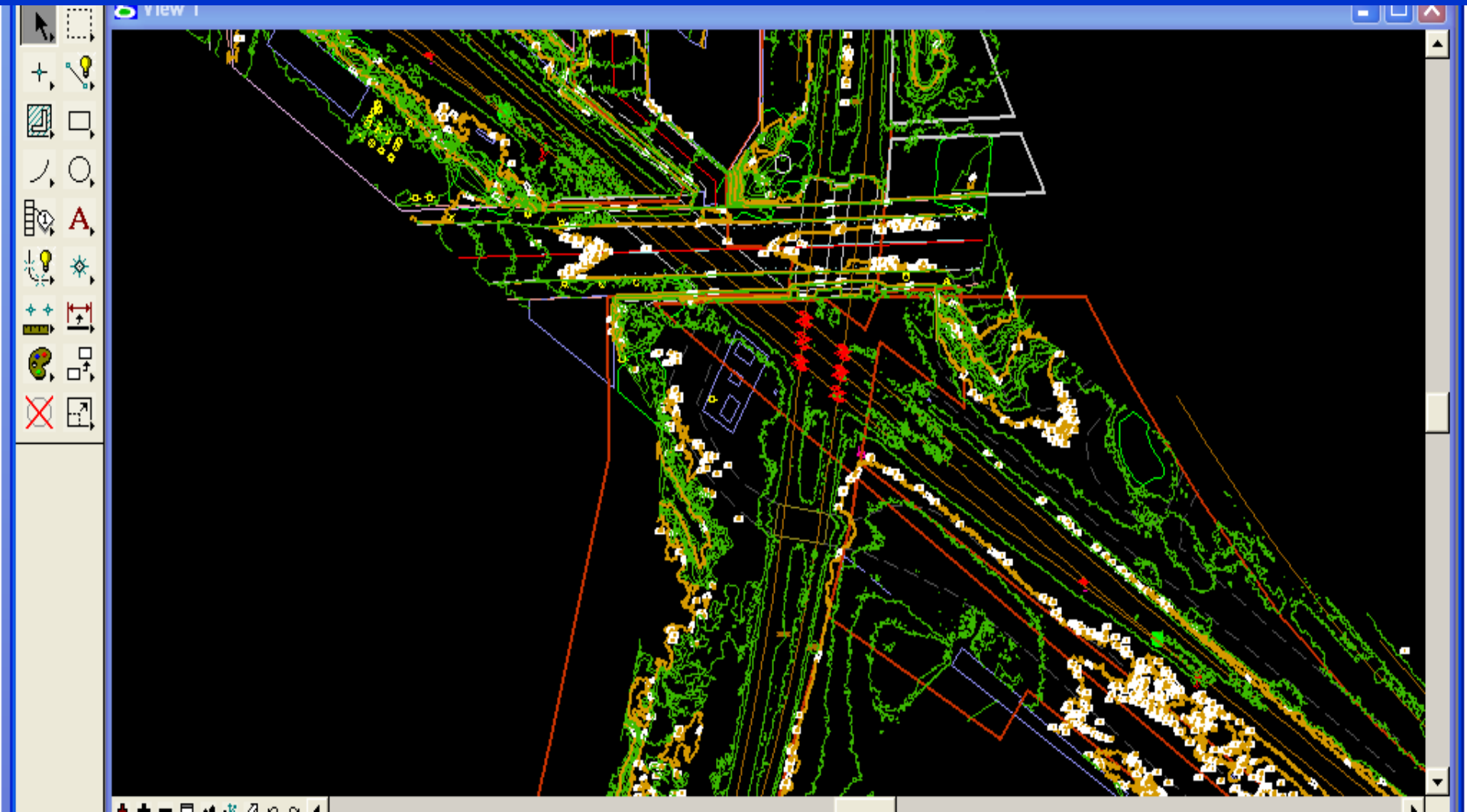
Forward efforts

- Finalize data storage and organization strategy – web solution

Mapping Output - Orthophoto (P-1)



