

CORRIDOR CITIES TRANSITWAY

AAC Operations Presentation





Agenda

- Operations Planning Process
- Operations Related CCT Premium Elements
- Safety and Security Elements



Operations Planning Process

- Ridership Forecasting
 - Daily and hourly ridership forecasts
 - Boardings and alightings by station
- Operations Planning
 - Required buses per hour
 - Bus fleet size



Ridership Forecasting (Regional Model)

- Ridership - key input into operations planning process
 - Sufficient service to comfortably accommodate estimated riders
- Customized version of Metropolitan Washington Council of Governments Regional Transportation Model
 - Model of regional transportation network
 - Model purposes:
 - Air quality conformity analysis
 - EPA Certification
 - Project planning
 - Results calibrated against actual data



Ridership Forecasting (Project Specific Model)

- Regional model further customized
 - Accurately reflect walk distances and access to transit
 - Accurately reflect how people choose modes
 - Accurately reflect non-work trips
- All results validated against actual real-world data
- Purple Line variant of the regional model
 - Certified by the Federal Transit Administration
- CCT model – customized version of Purple Line Model



Operations Planning

- Step 1 – Final Policy Guidelines
 - Vehicle type
 - 60' articulated vehicle with 60 seats
 - Diesel-Electric Hybrid
 - Acceptable maximum passenger load
 - 60 seated/30 standing passengers per vehicle (industry standard)
 - Services utilizing transitway
 - Only CCT branded vehicles
 - Two route patterns – CCT Direct and CCT via USG
 - No proposed changes to RideOn, WMATA, or local shuttle Networks
 - Ongoing co-ordination with agencies
 - Elements impacting CCT operations
 - Fare collection approach
 - Transit Signal Priority
 - Vehicle configuration



Los Angeles Metro - Orange Line



Lane Transit District (Eugene, Oregon) – Emerald Express (EmX) Green Line



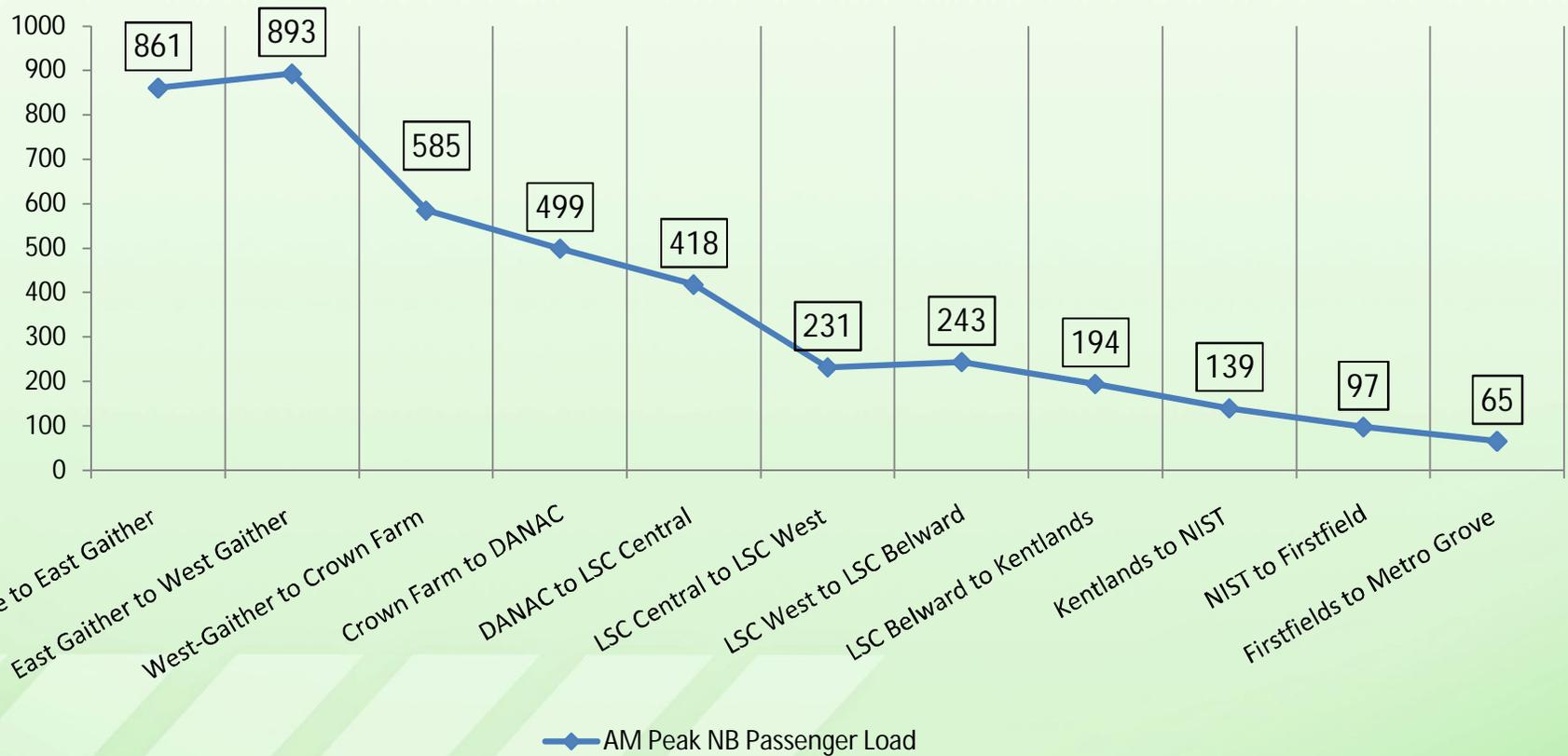
Operations Planning (cont.)

