Possible implementation of alternative fuels at the Joliet Intermodal Facility

Means

Engines:
- Cummins Westport ISLE 4.9 L, 235–320 hp
- MAD L.080-090 R engine
- US EPA & CARB 2010
- DNG, LNG, Biomethane
- Cummins Westport B Gas Plus 5.9 L, 195–270 hp
- MAD 080-090 R engine
- US EPA & CARB 2007
- ISLE, LNG, Biomethane
- Cummins Westport B LPG Plus 5.9 L, 195 hp
- MAD 080-090 R engine
- US EPA & CARB 2007
- UG

Existing Stations:
Number of Alternative Fueling Stations within 100 miles from Joliet, IL (by fuel type)
- Gas City: 148
- CNG: 32
- Ethanol: 26
- Hydrogen: 5
- Diesel: 0

Local Fuel Production:
- Locally Produced Alternative Fuels
- Biodiesel Production
- Hydrogen Production
- Ethanol Production

Analysis

Location:
- On Site
- I-55/Bluff Rd.
- I-80/I-55

Traffic to Station (4% of overall) 570 436 460
Parking area (ft^2) 13380 34 72000 140000
Parking area/traffic (ft^2/truck) 165.1 304.3
Ave. parking area/truck (ft^2/truck) 234.7
Pumps 6 4 6

Dimensions/Pump Number:
- Two existing stations analyzed
- Average daily traffic compared
- Number of pumps and parking lot sizes for Gas-City determined

Gas-City Alt Fuel Station Site
- O’Hare Oasis Gas Station
- Russell Rd. Truck Stop

Conclusions:
- It is theoretically possible to implement an alternative multi-fuel station in the Joliet area to accommodate increasing traffic flow to intermodal facility
- More analysis should be conducted to determine feasibility of such station

Result

Gas-City
Alternative Multi-Fuel Station:

Area Overview

Gas-City Floor Plan: