

Writing an Express Schedule for Commuter Rail Service

Metra

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Agenda

- Commuter Rail Scheduling
- Adding Weekend Express Service
- Expanding to Weekday
- Adjustments
- Conclusion

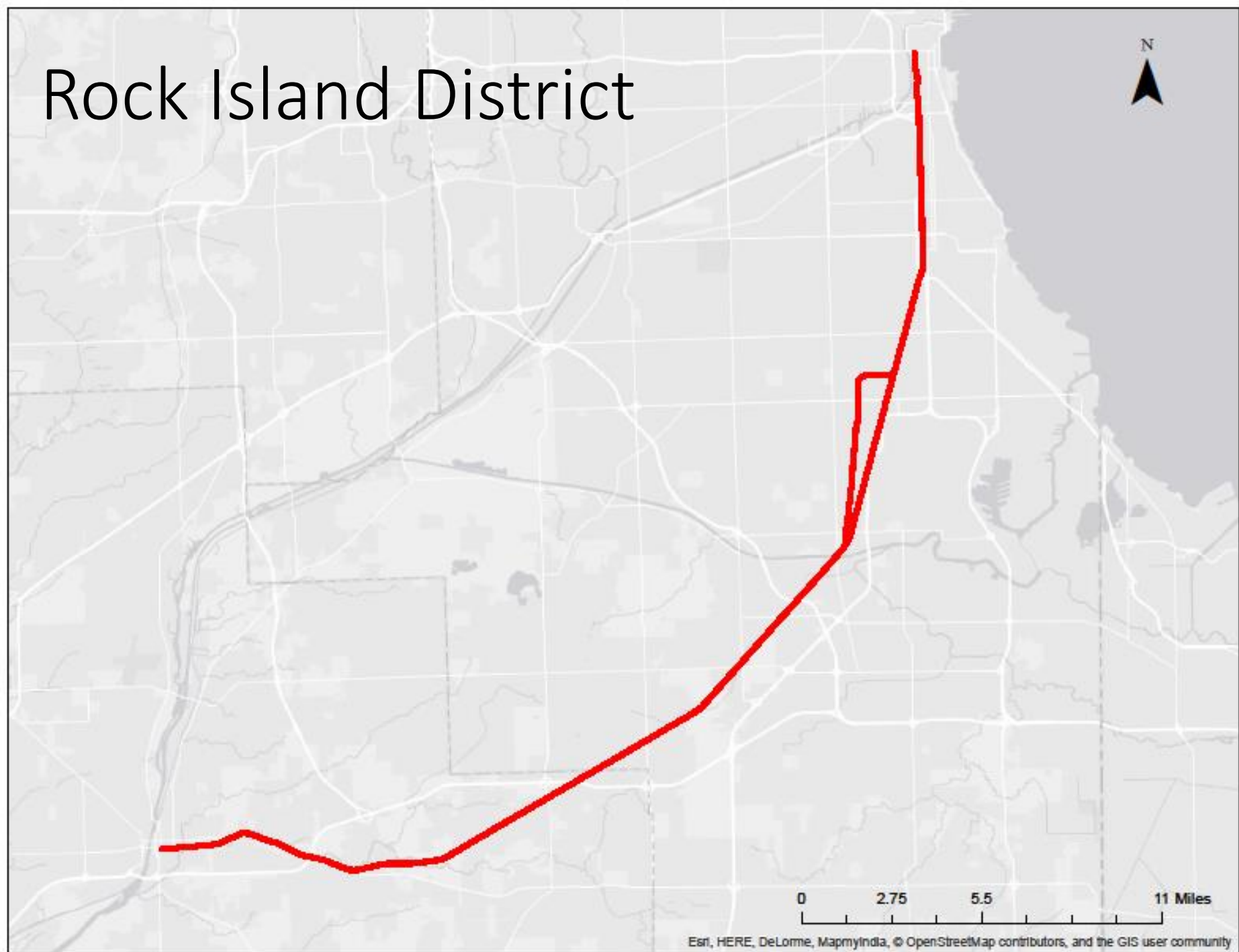
What is Commuter Rail Scheduling?

