



**County of Fairfax
Newington Maintenance
Facility**

**Community Meeting
and Existing Facility Tour**

Department of Vehicle Services

**Department of Public Works
and Environmental Services**

**October 8, 2009
Tour Starting at 7:00 p.m.
Lorton, VA**



Project Team

- Department of Vehicle Services
- Department of Public Works and Environmental Services
- Consultants:
 - Gauthier Alvarado and Associates – Architect, Structural, Mechanical, Electrical and Plumbing Engineers
 - Adtek Engineers – Civil Engineer



Project Location





Existing Facility

- Site area is approximately 25.4 acres and contains the maintenance buildings, parking, fuel island and storage facilities. The building area is approx. 60,000 square feet spread in four buildings on the site.
- The facility was built in the 1960's with renovations/additions in the mid 1970's and 1980's. It services school buses, trucks, small County vehicles, Fire and Rescue equipment and police motorcycles.
- The maintenance buildings are outdated and inadequate for current maintenance, equipment and technology requirements. Furthermore, the buildings are not energy efficient resulting in higher operations cost.

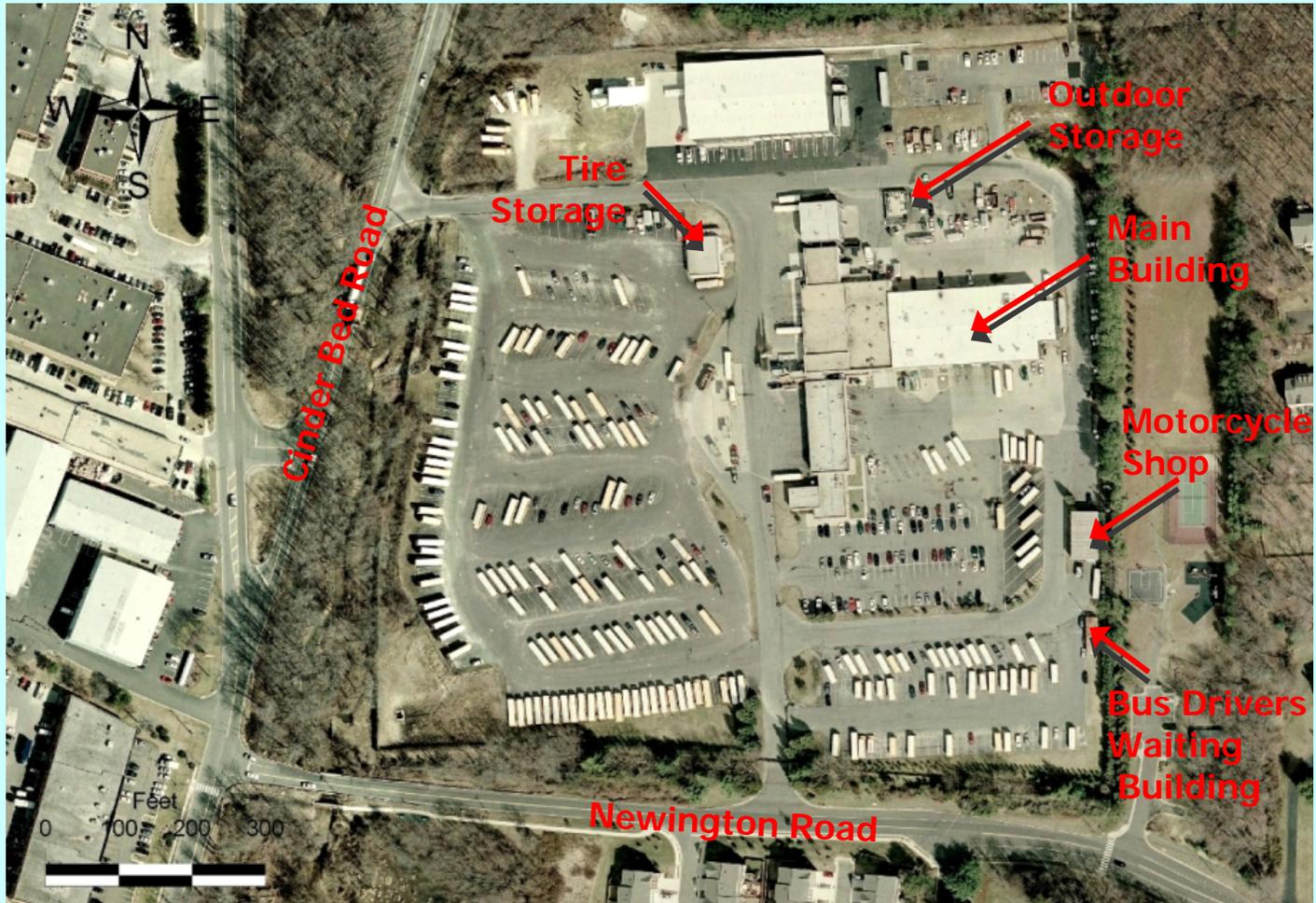


Existing Facility (cont'd)

