Benefits of a One-Gantry Solution

An Integrator's Perspective

by Robert Landry

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- Project Team
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  - Mounting and Location of Sensors
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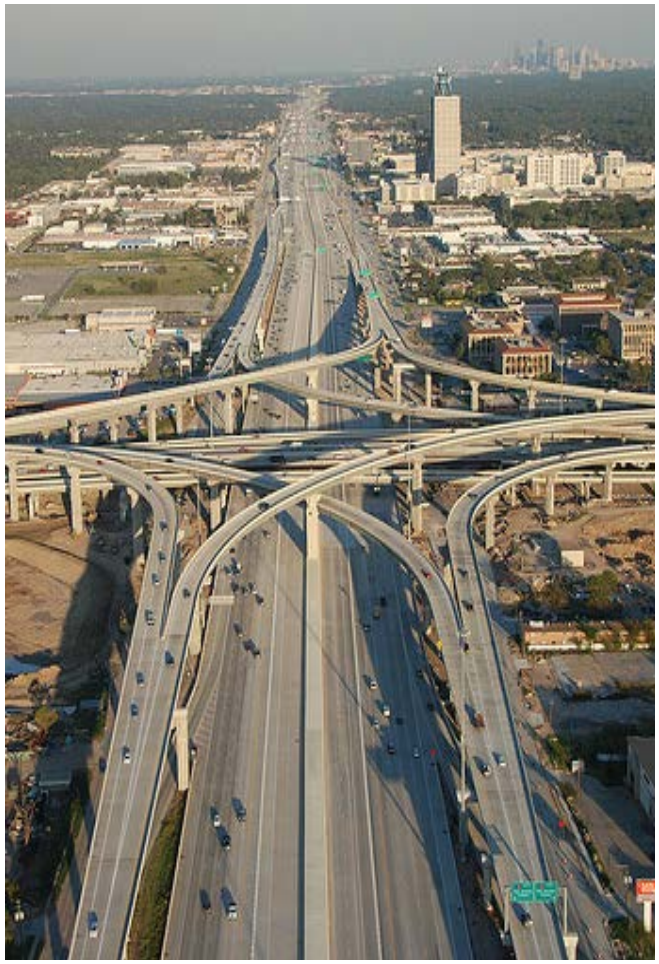
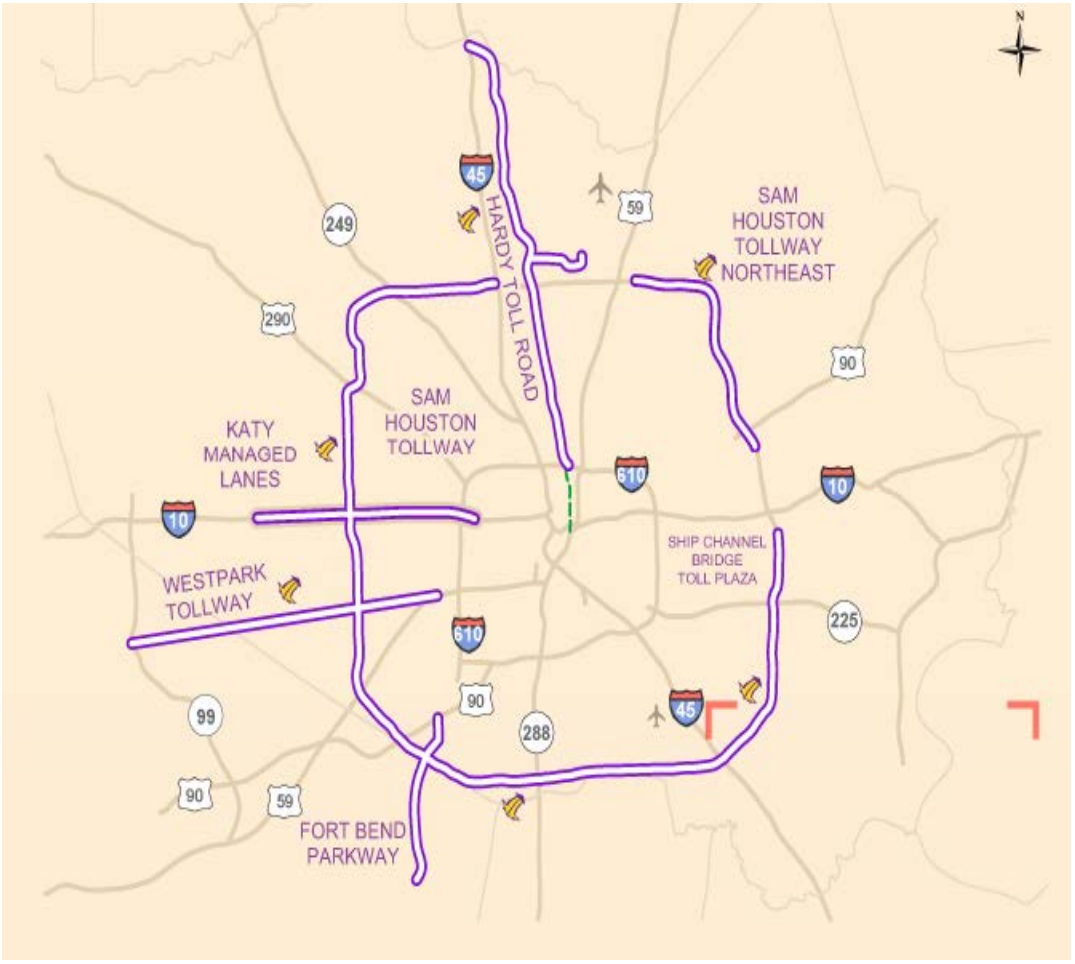
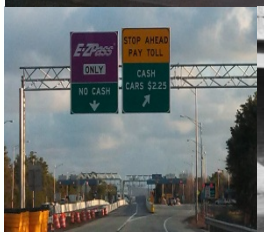
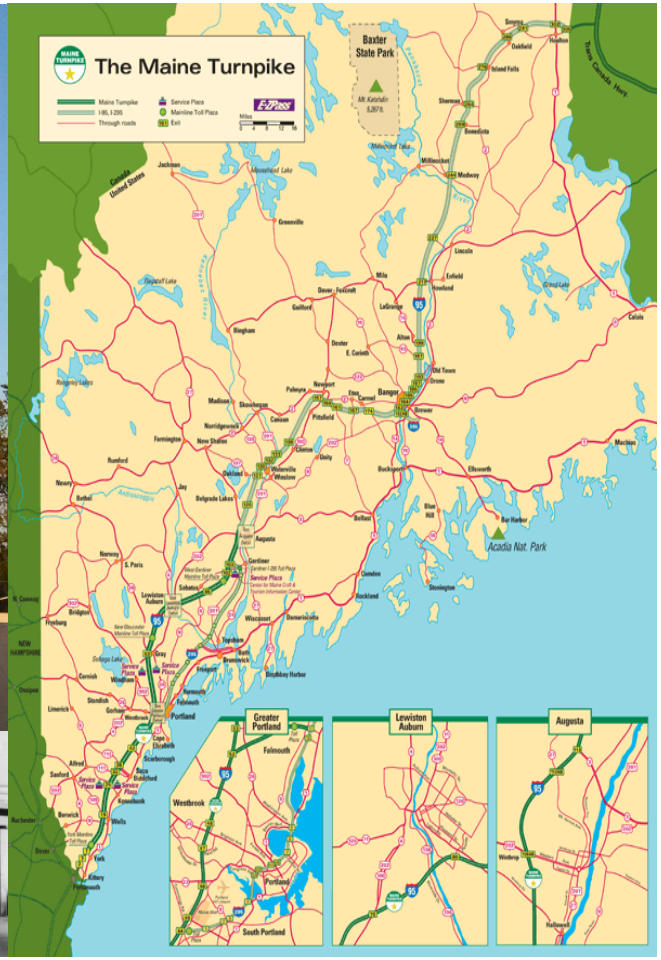
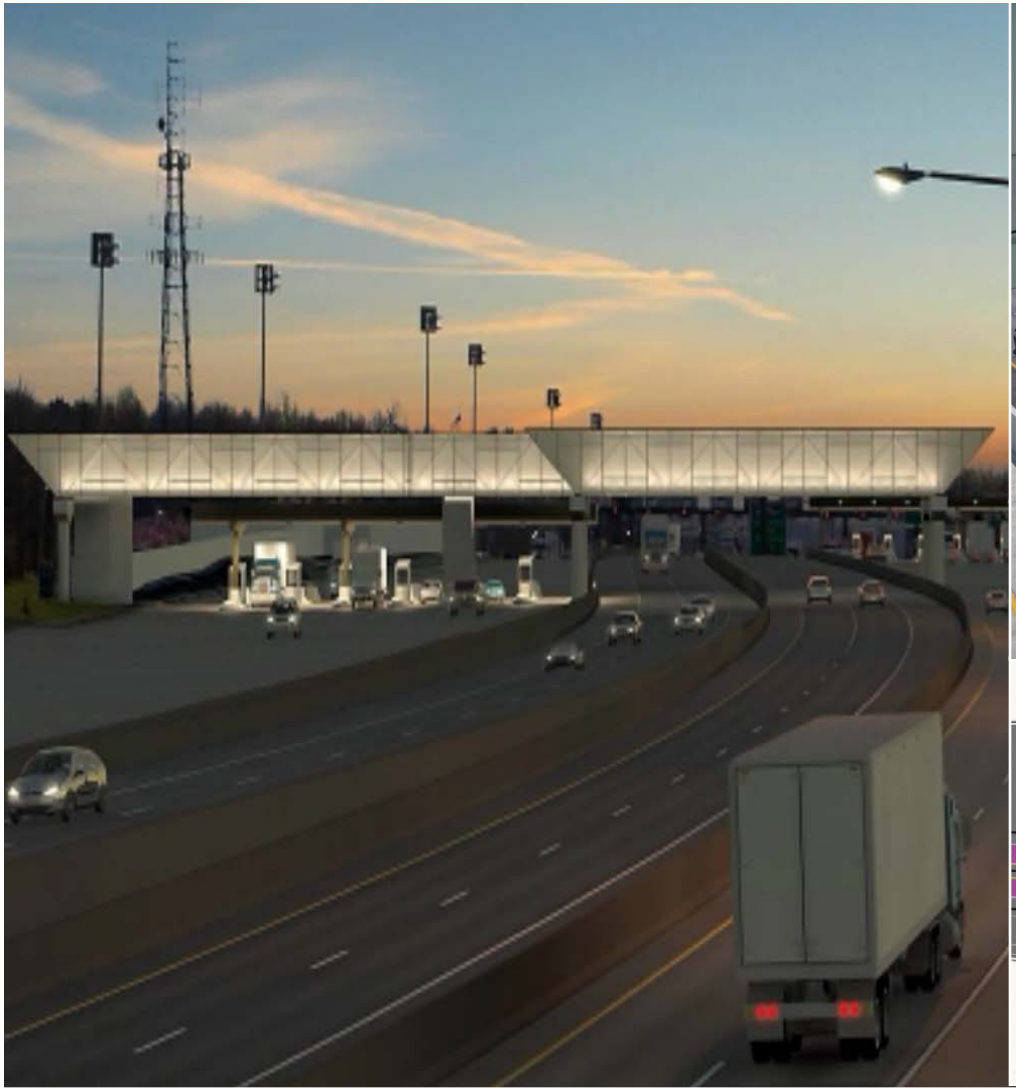