- Step 2 – Calculate required # of buses per hour
 - Ridership forecast - determine maximum passenger load location and hour
 - AM Peak
 - Mid-Day
 - Maximum load will dictate the required number of buses per hour



Operations Planning (cont.)

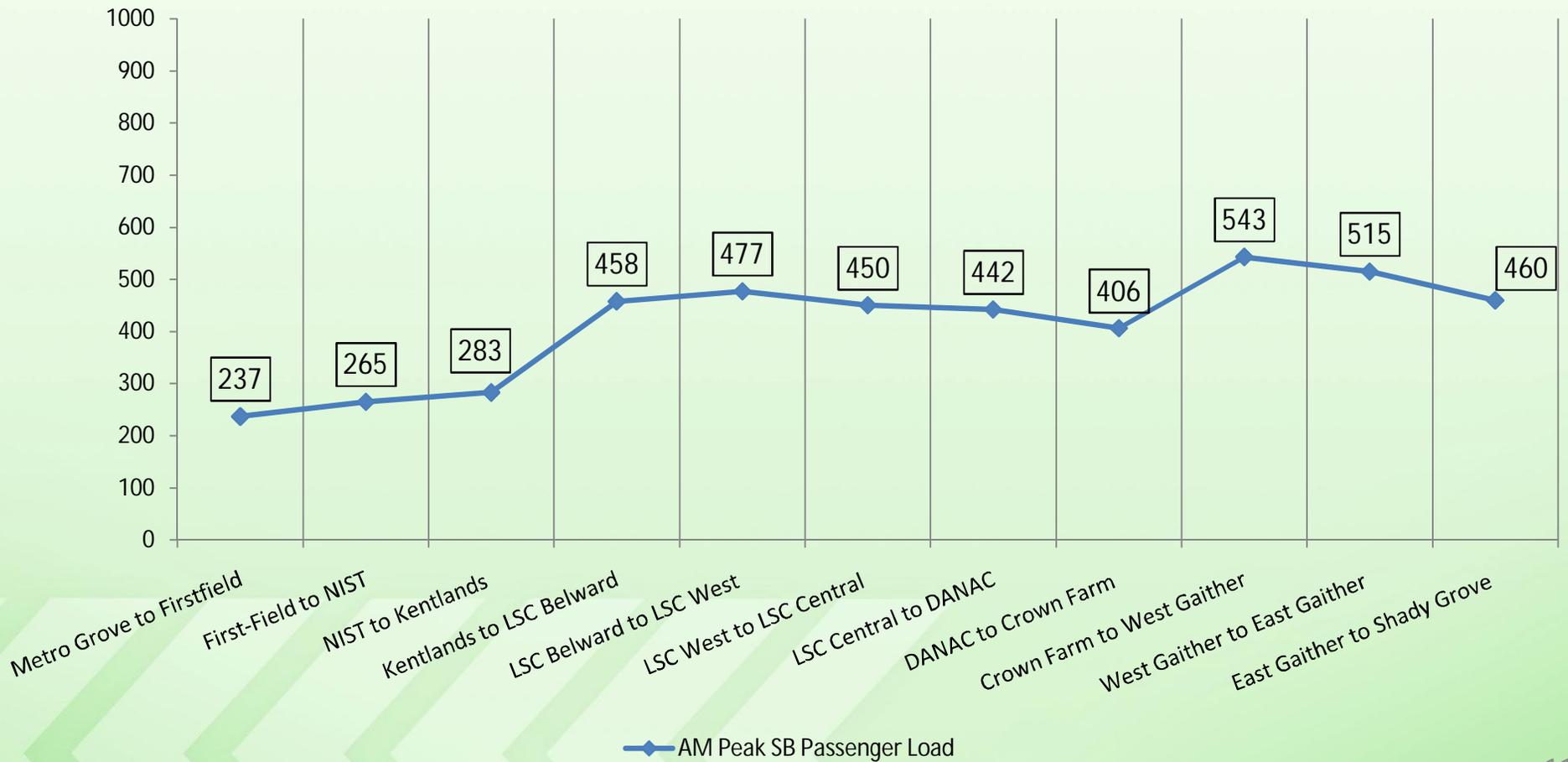
2020 CCT AM Peak Hour Northbound - Passenger Loads by Station-to-Station Link