Mapping Output - Digital Terrain Map (P-1)



CREATE Railroad Design Group

Clyde Stack – BNSF

David Orrison – NS

Dave Crader – CN

Gary Bates – UP

Gray Chandler – CSX

Joe Lorenzini – Metra

Mike Franke – AMTRAK

Nick Montangano – IHB

Randy Smith – BRC

Ray Strelesky – CP

Bill Thompson – AAR
(CHAIR)

CREATE Railroad Design Group

Accomplishments

- Worked with CTCO to develop scope and conceptual designs for railroad projects
- Developed initial cost estimate and construction schedule for railroad projects
- Developing master schedule for railroad projects

Lessons Learned

- Never holdback, PPPPP & Leverage

CREATE Railroad Design Group

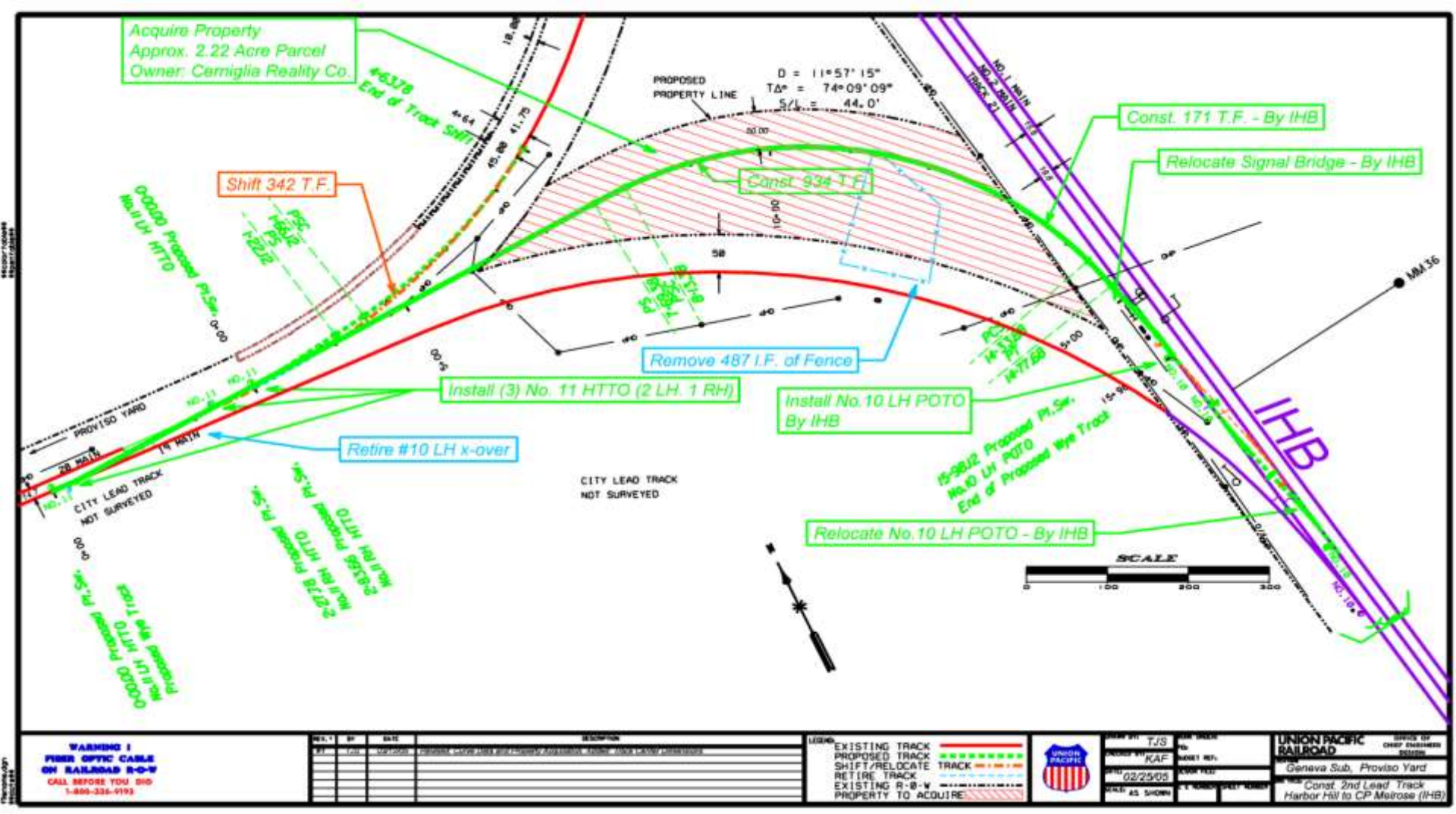
Benefits

- Continued refinement of process and projects

Forward efforts

- Ensure operational requirements are met
- Review of all designs to ensure compliance with railroad requirements
- Monitor scope, constructability, schedule, operational requirements and cost
- Construct railroad projects

Design Group Output - Melrose Connection (B-3)



CREATE Engineering Committee

IDOT

- **John Schwalbach**
- Mike Garcia – GIS+
- Walt Zyznieuski - ECAD

CDOT

- Joe B. Alonzo
- Merrill Travis - consultant

Railroads

- Bill Thompson
- Earl Wacker
- Railroad Design Group (optional)

FHWA

- Paul Schneider

(New relationship)

CREATE Engineering Committee

Accomplishments

- Continuous communication between project managers
- Continuous review of consultant output and monitor scope
- Improved understanding of the FHWA and environmental requirements
- Address MAJOR cross functional issues

Lessons Learned

- Impacted groups meet regularly & involve all affected parties early
- Trust, integrity and respect very important
- Standard processes and Best Practices

