



# Site Impacts of Incorporating On-Site Depot BEB Charging with Traditional Diesel / CNG Nightly Service Cycle

*Jewels Carter, Manager Bus Facilities Design*

Our Focus Within WSP

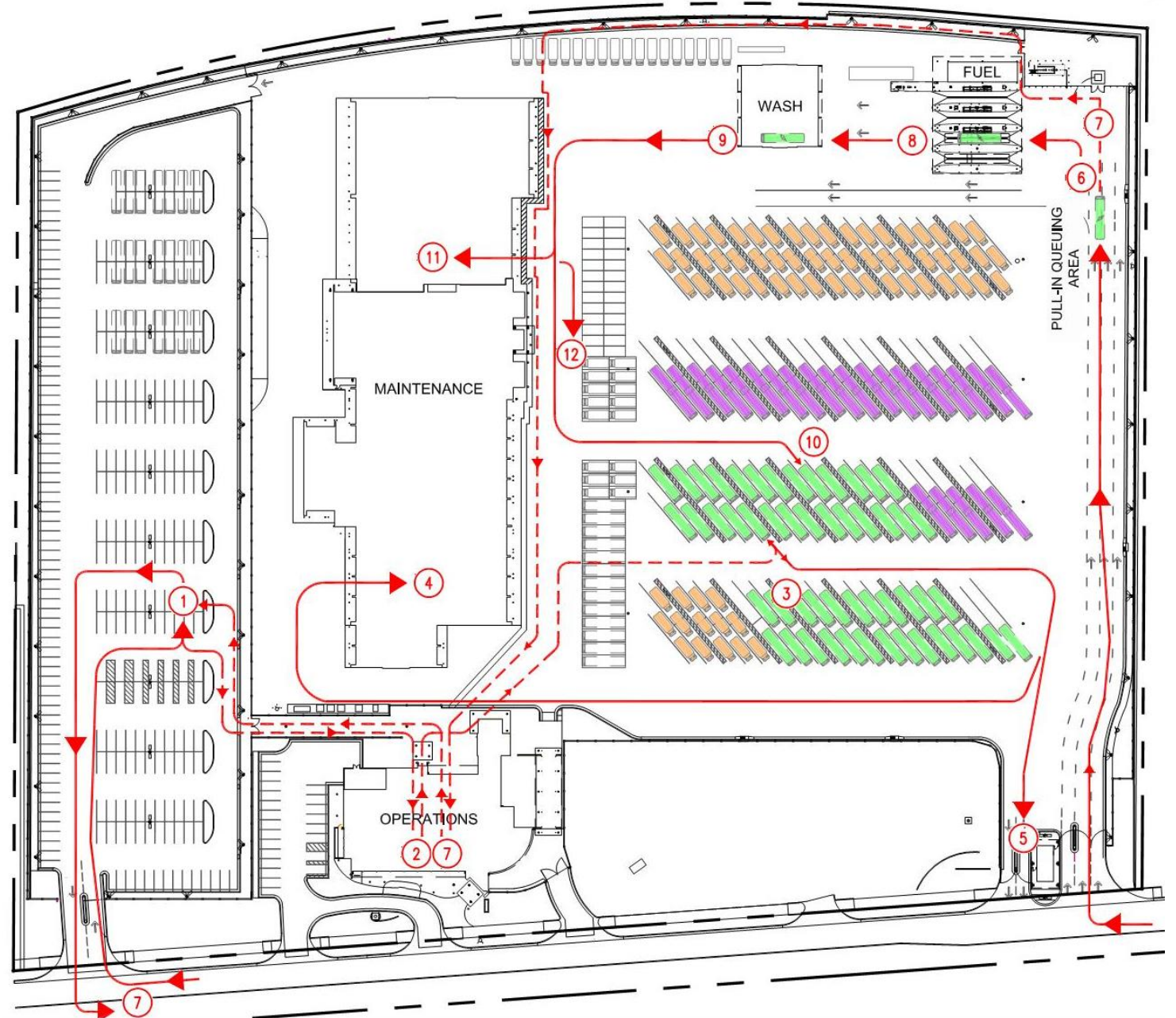
# Fleet & Facilities Division

700+ O&M  
in North  
America



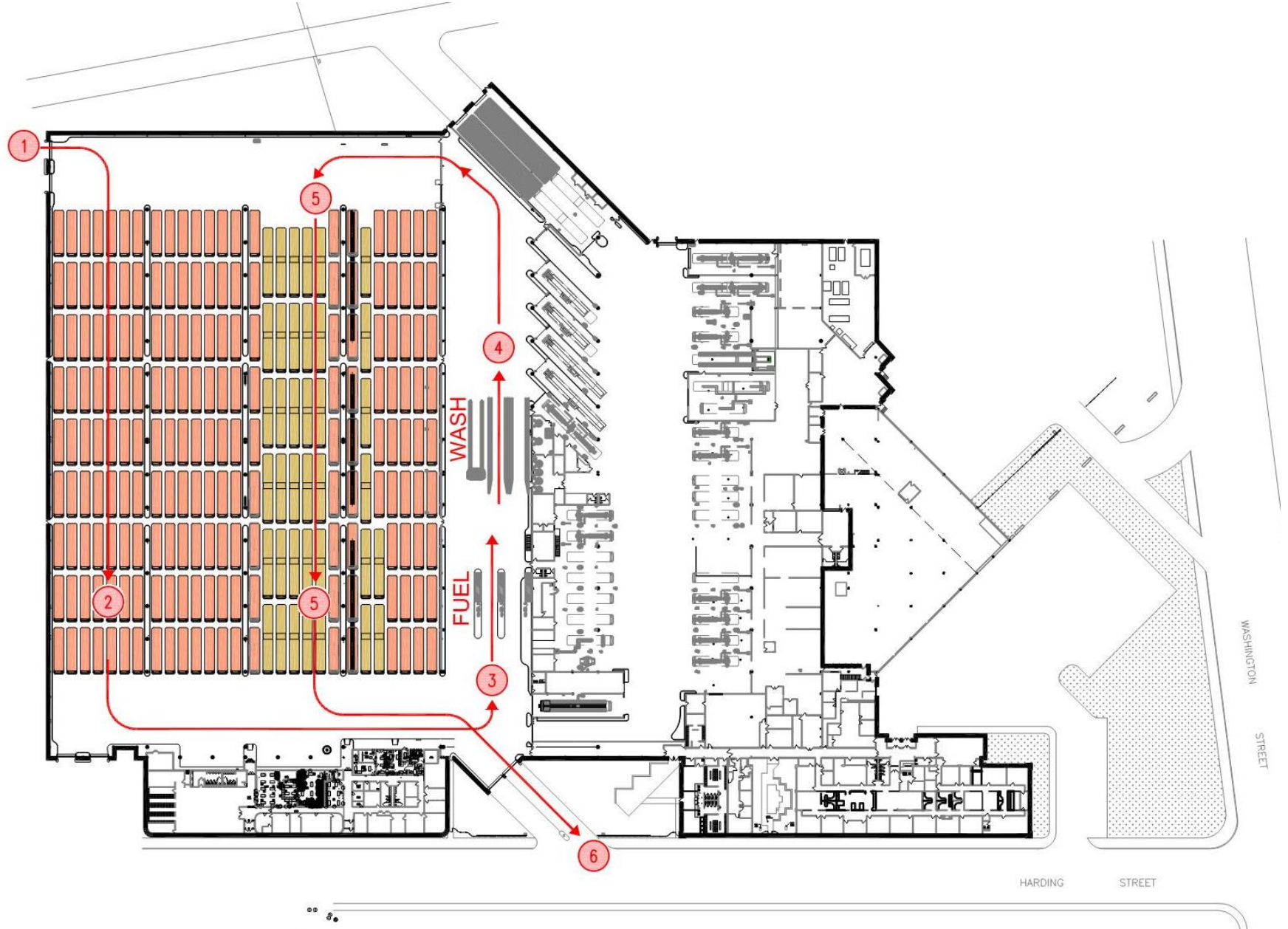
# Traditional Diesel / CNG Nightly Service Cycle