- Construction/Special Events
- Minor service adjustments based on demand and available resources
- Less frequent larger changes

Goals

- Develop weekend express service on the Rock Island Line
- Preserve existing level of service for intermediate stations
- Implement pilot period to gauge interest

Rock Island District



Weekend Express Schedule

- Split service schedule effective June 6 to November 29, 2015
- Increased ridership and received good feedback
- Made permanent November 30th, 2015

Rock Island District Stations – All Previous Trains

LaSalle St. Station

35th/ “Lou” Jones

Gresham

95th St. – Longwood

103rd St. – Washington Hts.

Brainerd

91st St. - Beverly Hills

95th St. - Beverly Hills

99th St. - Beverly Hills

103rd St. - Beverly Hills

107th St. - Beverly Hills

111th St. - Morgan Park

115th St. - Morgan Park

119th St.

123rd St.

Prairie St.

Blue Island – Vermont St.

Robbins

Midlothian

Oak Forest

Tinley Park

Tinley Park – 80th Ave.

Mokena – Hickory Creek

Mokena – Front St.

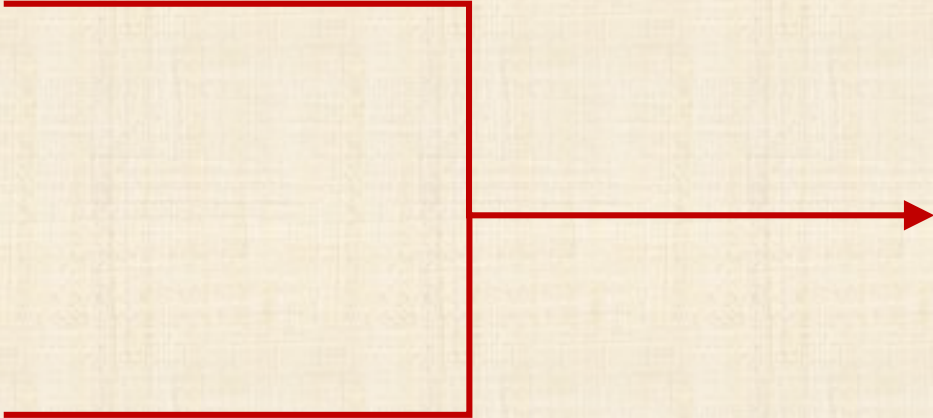
New Lenox

Joliet

Express Service Split

Rock Island District Main Line

LaSalle St. Station
35th/ "Lou" Jones
Gresham
95th St. – Longwood
103rd St. – Washington Hts.



Blue Island – Vermont St.
Robbins
Midlothian
Oak Forest
Tinley Park
Tinley Park – 80th Ave.
Mokena – Hickory Creek
Mokena – Front St.
New Lenox
Joliet