- Vehicle fleet maintained at this facility has increased by 35% from a total of 1,360 in 1994 to the current total of 1,841, needing additional building area for maintenance and repair.
- Maintenance bays and vehicular circulation within the site is inefficient due to the growth of the number and types of vehicles, posing a safety concern.
- The existing maintenance bays are undersized relative to the size of current vehicles and limit the operational efficiency.



Existing Facility



Aerial View



Existing Facility



**Looking North
(Main Building)**



Existing Facility



Motorcycle Shop



Tire Shop



Outdoor Storage



Bus Drivers Waiting Building



Proposed Design

- A feasibility study was conducted in 2005 to evaluate the existing conditions, assess facility and operational needs, and determine the scope and cost of the upgrade work.
- The project was included in the 2006 Public School Bond Referendum and was approved by voters in November 2006.
- Proposed design will consolidate major operations of the site into a single, well planned and efficient building of approximately 91,100 sf on the existing site.



Proposed Design (cont'd)

- The proposed facility will feature new technology, upgraded servicing and maintenance equipment, energy efficient building systems, ample natural lighting, and improved safety and efficiency for both internal building and on-site traffic circulation.
- The design will include:
 - Administrative and support areas: offices, training room, bus drivers waiting room, lunch room, lockers and shower facilities.
 - Maintenance and Service areas: Maintenance and repair bays, tire and parts storage, paint and wash bays, associated service and storage spaces.



Proposed Design (cont'd)

- Use of masonry as the major building material to be compatible with the surrounding community.
- Curved roof forms to screen mechanical units on the roof.
- Cut-off light fixtures in the parking lot to contain site lighting to within the property boundary per the Zoning Ordinance requirements.
- Oil/water separators to treat wash down water.
- The existing building will remain operational during construction and demolished upon relocation of the operations to the newly constructed facility.



Proposed Design (cont'd)

- On-site improvements:
 - Approx. 1.7 ac will be dedicated to Conservation Easements.
 - On-site landscaping and transitional screening to meet Public Facilities Manual and Zoning Ordinance Requirements.
 - Reconfiguration of the parking areas, drive aisles, and internal site traffic to improve site traffic circulation and promote site safety.
 - Gate on Newington Road will remain closed except for emergency access.
 - Stormwater management features.



Proposed Design (cont'd)

- Off-site improvements:
 - Realignment of Newington Road and Cinder bed Road Intersection.
 - Cinder Bed Road Frontage Improvements to include a Pedestrian Trail.
 - Newington Road Frontage Improvements.
 - Newington Road frontage Bridge Widening .



Noise Impact Assessment

- A Noise Impact Analysis was performed in 2001 by Polysonics Corp., to determine the noise impact of the Newington facilities on the nearby residential properties.
- The report noted that based on measurements taken, a number of other significant sources of noise in the overall environment exist in this area that contribute to the overall noise, including nearby industries, Interstate 95, trains, & helicopters from Davis Field and aircraft flyovers. Noise levels from Newington facilities and within the residential communities were within the allowable Zoning Ordinance noise levels.



Noise Impact Assessment

- The existing facility has taken a number of measures to lessen the noise generated from this facility, including:
 - Planting additional trees to the east of the property.
 - Relocation of the heavier truck parking away from property boundary and toward the interior site area.
 - Elimination of siren testing on the outside and limiting the interior testing time to specific timeframes.
 - Installation of sound buffer around lift pumps to contain noise.
 - Elimination of public address and paging systems and substituting with mobile phone system.



Noise Impact Assessment

- With the proposed design
 - The noise Assessment Impact Analysis is being updated on the new design.
 - The design uses masonry walls to provide mass and contain sound within the building.
 - Overhead doors and glazing will be insulated to reduce sound transmission.
 - Other noise mitigation measures will be designed into the project as recommended by the study.



Sustainable Design

- LEED – Leadership in Energy and Environmental Design, an evaluation and rating system by US Green Building Council. The facility will be developed to attain at least a LEED Silver Certification.
- Site Design: Rain gardens, vegetated (Green) roof and cisterns for capturing rain water that will assist in meeting the stormwater management requirements. No increase in runoff due to most of the roof rain water being captured for vehicle washing.
- Energy efficiency: Natural lighting, energy efficient indoor and outdoor lighting systems, energy efficient heating, and cooling systems and Energy Star rated appliances.



Sustainable Design

- Energy efficiency (cont'd): Partial green roof to reduce heat gain, and the cooling load.
- Water use reduction: Low flow plumbing fixtures, native landscaping, and captured rain water for vehicle wash.
- Indoor Environmental Quality: Natural light, low volatile organic compound (VOC) finishes and materials, and vehicle exhaust extraction system to maintain a healthy indoor air.
- Materials and Resources –Building materials with recycled content and purchased regionally within a 500 miles radius of the project site.



Proposed Design



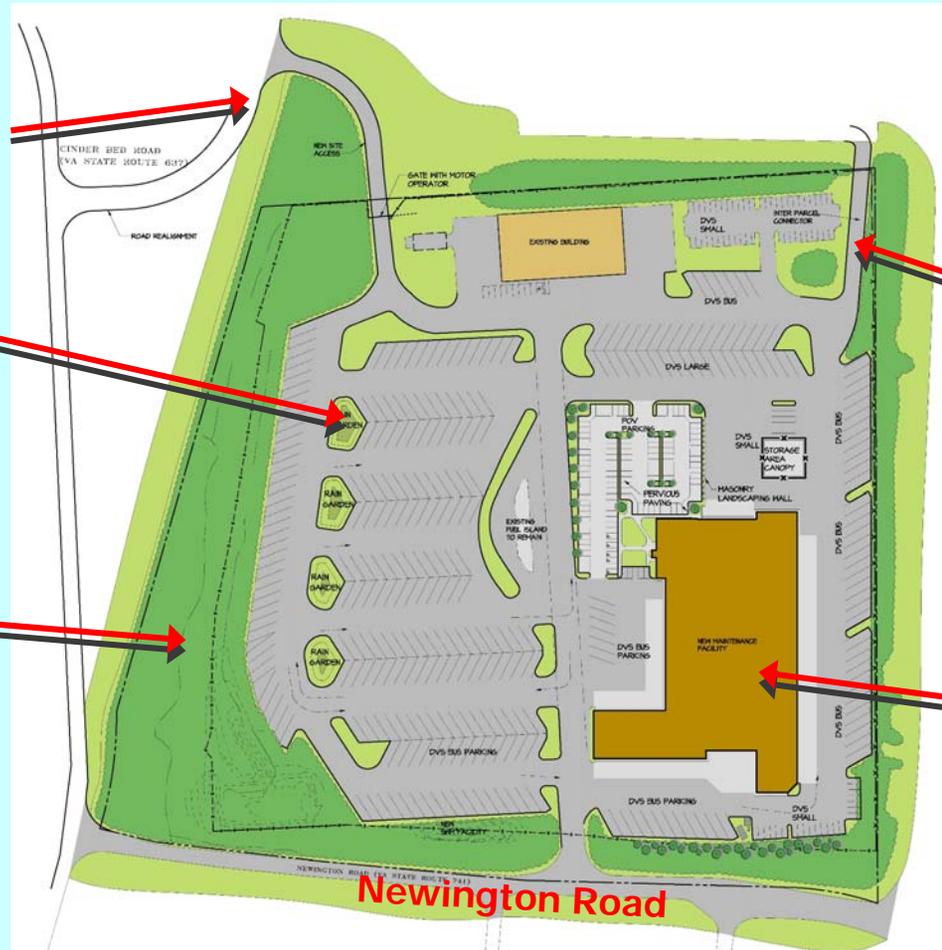
Re-aligned Cinder Bed Rd

Rain Gardens
(Total 4)

Conservation
Easement
(Approx. 1.7 ac.)