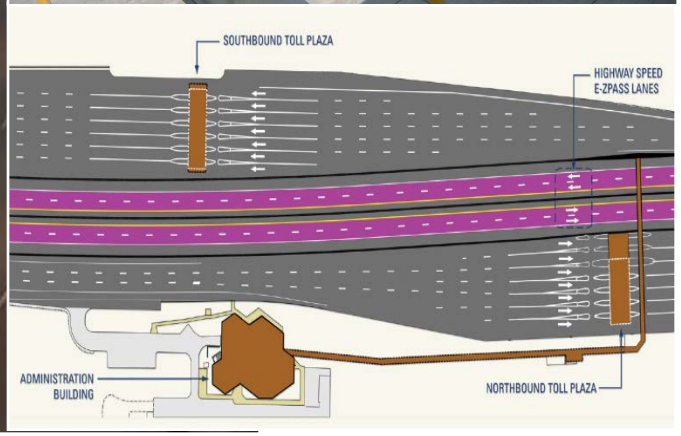

HARDY TOLL ROAD
SAM HOUSTON TOLLWAY NORTHEAST
SAM HOUSTON TOLLWAY
KATY MANAGED LANES
WESTPARK TOLLWAY
SHIP CHANNEL BRIDGE TOLL PLAZA
FORT BEND PARKWAY
45
59
249
290
90
610
10
225
99
288