Rock Island District Beverly Branch

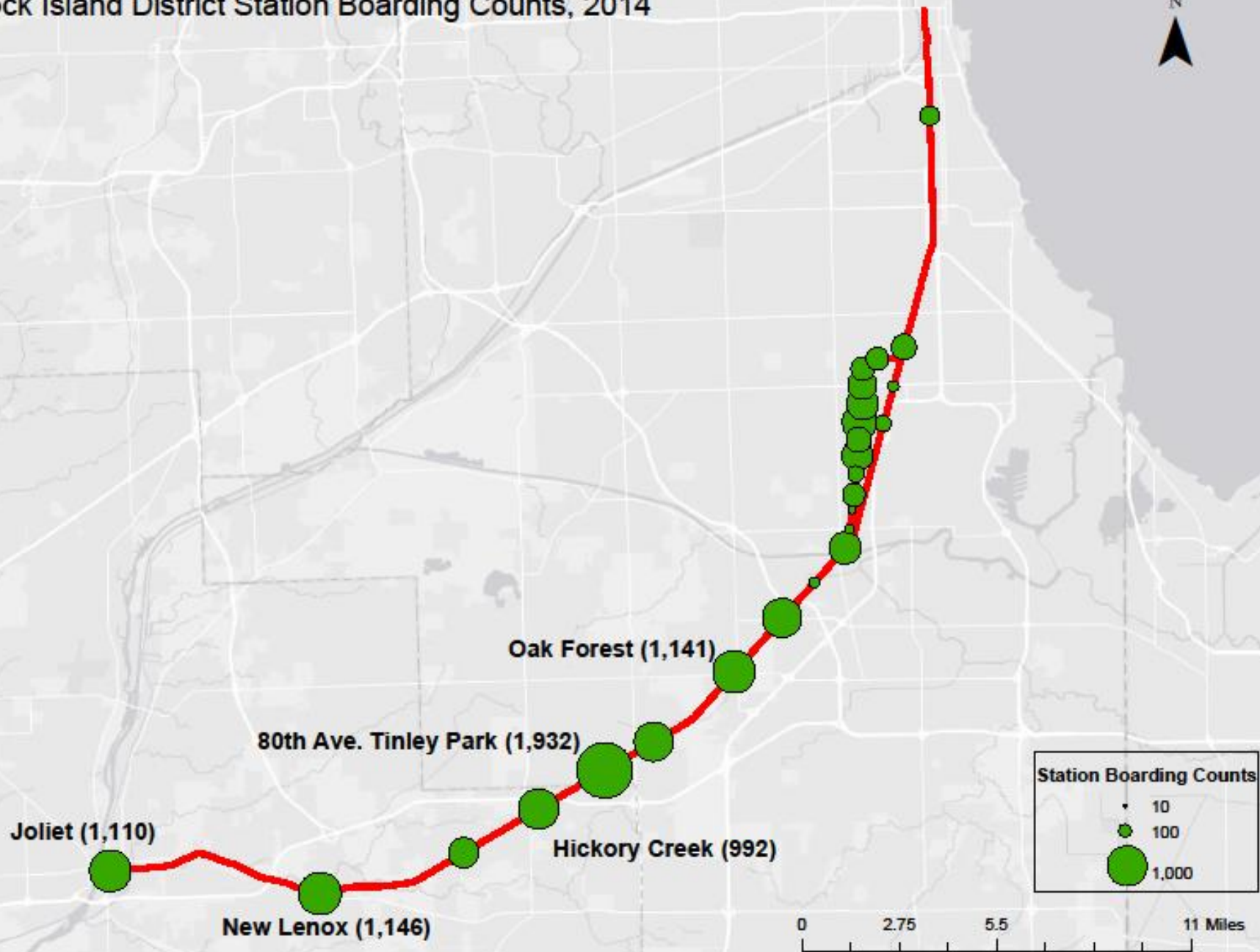
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Prairie St.
Blue Island – Vermont St.

Weekday Express Schedule

- Blue Island expresses already exist on weekdays
- Larger challenge to create without revamping weekday entire schedule
- Goal to create an express to a busier outlying station