CREATE Engineering Committee

Benefits

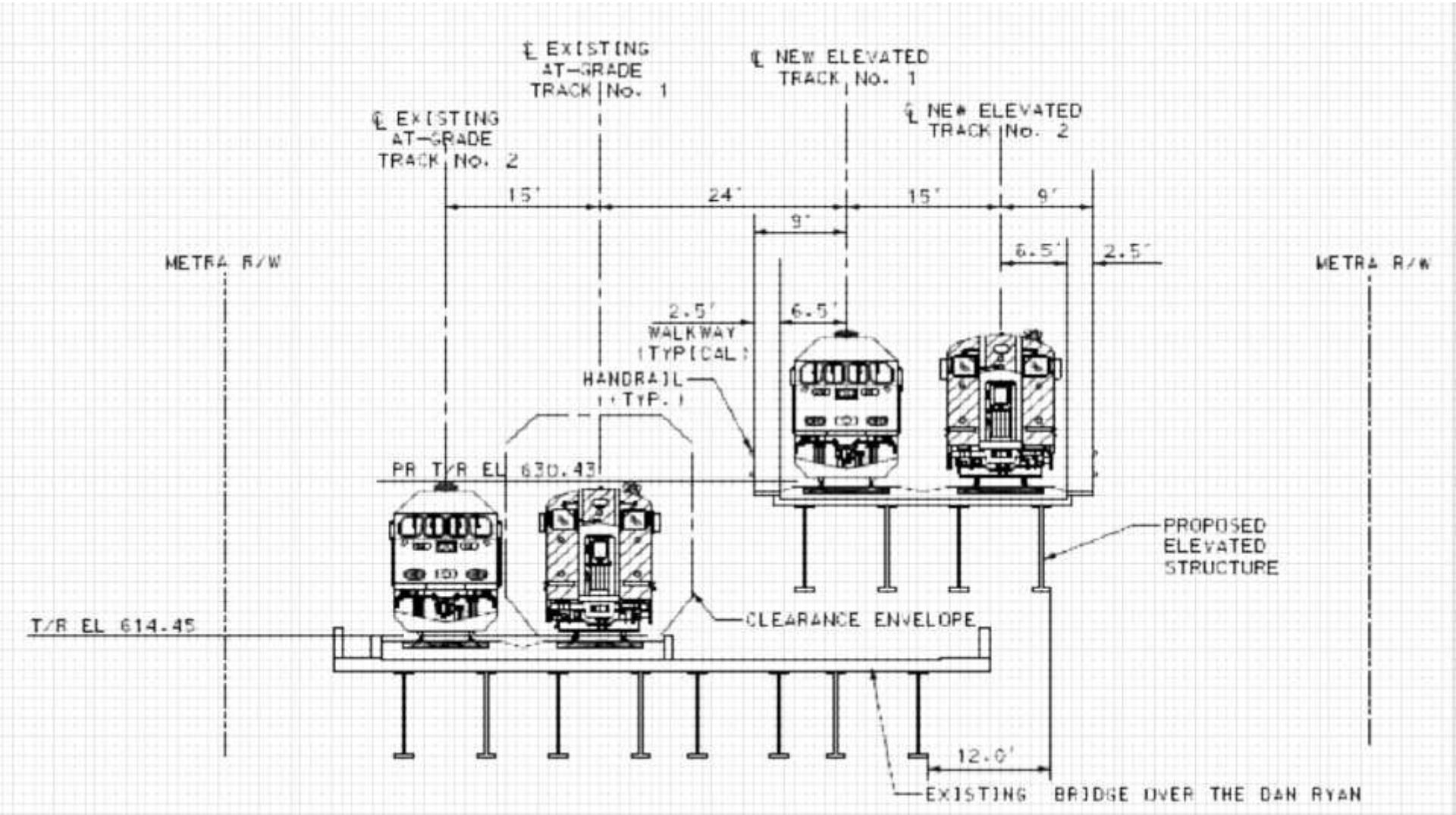
- Communications = continued progress = success

Forward efforts

- Develop financial control mechanism
- Coordinate on developing issues that impact CREATE (i.e. CTA future Airport Express)
- Continue to monitor technical aspects of public involvement
- Project Controls – document control, version control, collaboration…….

Engineering Committee Output - Proposed Alignment METRA over the NS, CN & Dan Ryan (P-1)

Engineering Committee Output - Proposed Cross Section METRA over the Dan Ryan (P-1)