Operations Planning (cont.)

2020 CCT AM Peak Hour Southbound - Passenger Loads by Station-to-Station Link





Operations Planning (cont.)

- Step 2 – cont.
 - Maximum Load – 893
 - Northbound between East Gaither and West Gaither
 - Required # of Bus Arrivals
 - $893/90$ passengers (allowable load) = 9.92 = 10 buses on CCT Direct required per hour to meet demand
 - Frequency = $60/10$ = a bus every 6 minutes



Operations Planning

- Step 3 – Required Service Frequency – All Times – Opening Year

Time of Day	CCT Direct Bus Arrival Frequency	CCT via USG Bus Arrival Frequency
Monday - Thursday		
4:30 AM - 6:00 AM	12	30
6:00 AM - 9:00 AM	6	15
9:00 AM - 3:00 PM	12	15
3:00 PM - 7:00 PM	6	15
7:00 PM - 1:00 AM	12	30
Friday		
4:30 AM - 6:00 AM	12	30
6:00 AM - 9:00 AM	6	15
9:00 AM - 3:00 PM	12	15
3:00 PM - 7:00 PM	6	15
7:00 PM - 3:00 AM	12	30
Saturday		
6:30 AM - 3:00 AM	12	30
Sunday		
6:30 AM - 1:00 AM	12	30



Operations Planning

- Step 4 – Calculate Opening Year Vehicle Requirements
 - CCT via USG – 7 vehicles
 - CCT Direct – 15 vehicles
 - Total Service Requirement = 22 vehicles
 - Spare Vehicle Requirement = 5 vehicles
 - 27 vehicles in fleet
- Full fleet estimate in 2035 – 39 vehicles



Operations Related CCT Premium Elements

- Dedicated transitway
 - Improved travel times and reliability
 - Separated from general traffic
 - Allows bus to bypass congestion
- High frequency service
- Simple and direct route patterns
- Branded service
- Premium vehicles
- Minimize time spent at stations
 - Off-board fare collection
 - Multiple doors on vehicle
- Passenger Information



Safety and Security Elements

- Vehicle
 - Voice annunciators
 - Closed Circuit TV
 - Silent Alarm
 - Voice Monitoring
 - Announcement signs
 - Driver public address system
- Stations
 - Emergency phones
 - Closed Circuit TV