**Warm  
Weather  
Facility**



# Traditional Diesel / CNG Nightly Service Cycle

**Cold  
Weather  
Facility**



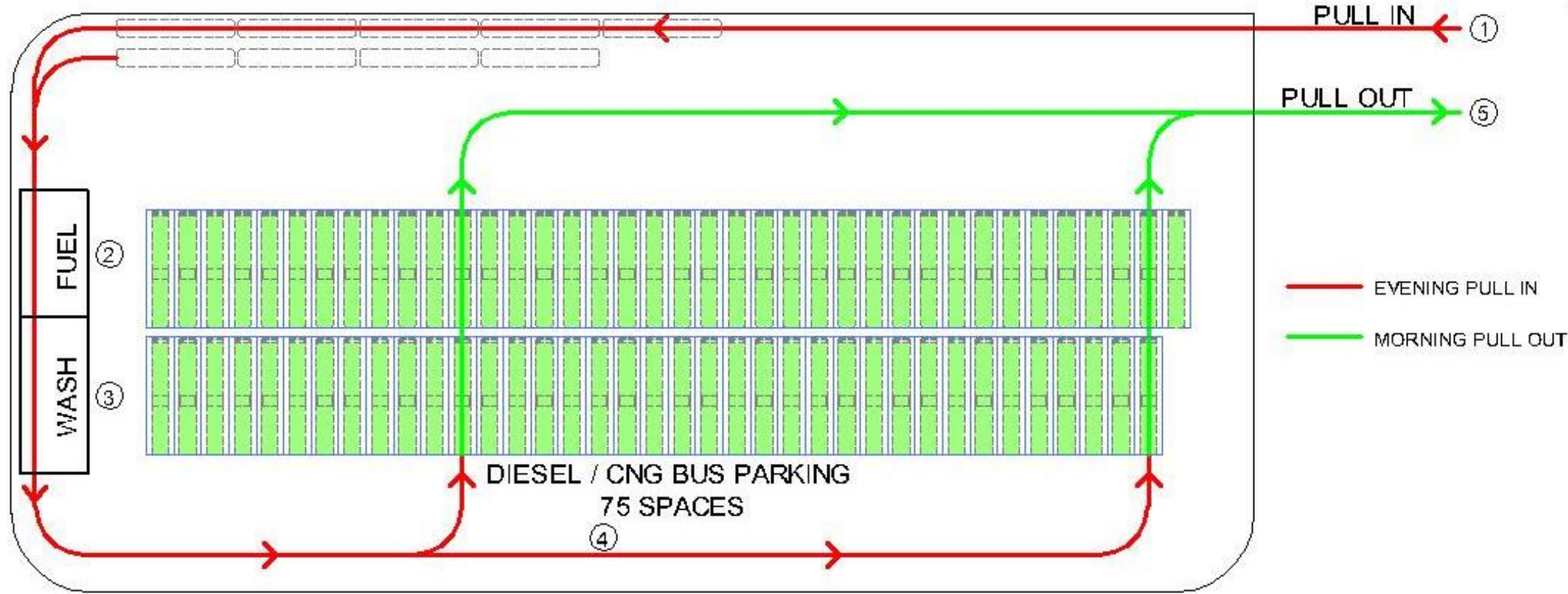
# BEB Depot Charging Nightly Service Cycle Options

➤ **Shared Position Charging**

**or**

➤ **Charge in Parking Space**

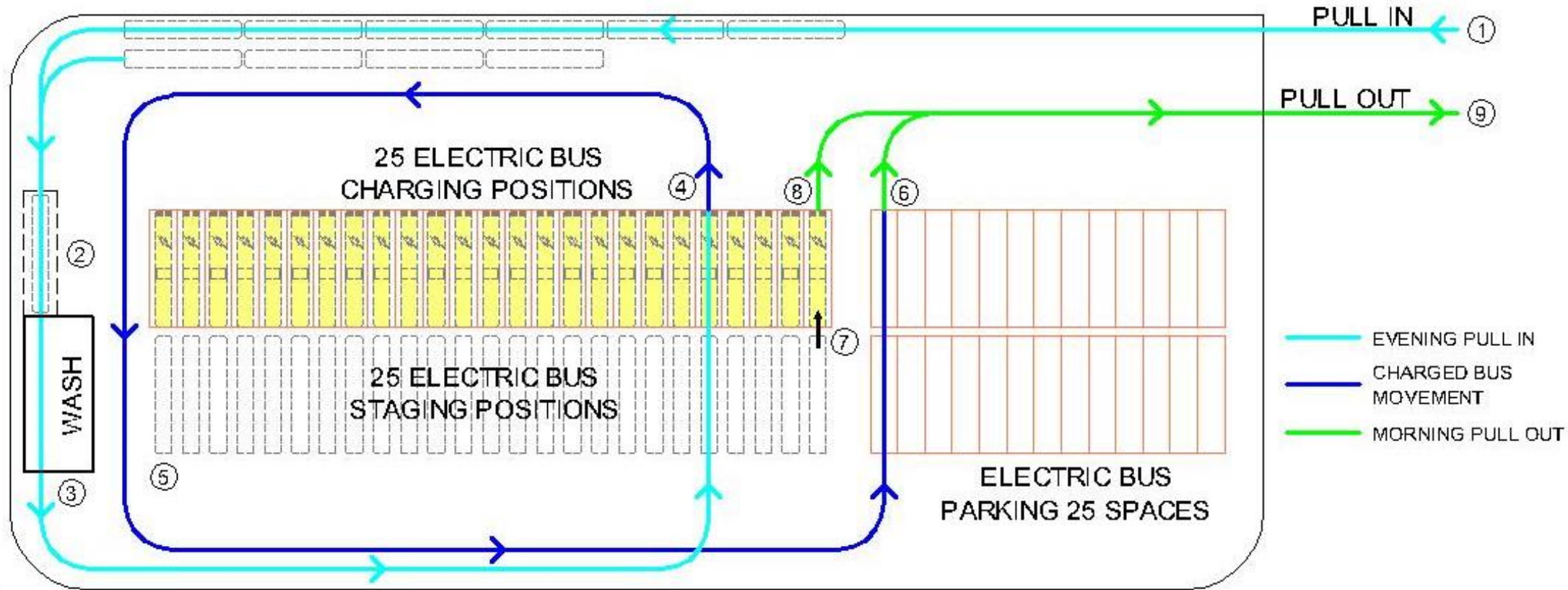
# Traditional Diesel / CNG Nightly Service Cycle



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1. EVENING PULL IN BUSES STACK ALONG CURB TO WAIT FOR FUELING.
2. SERVICE TECH MOVES BUS TO FUELING POSITION TO BE FUELED. BUS INTERIOR IS CLEANED AND FLUIDS ARE TOPPED OFF DURING 6 MINUTE FUELING.
3. SERVICE TECH MOVES BUS THROUGH WASH BAY.
4. SERVICE TECH PARKS BUS PARKING SPACE.
5. BUSES LEAVE AT MORNING PULL OUT.

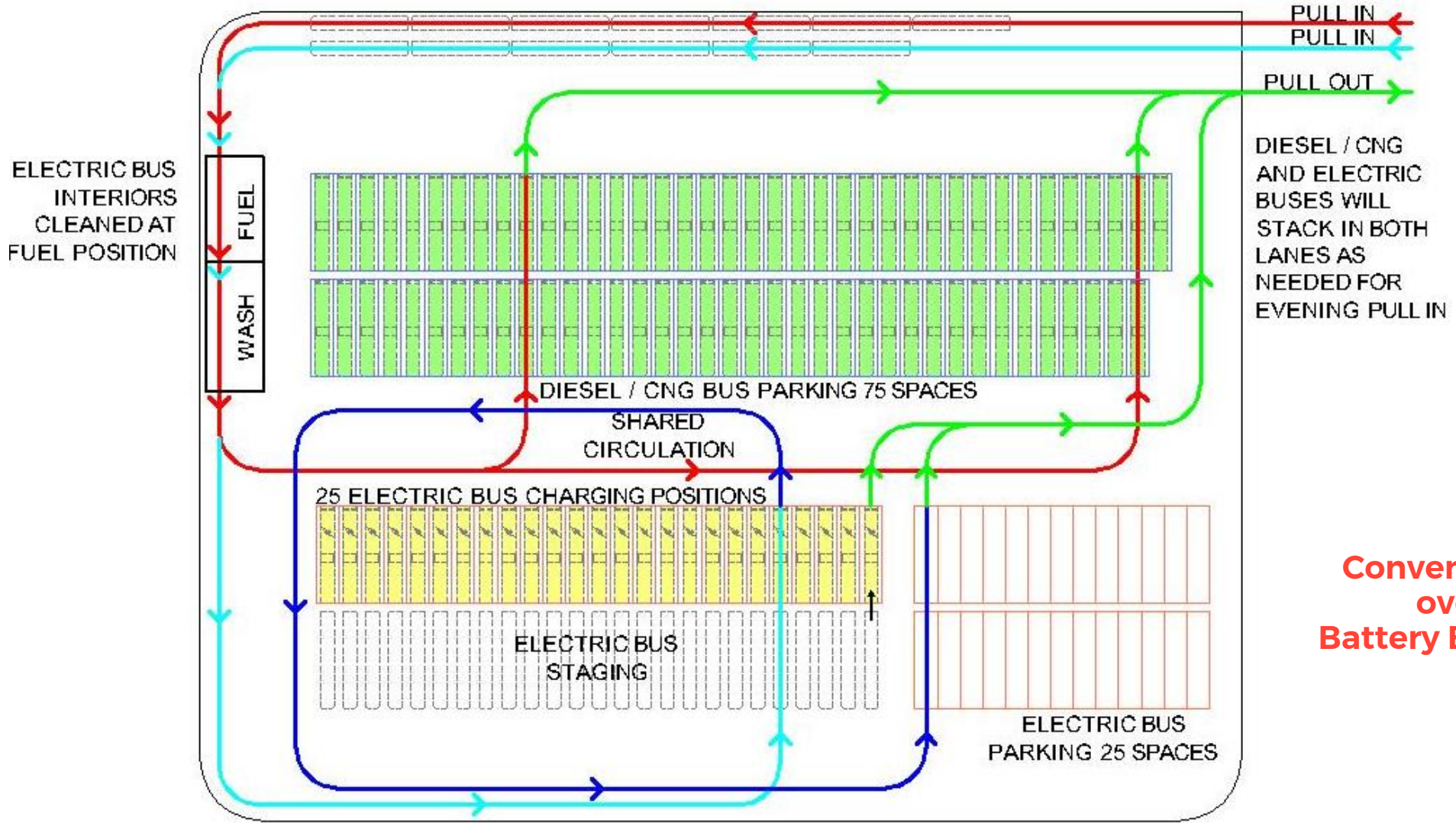
# Shared Position Chargers - Nightly Service Cycle



1. EVENING PULL IN BUSES STACK ALONG CURB TO WAIT FOR WASH.
2. SERVICE TECH MOVES BUS TO INTERIOR CLEAN AREA. BUS INTERIOR IS CLEANED AND FLUIDS ARE TOPPED OFF.
3. SERVICE TECH MOVES BUS THROUGH WASH BAY.
4. SERVICE TECH PARKS BUS AT FIRST AVAILABLE CHARGER AND PLUGS IN BUS.
5. WHEN ALL CHARGERS ARE OCCUPIED, BUSES ARE

6. STACKED BEHIND CHARGING BUSES BY SERVICE TECH AFTER INTERIOR CLEAN AND WASH.
7. AFTER 3 HOUR CHARGE, SERVICE TECH UNPLUGS, MOVES, AND PARKS FULLY CHARGED BUS IN PARKING SPACE.
8. SERVICE TECH MOVES STACKED BUS TO CHARGER AND PLUGS IN.
9. LAST 25 BUSES REMAIN PARKED AT CHARGER. BUSES LEAVE AT MORNING PULL OUT.

# Shared Position Chargers - Nightly Service Cycle

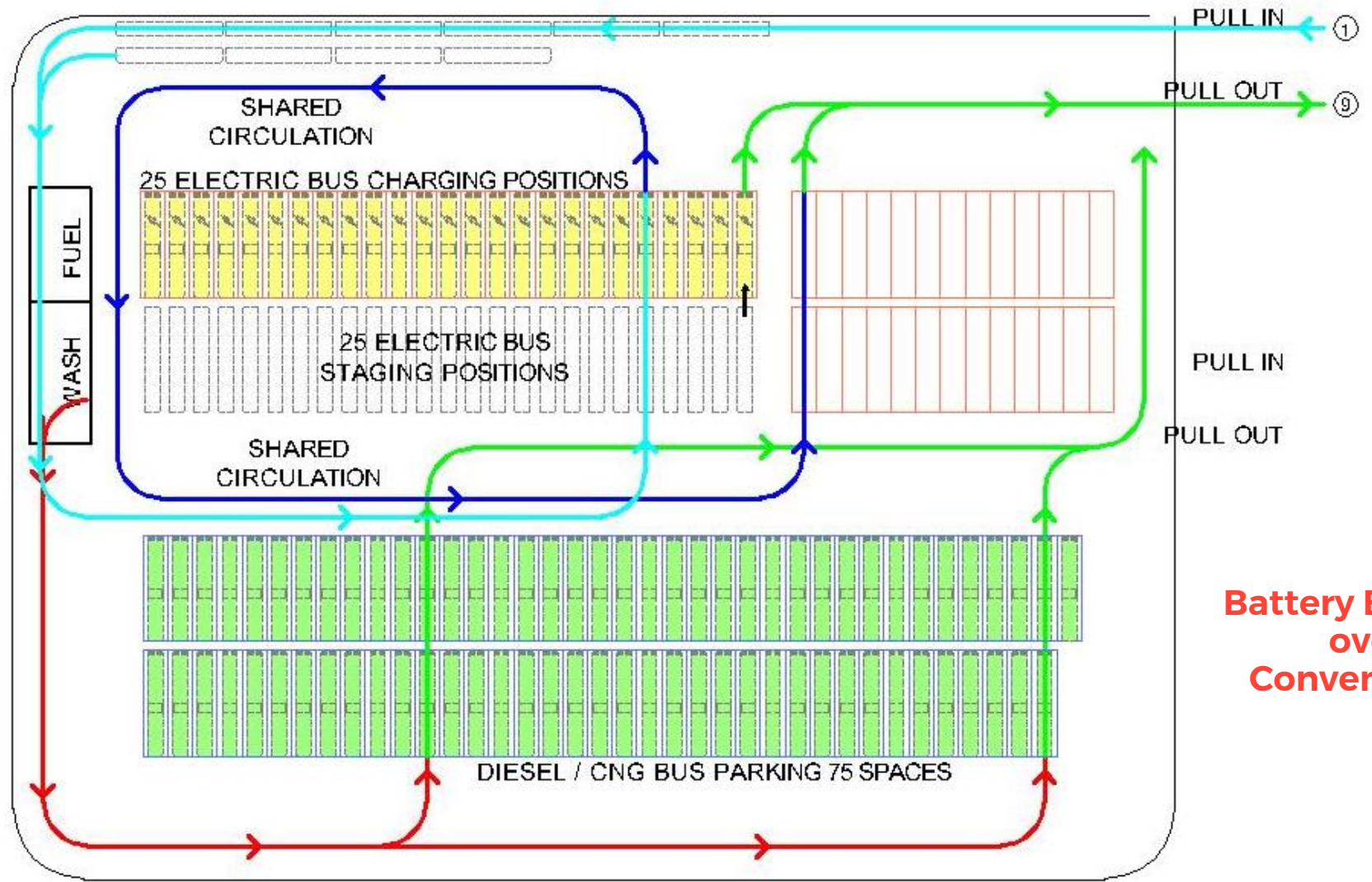


**Conventional  
over  
Battery Elec Bus**

- EVENING PULL IN (DIESEL / CNG)
- EVENING PULL IN (ELECTRIC)
- CHARGED BUS MOVEMENT (ELECTRIC)
- MORNING PULL OUT (ALL BUSES)



# Shared Position Chargers - Nightly Service Cycle



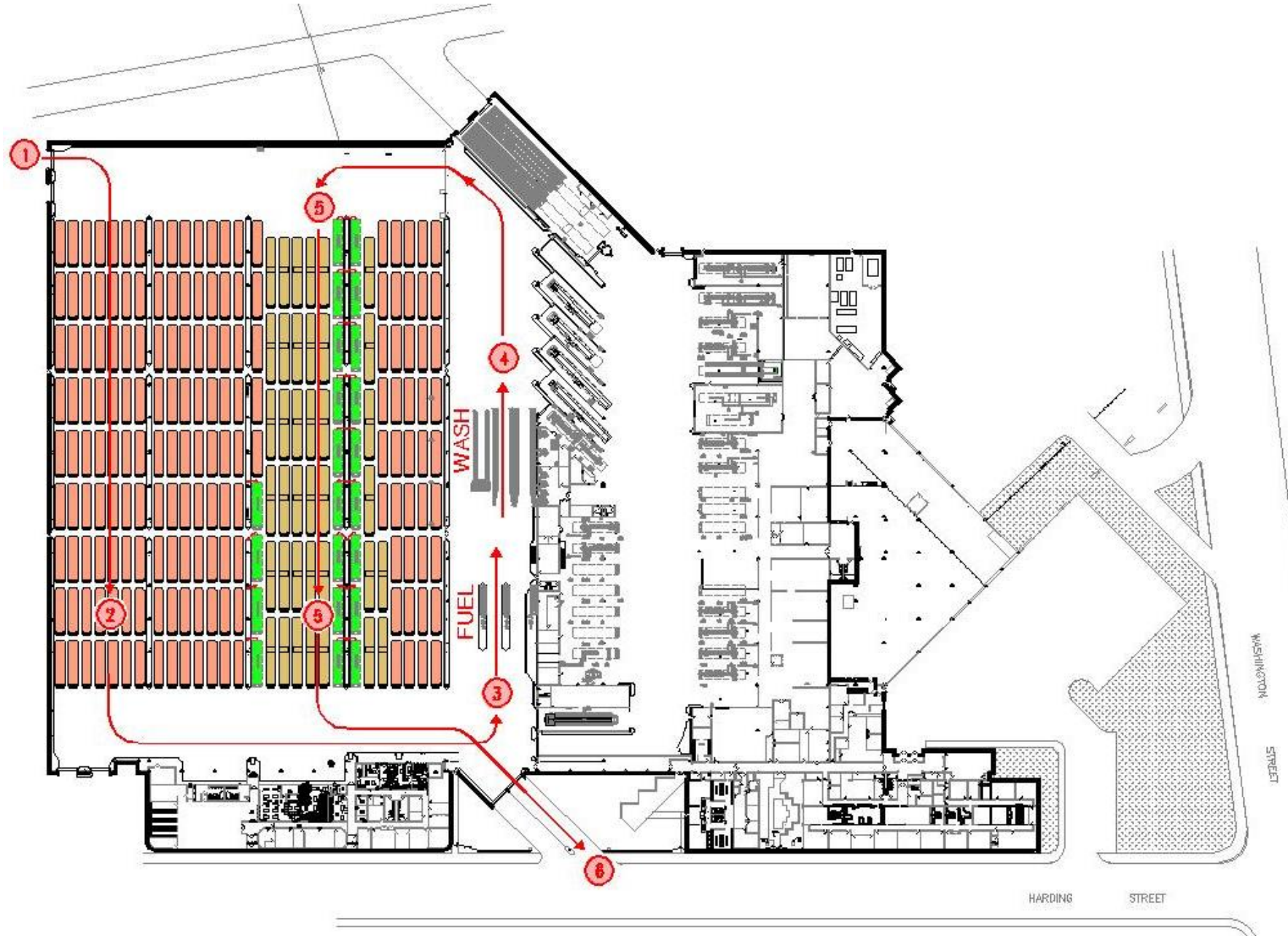
**Battery Elec Bus  
over  
Conventional**

- EVENING PULL IN (DIESEL / CNG)
- EVENING PULL IN (ELECTRIC)
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# Charge in Parking Space - Nightly Service Cycle