Inter-parcel
Driveway

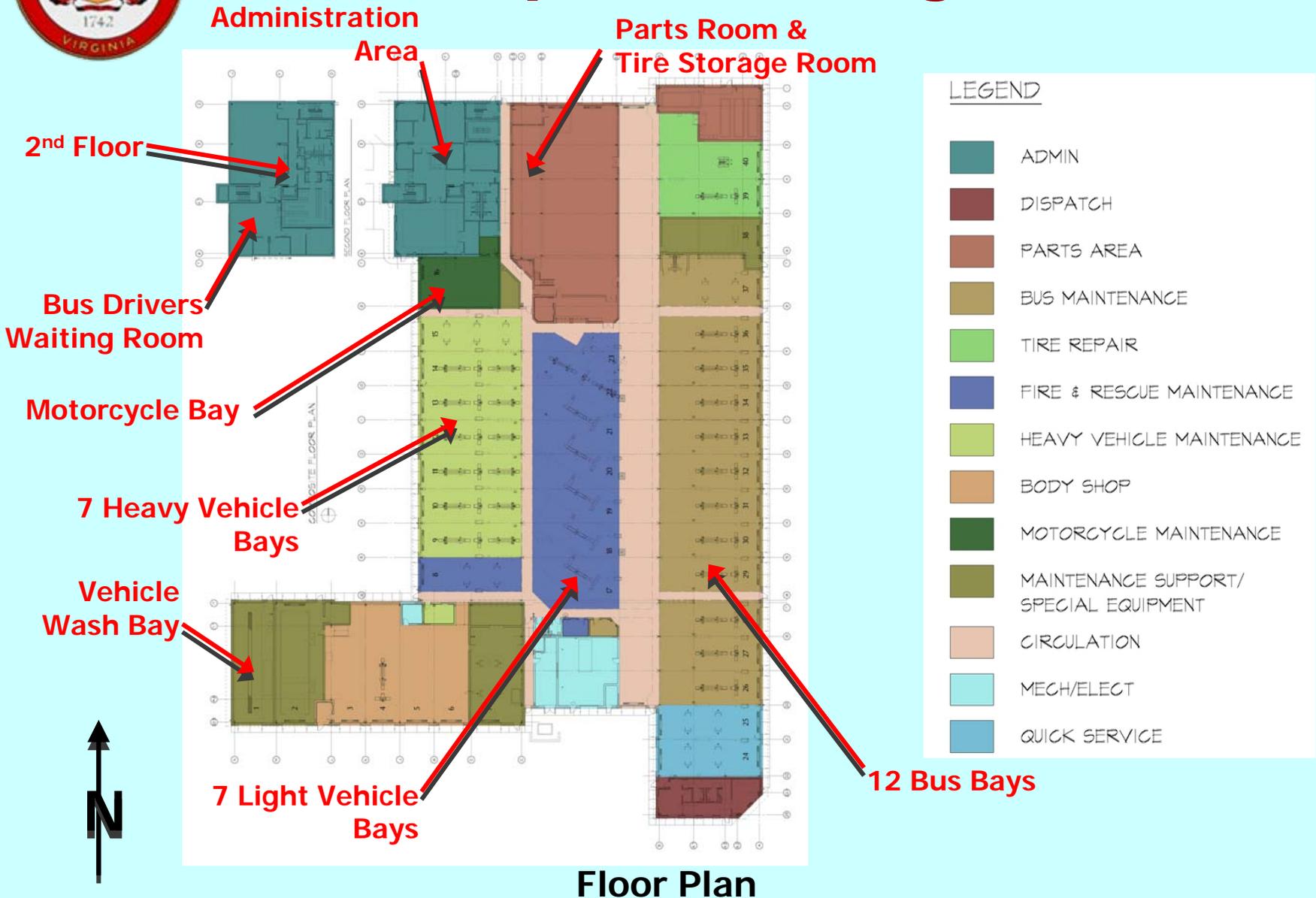
New
Building



Site Plan



Proposed Design





Proposed Design



Northwest View
Administration area



Proposed Design



Birdseye View



Southwest View



Proposed Design



North Elevation



East Elevation



Proposed Design



South Elevation



West Elevation



Summary

	Existing	New
Approximate Total Building Area (Square Feet)	60,000	91,100
Maintenance Bays	37	40*
Parking Spaces	514	510
Total Vehicle Fleet Serviced	1841**	1841

* Larger maintenance bays to accommodate increased vehicle sizes.

** In 1994 the building was served 1,360 vehicles.



Project Cost and Draft Schedule Information

- Approved Funding: \$54.2 Million
- Community Meeting: October 2009
- Public Hearing: January 2010
- Design Complete: Summer 2010
- Site and Building Permits: Summer 2010
- Bidding & Contract award: Fall 2010
- Construction Start: Fall 2010
- Construction Complete: Fall 2012
- Open Facility: Early 2013



Questions

- **Questions**
 - **Contact Information:**
 - Phone: DPWES Planning and Design Division
703-324-5800
 - E-mail: CitizenComments@fairfaxcounty.gov
- Reference: Newington Maintenance Facility