E-ZPass
ONLY
NO CASH
STOP AHEAD
PAY TOLL
CASH
CARS $2.25


MAINE TURNPIKE


The Maine Turnpike
Baxter State Park
Acadia Nat. Park
Greater Portland
Lewiston Auburn
Augusta




SOUTHBOUND TOLL PLAZA
HIGHWAY SPEED
E-ZPASS LANES
ADMINISTRATION
BUILDING
NORTHBOUND TOLL PLAZA


TxTag
TxTag
TxTag


CENTRAL TEXAS TOLL ROADS
Liberty Hill
Georgetown
Leander
Hutto
Round Rock
Cedar Park
Pflugerville
Manor
Austin
Creedmoor
TOLL ROADS OPEN
UNDER CONSTRUCTION
FUTURE TOLL ROAD WHEN FUNDING IS AVAILABLE
TxTAG CUSTOMER SERVICE CENTER

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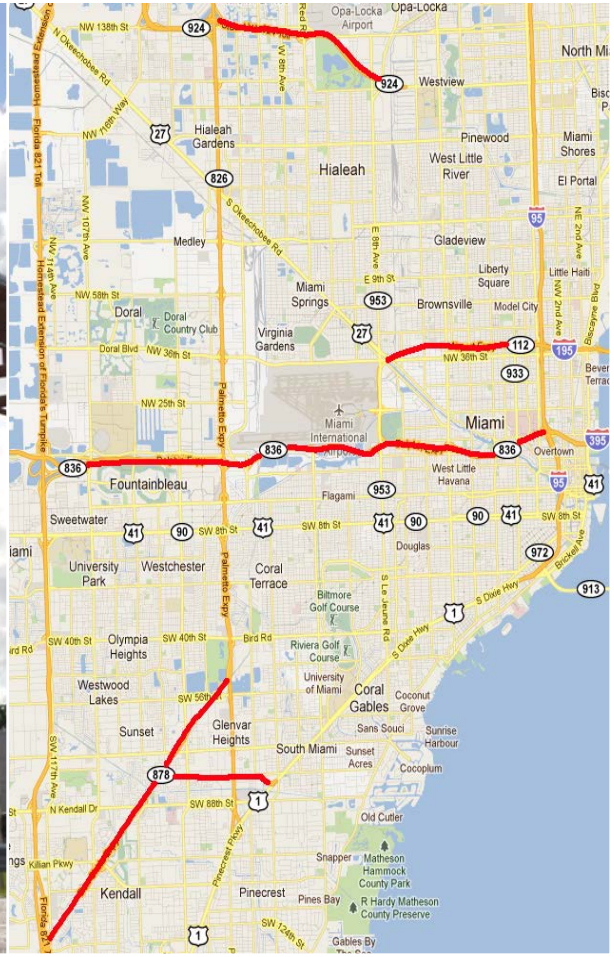
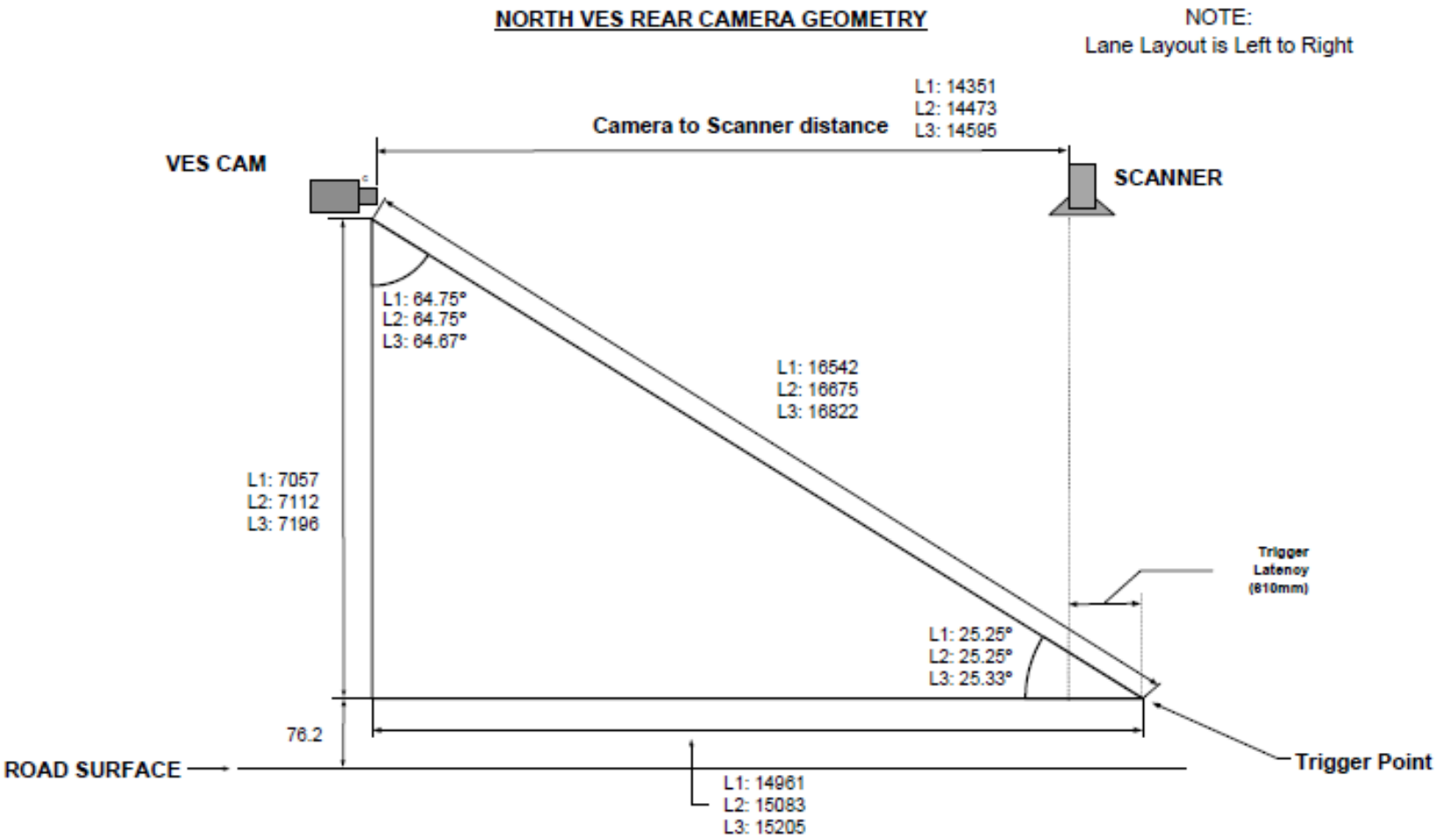