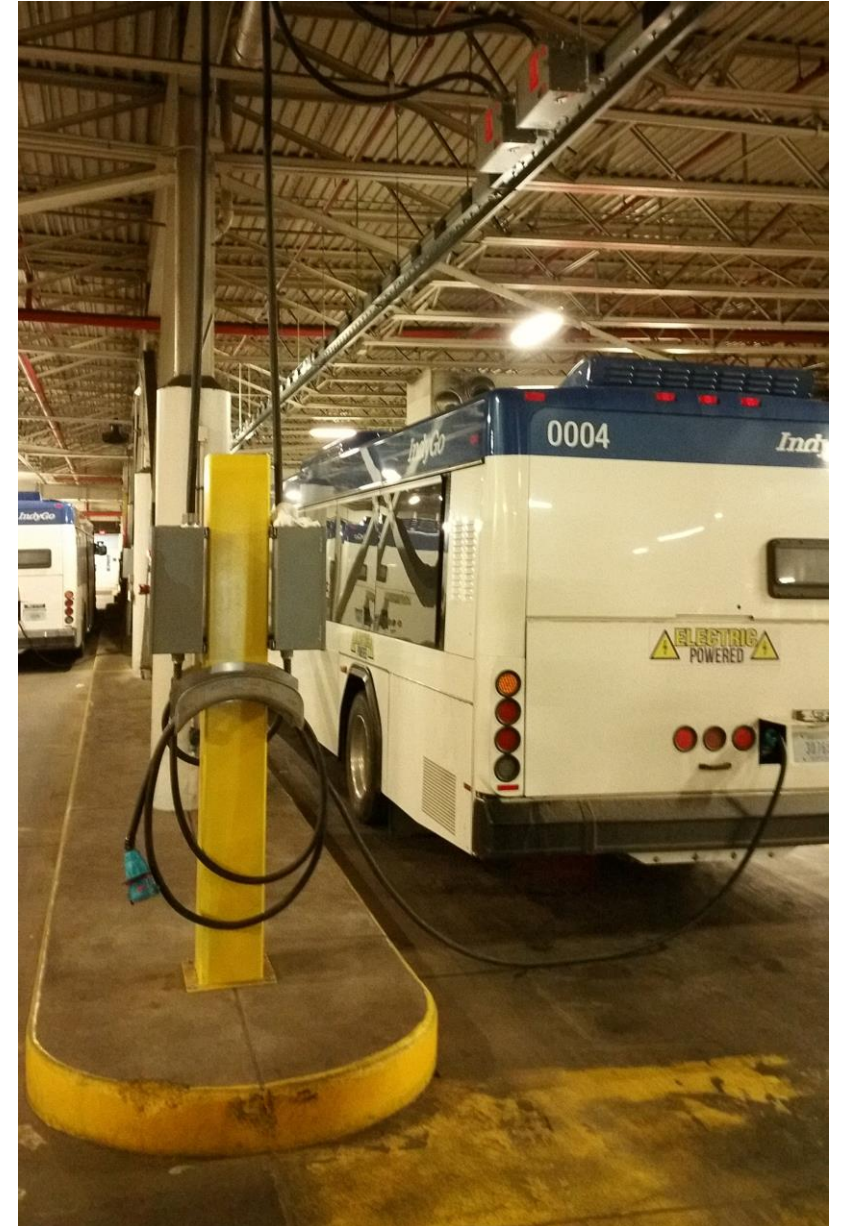
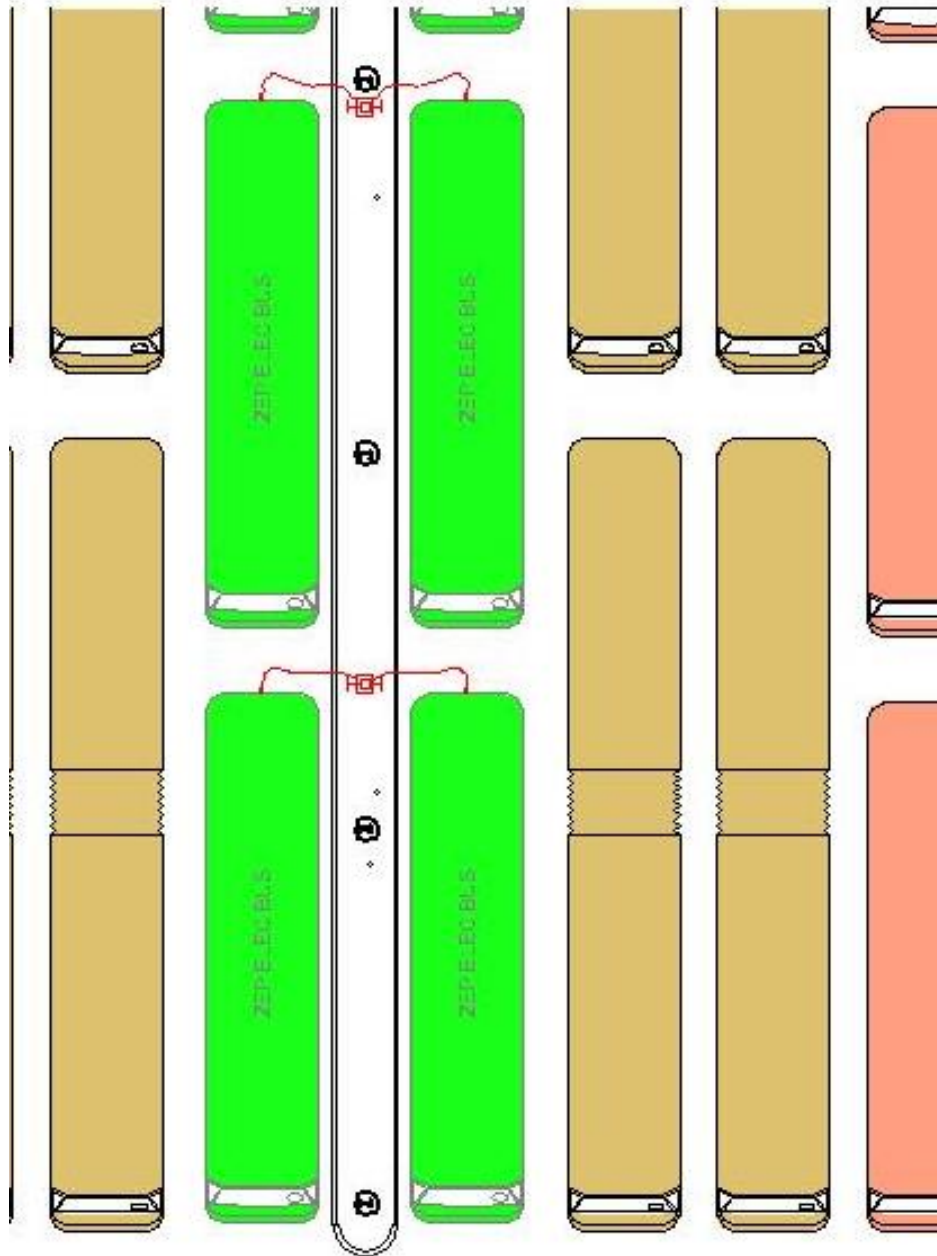
**IndyGo**  
Washington  
Street  
Garage Example

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# Charge in Parking Space - Nightly Service Cycle