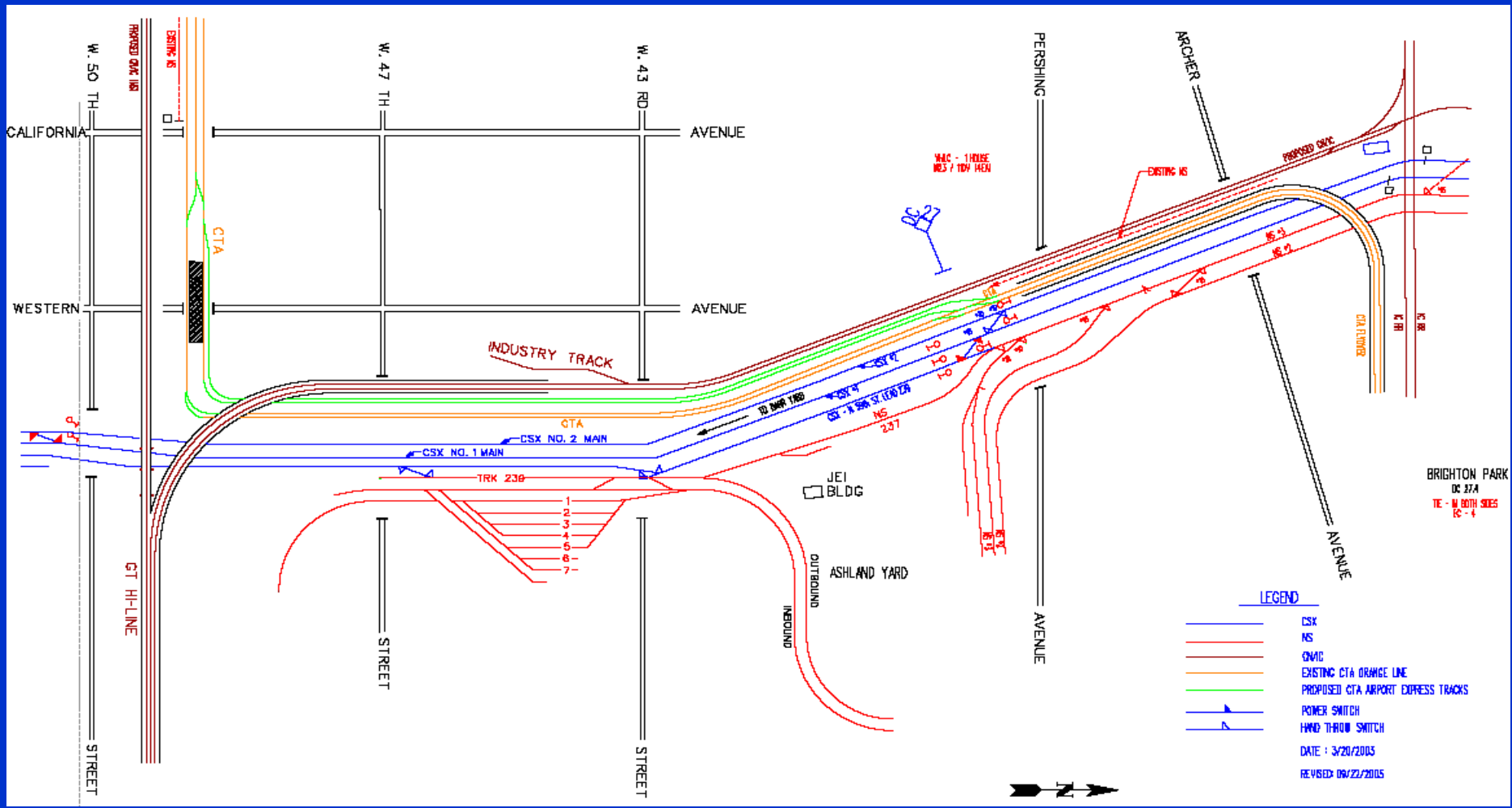


Engineering Committee Output
CREATE Best Practice
Log of Risks - Potential Impact on Schedule or Cost

No	Entry Date	Project	Risk	Issue	Solution	Issue Resolved	Resolution
1	April 2005	WA-3	LOW	Air quality analysis.		June 28, 2005	Benesch/Huff & Huff completed the analysis. ECAD documents updated to reflect the results.
3	April 2005	B-3 and WA-3	HIGH	FHWA to decision on special waste.		No	

Engineering Committee Output – External Communication Tool for Public Involvement (P-4)

Engineering Committee Output - Communication Tool & Leverage (CTA Airport Express & C-6)



Current Status of the CREATE Program

- Projects Underway – IDOT Contracts
  - TranSystems Corporation: P-1
  - Edwards & Kelcey Design Services: P-2, P-3, & EW-2
  - Hanson Professional Services: Beltway Corridor
  - Alfred Benesch & Company: B-1 & 3, EW-4, WA-3 & 5
  - Parsons Transportation Group, Inc: Central Corridor

