



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

January 15, 2021

AGENDA ITEM 3.3

TO: Regional Transportation Commission

FROM: Mark Maloney
Director of Public Transportation and
Operations



Bill Thomas, AICP
Executive Director

SUBJECT: Future relocation of RTC Fixed-Route Bus Maintenance Facility

RECOMMENDATION

Accept a report regarding the future relocation of the RTC’s fixed-route Jerry L. Hall Maintenance and Operations facility located at 2050 Villanova Drive.

SUMMARY

As a result of the Nevada Department of Transportation (NDOT) Spaghetti Bowl Project, currently underway, the RTC must plan for the future relocation of the Jerry L. Hall Maintenance and Operations facility located at 2050 Villanova Drive. This facility, originally constructed in 1983 and recently renovated in 2017, is located beneath the I-580 freeway adjacent to Earl Wooster High School. The RTC has a 99 year lease for this property and has been leasing the space from NDOT for the past 38 years. Phase four of the Spaghetti Bowl Project is scheduled for 2035 to 2037 and will require the RTC to relocate its facility and move from this location.

FISCAL IMPACT

The anticipated cost to relocate and build a new facility is estimated to be between \$40 to \$50 million dollars. To plan for this impact, the RTC must create a special project account to budget for future facility/property and construction costs.

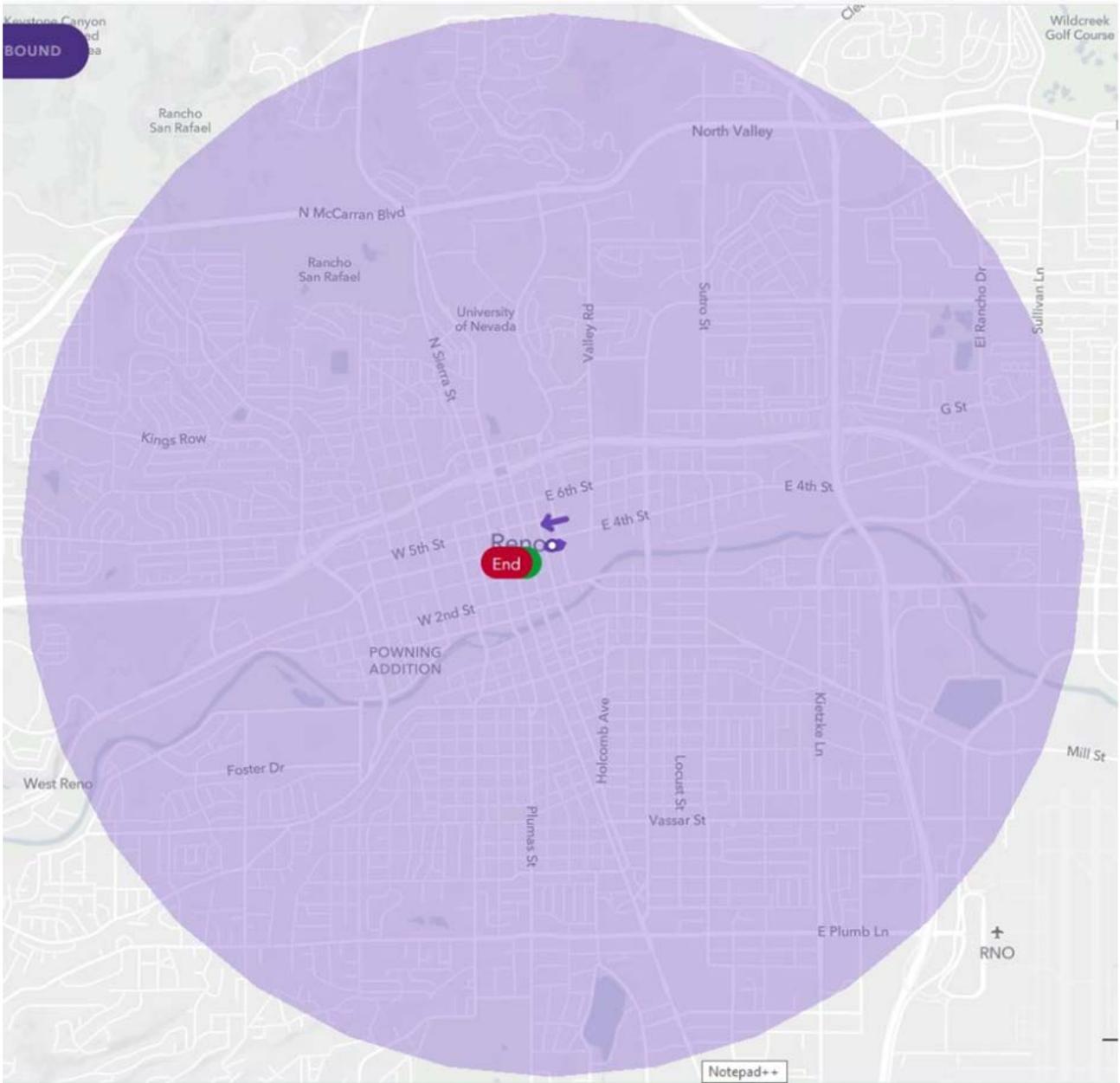
PREVIOUS ACTIONS BY BOARD

There have been no previous Board actions taken.

ADDITIONAL BACKGROUND

Phase Four of the Spaghetti Bowl Project will remove the Villanova facility from under the freeway as early as 2037. The RTC leases the Villanova facility from NDOT on a 99 year lease. NDOT would be responsible for reimbursing the RTC for the market value of improvements made at this site. To date, those structure improvements include approximately \$25 million dollars.

Given the potential cost of \$40-\$50 million dollars to relocate and build a new facility, RTC must begin looking for opportunities to purchase property(s). To maintain the current operating cost for service to and from the garage, the property(s) must be located within the Reno urban core in a non-residential, 24-hour operational area, as identified in the map below.



Based upon the current facility, the new facility should include and be able to accommodate the following:

- 10 acre site, approximately
- 30,000 sf of maintenance bays
- 45,000 sf of bus parking/covered outdoor storage
- 40 bus parking slots with capacity for 80 buses and/or storage
- 100 employee and 12 service vehicle parking spots
- 20 electric bus chargers with 4000A service
- Diesel fuel, electric bus charging and hydrogen fueling instructure
- Bus wash
- Body repair bay
- Chassis inspection and vehicle inspection pit

Additional detailed information can be found in the attached report titled “RTC New Bus Maintenance Facility 2020.”

Attachment

RTC New Bus Maintenance Facility 2020



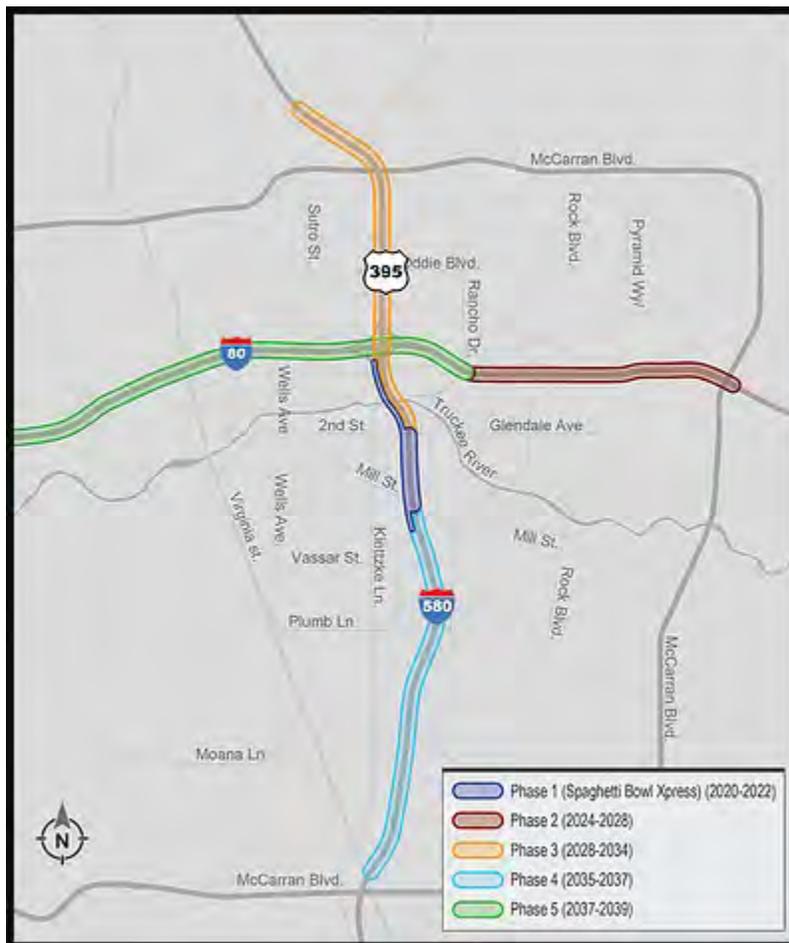
JANUARY 7

Regional Transportation Commission of
Washoe County (RTC)
Authored by: David Carr, Fleet & Facilities
Manager



Draft Study

The Regional Transportation Commission of Washoe County (RTC) is developing an assessment of the current facility needs at the Jerry L. Hall Regional Transit Operations and Maintenance Center at 2050 Villanova Drive and description of need for a new replacement location. The facility was originally constructed in 1983 and renovated in 2017. The RTC is planning relocation from this site due to the Nevada Department of Transportation's (NDOT) Spaghetti Bowl Project which will require the RTC to move out of its current facility during phase four of the project. Phase four of this project is scheduled for 2035 to 2037.