Opa-Locka Airport
Opa-Locka
NW 138th St
924
Westview
North Miami
Hialeah Gardens
Hialeah
Pinewood
West Little River
Miami Shores
El Portal
826
Medley
Gladeview
Liberty Square
Miami Springs
Brownsville
Model City
Doral
Doral Country Club
Virginia Gardens
NW 58th St
NW 36th St
112
933
NW 25th St
Miami International Airport
Miami
Overtown
836
Fountainbleau
West Little Havana
Flagami
953
Sweetwater
SW 8th St
Douglas
University Park
Westchester
Coral Terrace
Biltmore Golf Course
Olympia Heights
Bird Rd
Riviera Golf Course
Westwood Lakes
University of Miami
Coral Gables
Coconut Grove
Sunset
Glenvar Heights
Sans Souci
Sunrise Harbour
South Miami
Sunset Acres
Cocoplum
878
Old Cutler
Snapper
Matheson Hammock County Park
Kendall
Pinecrest
Pines Bay
R Hardy Matheson County Preserve
SW 124th St
Gables By

Measure Twice Cut once!

Critical Geometry



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Gantry Configuration and Design

- Configuration
  - Space Frame or Box Frame
  - Three Gantry Solution
  - Dual Gantry Solution
  - Single Gantry
- Accessibility
- Equipment Shelter
- Construction
- Aesthetics

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Maintenance

- Accessible Gantry Designs
  - Access Ladders
  - Grated Walkway
  - Accessible Equipment Mounting
- Quick Disconnect Mounting
- Slide-in or Swing-in Mounting

Working out the Bugs and Maintenance

Maintenance Accessible Gantry

Equipment Accessible Walkway

Quick Disconnect Mounting

Slide-in or Swing-in Mounting

Lift Access

One-Gantry Design – Pros and Cons

- Space Considerations
  - Length of Tolling Zone
  - Proximity to Other Structures
  - Curve and Pitch of the Road
  - Space available for Structures
- Design Complexity
  - Less is more?
  - Track and associate

Questions