20 projects underway – Design 7% to 25% complete

ILLINOIS DEPARTMENT OF TRANSPORTATION
CHICAGO REGION ENVIRONMENTAL AND
TRANSPORTATION EFFICIENCY REPORT

CREATE
P2/P3/EW2 REMOVAL AND PROPOSED PLAN
EXISTING LAYOUT

DESIGNED BY: SWE
CHECKED BY: DCK
NOT TO SCALE

SUBMITTALS
DRAWING INTRODUCED: 10/14/05
REVISED SUBMITTED: 12/15/05
DRAWING ACCEPTED:

Illinois Department of Transportation

Edwards and Kelcey

( ) = TRACK OWNERSHIP/CONTROL
DISTANCES SHOWN ARE BETWEEN SIGNALS

N

SHT. NO.	SECTION	COUNTY	TOTAL SHEETS	PROJECT NO.
			3	L
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EW2 - WOOD AVENUE TO ROCKWELL
P2 - ABERDEEN STREET TO WOOD AVENUE
P2 - HAMILTON PARK TO ABERDEEN STREET
P3 - WOOD AVENUE TO LANDERS
EW2 - ABERDEEN STREET TO WOOD AVENUE
EW2 - 77TH STREET TO ABERDEEN STREET
EW2 - 77TH STREET TO 84TH STREET
P3 - LANDERS TO ASHBURN

Beltway Corridor - Hanson Professional Services

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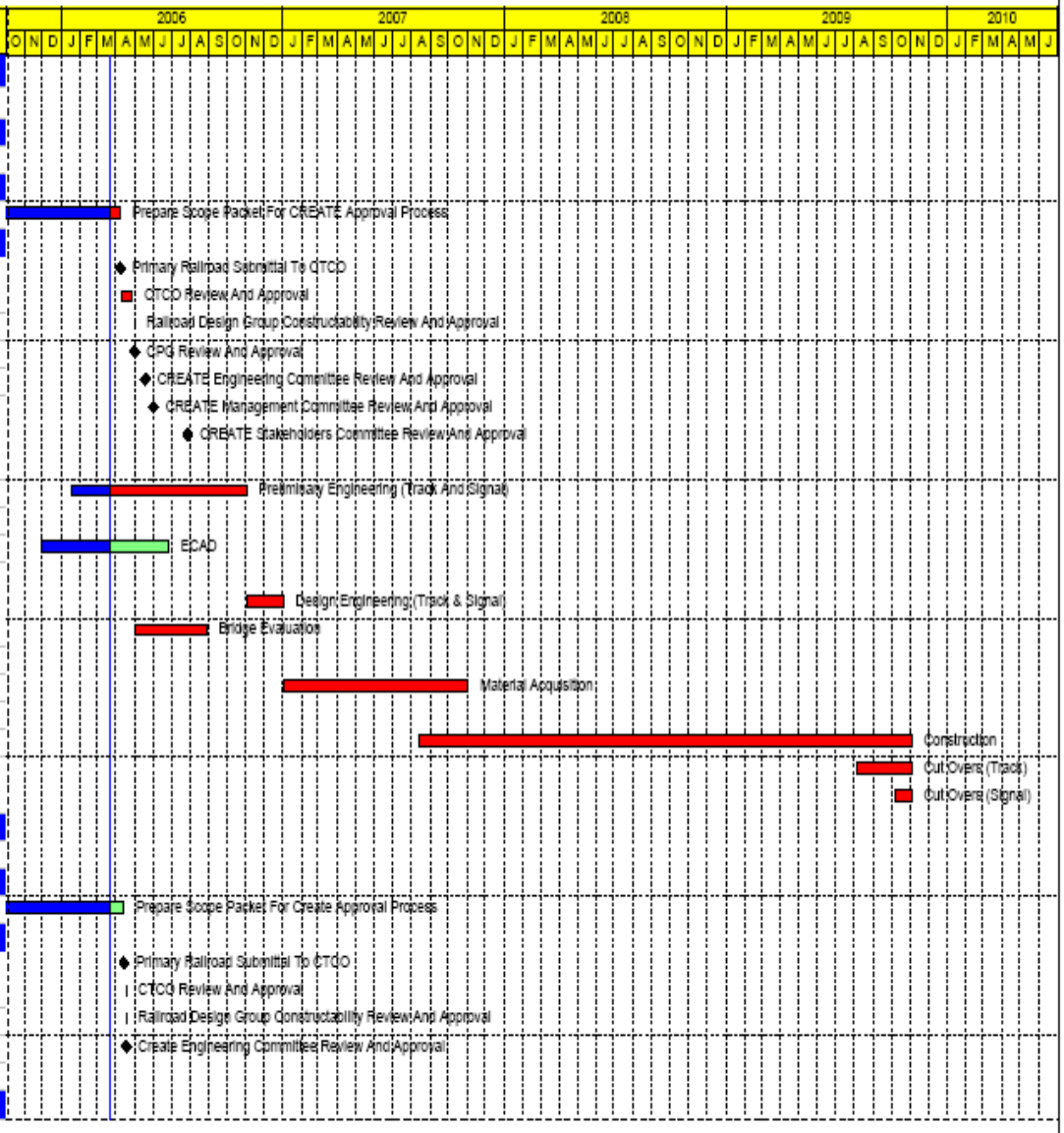
CREATE Master Schedule