**IndyGo**  
Washington  
Street  
Garage Example

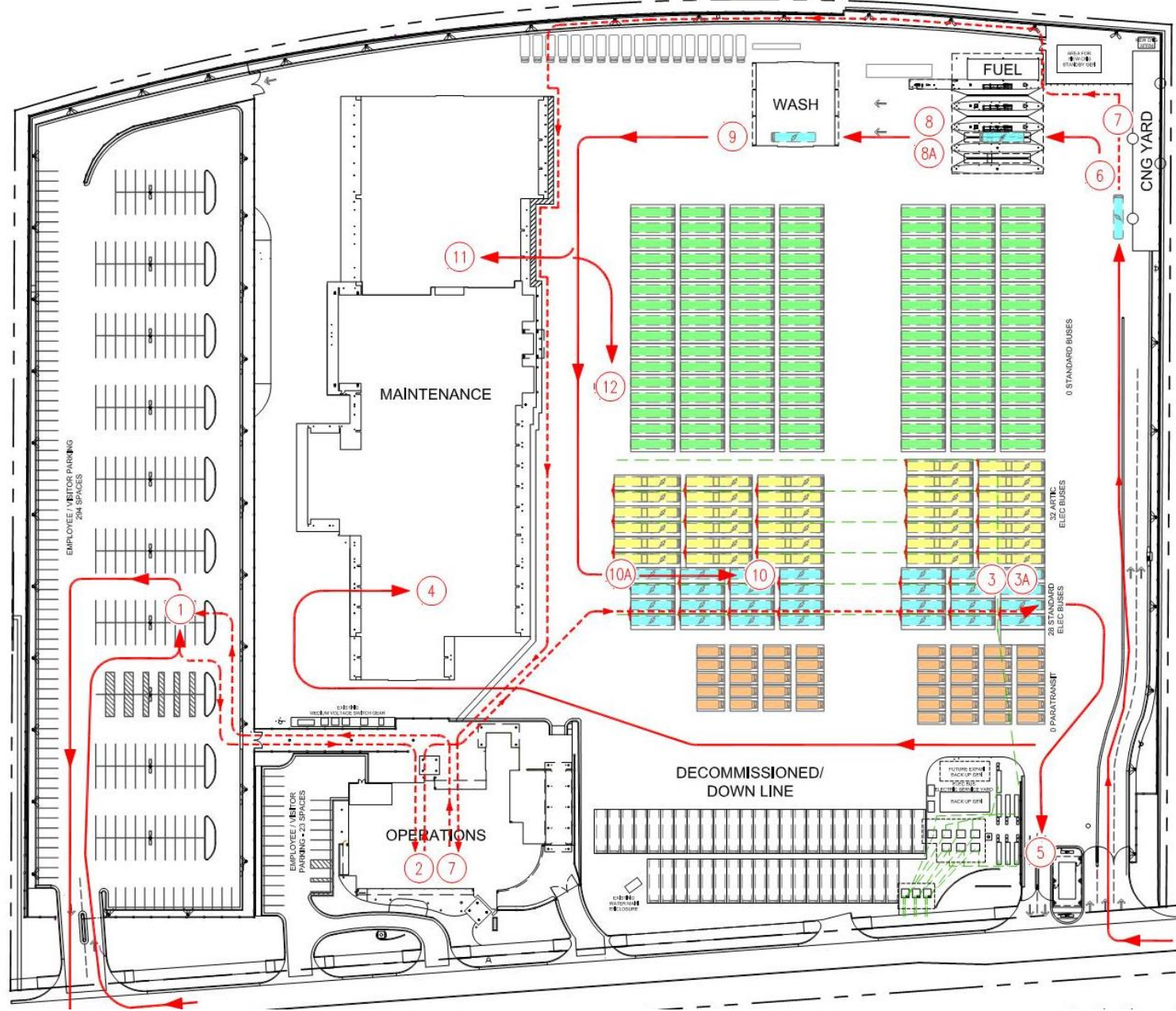


# Charge in Parking Space - Nightly Service Cycle

## ABQRIDE

Daytona  
Garage  
Example

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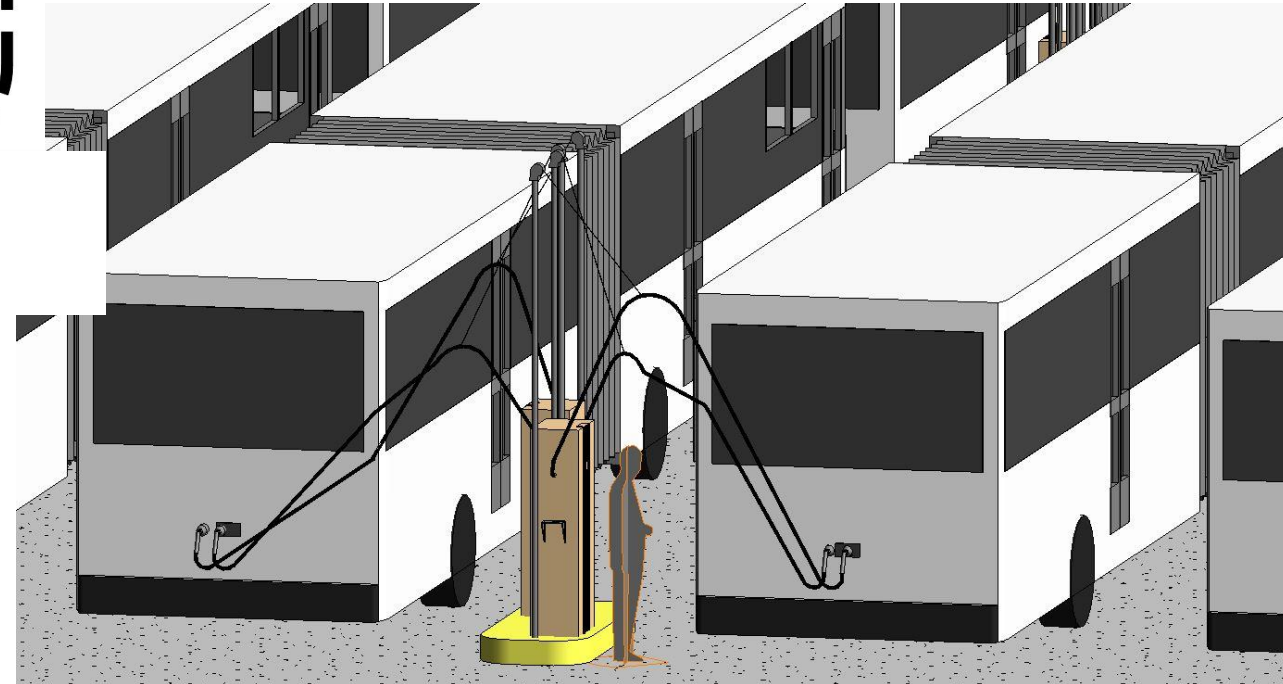
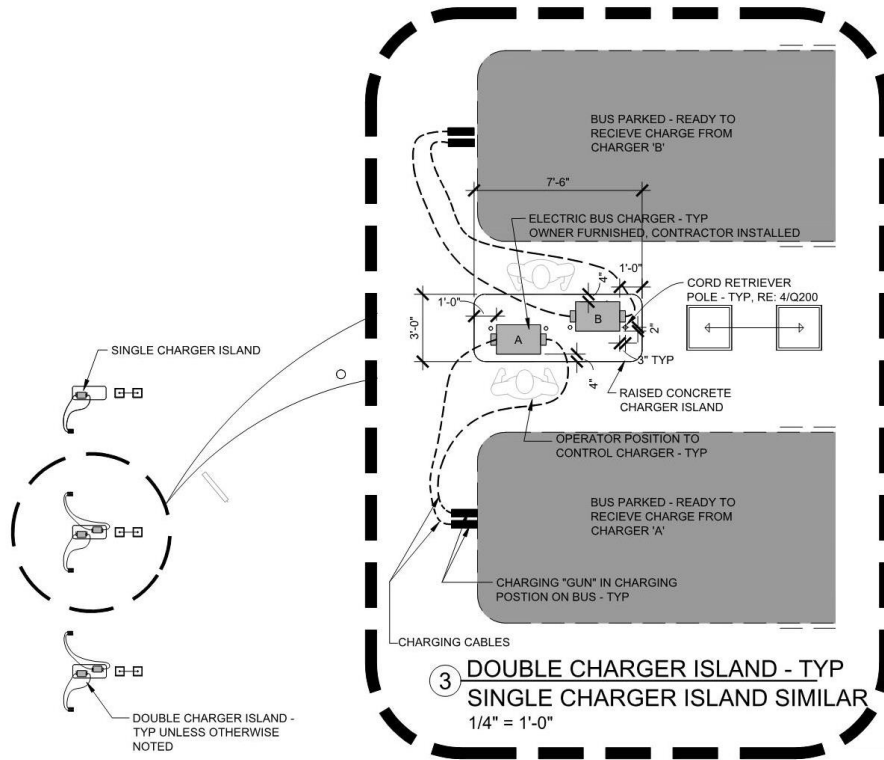
# Charge in Parking Space - Nightly Service Cycle