Existing RTC Transit Maintenance Facility

The existing facility is located on a 6.8 acre site directly under the I-580/395 Interstate at 2050 Villanova Drive across from Earl Wooster High School.

Existing Facility Summary

Approximately 6.8 acre site under the I-580/395 interstate

Maintenance bays 32,158 square feet

New Maintenance bays 8,730 square feet

Bus Storage 57,613 square feet

39 bus parking slots with capacity for 78 buses and/or storage

80 employee and 12 service vehicle parking spots

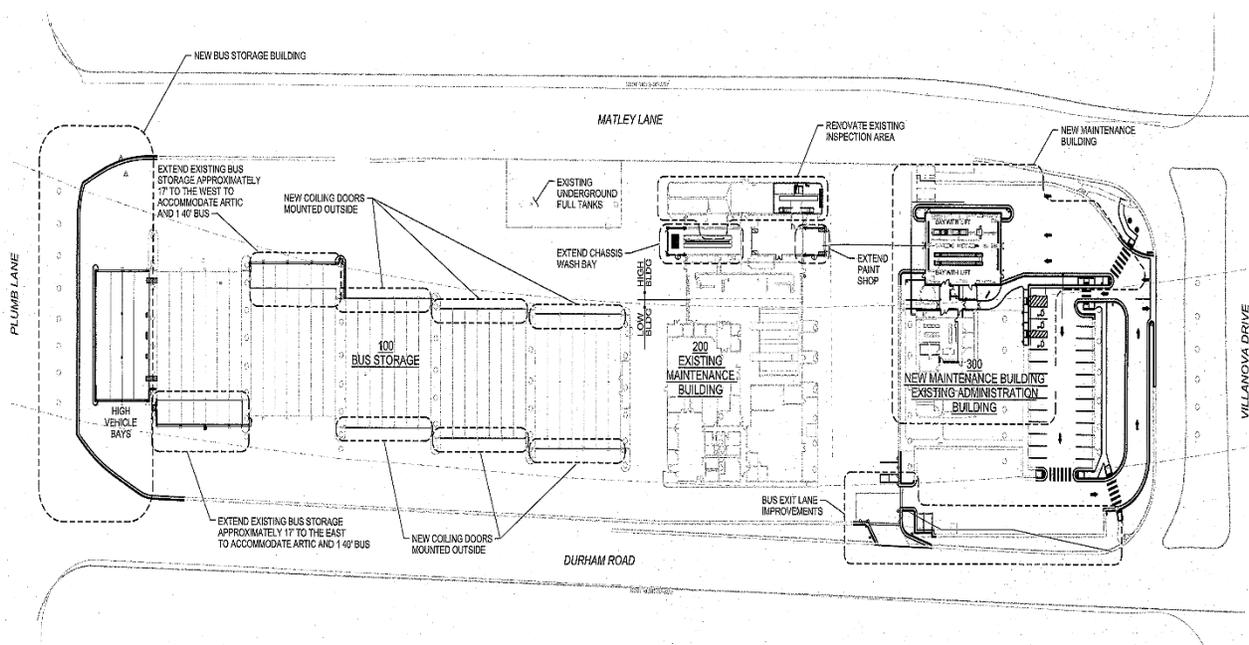
16 electric bus chargers with 2000A service

Diesel Fuel and Electric Bus Charging Infrastructure

Bus wash, body repair bay, chassis inspection and vehicle inspection pit.