BNSF Projects

Activity Name	Original Duration	Duration % Complete	Start	Finish
CREATE Program	**1024d**	**7.62%**	**06/20/05 A**	**11/03/09**
Western Avenue Corridor	1024d	7.62%	06/20/05 A	11/03/09
WA4 - BNSF Horseshoe	**1024d**	**7.62%**	**08/15/05 A**	**11/03/09**
Conceptual Design	136d	32.61%	08/15/05 A	07/27/06
Scope Review	**20d**	**30%**	**08/15/05 A**	**04/07/06**
Prepare Scope Packet For CREATE Approval Process	20d	30%	08/15/05 A	04/07/06
Scope Approval	**79d**	**0%**	**04/07/06**	**07/27/06**
Primary Railroad Submittal To CTCO	0d	0%		04/07/06
CTCO Review And Approval	15d	0%	04/10/06	04/28/06
Railroad Design Group Constructability Review And Approva	1d	0%	05/01/06*	05/01/06
CPG Review And Approval	0d	0%		05/01/06*
CREATE Engineering Committee Review And Approval	0d	0%		05/16/06*
CREATE Management Committee Review And Approval	0d	0%		06/01/06*
CREATE Stakeholders Committee Review And Approval	0d	0%		07/27/06
Preliminary Engineering	163d	0%	01/17/06 A	11/02/06
Preliminary Engineering (Track And Signal)	163d	0%	01/17/06 A	11/02/06
Environmental	129d	44.96%	12/01/05 A	06/27/06
ECAD	129d	44.96%	12/01/05 A	06/27/06
Design Engineering	177d	0%	05/01/06	01/02/07
Design Engineering (Track & Signal)	43d	0%	11/03/06*	01/02/07
Bridge Evaluation	86d	0%	05/01/06*	08/28/06
Procurement	218d	0%	01/03/07	11/02/07
Material Acquisition	218d	0%	01/03/07*	11/02/07
Construction	582d	0%	08/13/07	11/03/09
Construction	582d	0%	08/13/07*	11/03/09
Cut Overs (Track)	65d	0%	08/05/09*	11/03/09
Cut Overs (Signal)	20d	0%	10/07/09*	11/03/09
WA5 - Corwith Tower Elimination	**934d**	**8.35%**	**06/20/05 A**	**06/30/09**
Conceptual Design	66d	68.18%	06/20/05 A	04/18/06
Scope Review	**20d**	**5%**	**06/20/05 A**	**04/14/06**
Prepare Scope Packet For Create Approval Process	20d	5%	06/20/05 A	04/14/06
Scope Approval	**2d**	**0%**	**04/14/06**	**04/18/06**
Primary Railroad Submittal To CTCO	0d	0%		04/14/06
CTCO Review And Approval	1d	0%	04/17/06	04/17/06
Railroad Design Group Constructability Review And Approva	1d	0%	04/18/06	04/18/06
Create Engineering Committee Review And Approval	0d	0%		04/18/06
Preliminary Engineering	119d	37.82%	01/17/06 A	06/30/06
BNSF	**54d**	**0%**	**01/17/06 A**	**06/02/06**