Rock Island District Station Boarding Counts, 2014

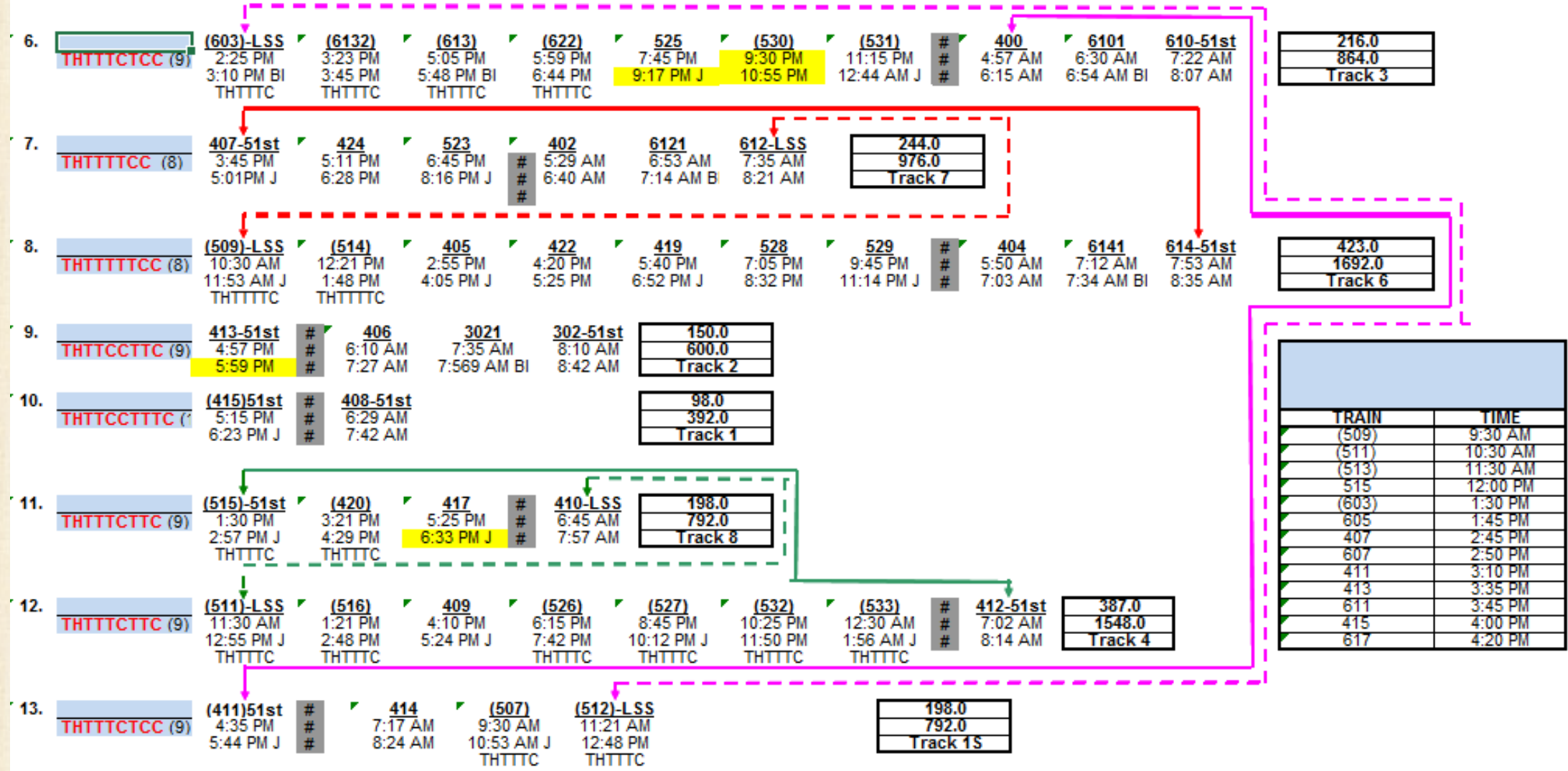


Analysis

- Station Boarding count
- Train Passenger Counts
- Infrastructure
- Equipment cycles

Equipment Cycles

JOLIET COACH YARD (71 Cars):



Analysis Results

- AM inbound express required reconfiguring almost the entire inbound schedule
- PM outbound had equipment available for an express
 - Determined to express to Tinley Park - 80th Avenue
 - Also would alleviate a crowded later train by adding a stop at Joliet

Implementation

- Express train was well received with high ridership . . .
- But received many complaints about later PM peak trains
- GPS and dispatching records showed that later trains were incurring delays

Adjustments Needed

- Deep dive:
 - Analyzed GPS/Dispatching data daily
 - Management rode trains to document times
 - Used different engineers to operate trains to rule out human error
 - Interviewed train crews
- Discovered legacy signal system was showing more restrictive signals than it should have
- Other minor schedule adjustments were necessary

New February 2016 Schedule

- Complaints immediately addressed with changes
- Trains operating as intended
- Increased weekday outbound ridership

Conclusion

- Customers love express service – who wouldn't?
- Studying other lines and times to implement new express service where feasible
- Ensure that any schedule change is monitored closely after implementation