The estimated current insurance replacement value for the facility is:

Administration	\$ 3,800,000
Maintenance	\$ 7,600,000
Bus Storage	\$13,500,000
Total Replacement Value	\$24,900,000



Proposed RTC Transit Maintenance Facility

This facility proposal is designed for the existing size and mix of the RTC fleet with additional hydrogen fueling infrastructure.

New Facility Summary

Approximately 10 acre site

Maintenance bays - 30,000 square feet

Bus parking with covered outdoor storage - 45,000 square feet

40 bus parking slots with capacity for 80 buses and/or storage

100 employee and 12 service vehicle parking spots

20 electric bus chargers with 4000A service

Diesel fuel, electric bus charging and hydrogen fueling Infrastructure

Bus wash, body repair bay, chassis inspection and vehicle inspection pit.

1. **Transit bus maintenance – 30,000 square feet**
 - a. Open floor design with 8 pull thru flexible configuration bays, mobile lift equipment, and roll up platforms for working on top of buses.
 - b. Inspection pit
 - c. Welding area
 - d. Body shop and paint area
 - e. Tire area
 - f. Bus wash plus area for water run off capture
2. **Bus storage – 45,000 square feet**
 - a. 80 covered parking stalls with solar. Solar panels and battery storage benefits include reducing the cost of electricity consumed for battery electric buses as well as reduce overall carbon footprint of the facilities.
3. **Turning movements for vehicles – 40,000 square feet**
4. **Additional bus support area – 40,000 square feet**
 - a. Queuing buses for cleaning

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- b. Money vault and farebox/data probing
- 5. Other Storage – 5,000 square feet**
- a. Parts
 - b. Chemical and Battery
 - c. Tire storage
- 6. Administrative Offices – 15,000 square feet**
- a. Conference rooms / large meeting room
- 7. Parking – 48,000 square feet**
- a. 100 stalls for staff
 - b. 10 stalls for service vehicle parking
- 8. Site Power Requirements**
- a. 2000A power (minimum), 4000A maximum.
- 9. Fuel**
- a. Electric
 - i. 15–20 Bus Depot Chargers
 - ii. Bus charger dispensers (can place in–line with bus parking)
 - b. Diesel
 - i. 2 fuel dispensers (can place in–line with bus wash)
 - ii. DPF dispenser
 - iii. Fuel / fluid management system
 - iv. Diesel underground storage tank (UST)
 - 1. Need area for fuel truck access, spill containment and offloading of fuel
 - 2. 96,000 gallon diesel fuel UST (current)
 - c. Lube and oil (UST)
 - i. 2000 gallon motor oil
 - ii. 1000 gallon ATF Type F
 - iii. 1000 gallon ATF Synthetic
 - iv. 1000 gallon Coolant
 - v. Coolant recovery system

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- vi. 3000 waste oil
 - d. Hydrogen Fuel - 1,000 – 2,000 square feet (separate space has to be provided with adequate set back)
 - i. Dispenser
 - ii. Fuel storage
 - iii. Fuel maker
 - e. Emergency back-up generator (for facility and/or bus chargers)

10. Other

- a. Administration space can be built on a second or third story, if adequate vertical clearance is available.
- b. Park and ride space could be incorporated into design, if space is available.
- c. Adjacent roads must have capacity for 30,000 lb. buses.
- d. Minimum residential / housing proximate to facility due to noise and fumes from 24/7 operations.
- e. Estimated 10 acres for total facility property needs
- f. The facility should be located as close as possible to the urban core below to minimize the deadhead time and distance for vehicles to and from the garage. For example, by relocating the Villanova facility from its current location to parcels adjacent to the Sutro facility would save approximately 60,000 miles annually of unproductive travel to and from the current Villanova maintenance facility.

SUTRO FACILITY OPTION