Actual Work
Remaining Work
Critical Remaining Work
Milestone

CONFIDENTIAL DRAFT

Revised: 03/09/06 15:31

Printed: 03/09/06 at 15:31

Data Date: 03/21/06

Systematic, **P**roject **E**xpediting, **E**nvironmental **D**ecision-making

SPEED

A New Strategy for CREATE Project Development Consistent with NEPA
Developed by FHWA and IDOT

- Addresses the entire CREATE Program
- Supports Systematic Decision Making
- Accelerates Low Risk Component Projects
- Assesses Potential Environmental Impacts

CREATE/NEPA SUCCESS

Project Development / NEPA Assessment Strategy

CREATE

- Implement Projects without Delay
- Increase Opportunities
- Maximize Benefits

NEPA

- Public Confidence in the Process
- Avoid or Minimize Impacts
- Maximize Environmental Benefits

Key Design Elements

- Minimize Project Limits & Impacts
- Constructability of Proposed Structures & Retaining Walls
- Clearance & Grade
- Track Geometrics
- Modifications to Existing Bridges & Structures
- Existing Rail Crossings
- Signaling
- Roadways
- Detours
- Aesthetics

Construction Staging – Big Deal for Railroads

Staging Options – the delicate operational balance

- Offline Construction Allowing Uninterrupted Rail and Construction Operations
- Railroad Detours and Uninterrupted Construction
- Restricted Railroad and Construction Operations
- Staged Construction During Scheduled Railroad Outages

Coordination with nearby public projects

Offline Construction Allowing Uninterrupted Rail and Construction Operations

Restricted Railroad and Construction Operations

Staged Construction During Scheduled Railroad Outages & Windows of Available Time

Web Site:

www.CreateProgram.org

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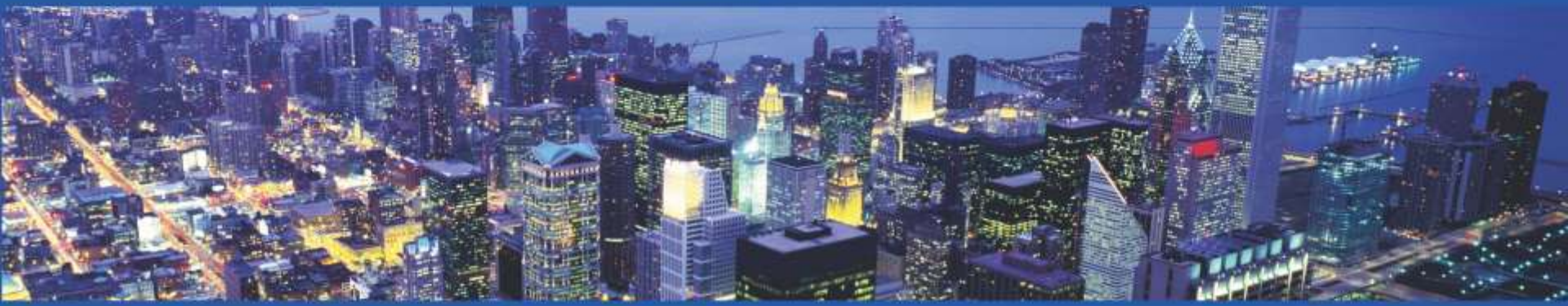

KEEPING THE GO IN CHICAGO