## ABQRIDE

Daytona

Garage

Example



# Charge in Parking Space - Nightly Service Cycle

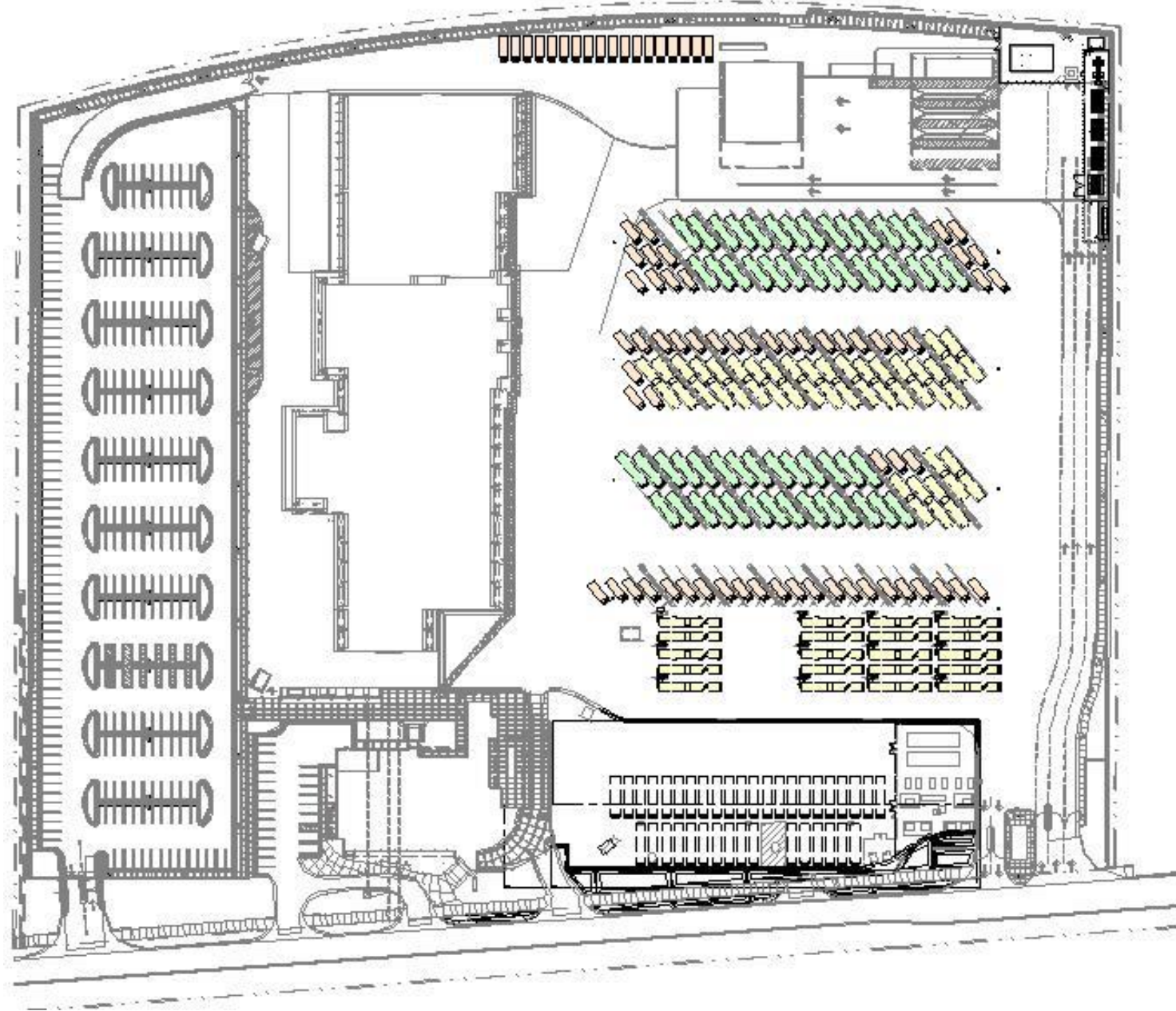
## ABQRIDE

Daytona

Garage

Example

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Thank you

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