National Capital Planning Commission Project Narrative
P-572 Russell Road Widening (Phase 3) from MCCDC to Dunlap Circle
Marine Corps Base, Quantico, VA

The sponsoring agency for this project is the Naval Facilities Engineering Command Washington, acting for the project proponent (Marine Corps Base, Quantico, VA). P.O.C.’s for these organizations are as follows:

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This Project Report has been prepared for the P-572 Russell Road Widening from Marine Corps Combat Development Command (MCCDC) to Dunlap Circle project at Marine Corps Base, Quantico, VA. This report has been prepared for submission to the National Capital Planning Commission for Final review.
Project Description:
Russell Road is located in Prince William County on the Marine Corps Base Quantico (MCBQ) in Virginia. Base personnel enter Russell Road from US Route 1 and Interstate 95 through the South Gate to gain access to MCBQ. This MCBQ gate entrance is the primary access to the Exchange and other commercial facilities located along Russell Road. This project is the third of four projects to provide road widening improvement along Russell Road beginning at the South Gate and continuing east, into the Base.

The project site is located on Russell Road in Prince William County, Virginia east of Interstate 95. The project involves the widening of Russell Road in two sections, beginning at the intersection of Building 3300, MCCDC HQ drive entrance at Sta. 79+00 to Sta. 108+00 and from Sta. 138+00 to Sta. 149+80 which is just west of Dunlap Circle. The site generally follows the existing Russell Road alignment. The project will widen Russell Road ultimately allowing for two full traffic lanes along this portion of the road during peak rush hours thereby easing existing traffic congestion.

Existing Russell Road is mainly a two-lane undivided roadway with outside shoulders. Pavement widening does occur at the Marsh Building and Catlin Avenue to provide existing turn lane storage. Traffic signals are provided at MCCDC HQ drive and at the Marsh building east entrance. The roadway is bound by dense forest and non-tidal wetlands to the north and Potomac River to the south and includes tidal wetlands. Heavy traffic congestion occurs along Russell Road during peak morning and evening commute times. A traffic study was conducted in June 2012 by PHRA, A Pennoni Company for Fuller Road between the MCCDC Entrance and the vicinity of Catlin Avenue. The current Level of Service (LOS) along Russell Road is “F”. Existing conditions include the roadway, outside shoulders, turning lanes, and public and private utilities.

Improvement of traffic flow is to be accomplished via adding an additional thru lane in both eastbound and westbound directions and providing adequate storage lanes for turning movements at the Marsh Building and Catlin Avenue. These improvements will maintain free traffic flow on Russell Road toward the base. This upgrade will increase the capacity of Russell Road from MCCDC to Catlin Avenue, and reduce congestion.

Project improvements also include widening of Russell Road, and improvements to existing utility infrastructure of water, sanitary sewer, and telecommunications systems. The water main improvements include new fire hydrants at 500 foot intervals which will improve MCBQ fire protection. The project also includes a new bus shelter to service existing public transit service along Russell Road.

The layout of the improvements to Russell Road has been designed in accordance with the Virginia Department of Transportation (VDOT) standards and specifications and also UFC, AASHTO, FHWA, and MUTCD requirements. The design will provide accessibility to people with disabilities per the DEPSECDEF Memorandum “Access for People with Disabilities” dated Oct. 31, 2008.
The site generally lies above the floodplain of and parallel to Chopawamsic Creek with drainage both on-site and off-site flowing north to south through the project site to existing storm drain systems and culverts with discharge on the south side of the project site. There is a significant upstream drainage area to the north of the project. All upstream flow is diverted into multiple culverts which cross under Russell Road. This project was also designed to conform with the regulations for water quality in accordance with the Code of Virginia 4-VAC50-60 as further provided by the Virginia Stormwater Management Handbook Latest Revision July 2013. Channel and Flood Protection has also been provided per 4-VAC50-60. The post development increase in flow volume for the 1 Year Storm Event has been offset by the total storage volume in the proposed low impact development (LID) Facilities. The project will result in the filling of approximately 0.2-acre of non-tidal wetland, which will be mitigated through the purchase of mitigation bank credits within the watershed.

The project will utilize dry swales (VA DEQ Specification #10) and a bioretention (VA DEQ Specification #9), to achieve the required volume in combination with reduced impervious. Where possible, impervious areas have been reduced and the Limit of Disturbance has been reduced to the maximum extent possible, including construction of a retaining walls. The remainder of the water quality volume is provided by eight (8) dry swales and one (1) bioretention facility. The project provides treatment storage greater than the project’s target LID Volume (UFC 3-210-10) and is also sufficient to meet the guidelines of the Virginia Code (4-VAC-50-60). In addition the LID Facilities have been designed per the parameters of the Virginia DEQ–BMP Clearinghouse. Channel Protection Volume is provided per the requirements of the Virginia Code 4-VAC50-60-97.

The project includes the removal of 3.29 acres of existing forest as part of the road widening and re-grading. The MCBQ Comprehensive Plan stipulates a one-to-one replacement ratio for removed trees. Impacted existing forest will be replanted with a mixture of existing native species deciduous and evergreen trees to restore the area to a natural state. The project area was surveyed for Northern Long-Eared Bats in 2015 and no occurrences were identified.

In summary this projects proposed improvements to a portion of MCBQ’s Russell Road has many overall positive attributes that improve existing infrastructure while also being sensitive to the natural environments.

- The project improves traffic flow capacity and safety of Russell Road and the US Route 1 intersection through added entrance and exit lanes into MCBQ near the South Gate.
- The project does not negatively impact the existing 100-year flood plain for the adjacent Chopawamsic Creek.
- The project maintains the existing stream buffer on Chopawamsic Creek.
- The project utilizes low impact development to manage storm water and mimic pre-development hydrologic conditions.
Total Area of Building Site and Allocation of Land to Proposed Uses: The total disturbed area of the project is 4.52 acres. The project area follows and is adjacent to the existing Russell Road.

Area of Building(s) and site coverage: The project is primarily a road widening project and the only proposed building is the addition of a new 72 SF Bus Shelter located along the westbound (outbound) lanes.

Description of the Relationship of the Project to the Agency’s Master Plan, Where Applicable, Including Rationale for any Deviations: The widening of Russell Road is listed as a strategic objective of the strategic goal of improving base traffic management and flow as stated in MCBQ’s Strategic Plan.

Status of Coordination with Affected Local and State Governments: As MCB Quantico is a federal facility, they will be required to submit this project for all applicable permits. The Virginia Department of Transportation has been made aware of this project.

Status of Community Participation, including Summary of Community Views: Public notice was included as part of the NEPA process.

Schedule for Construction and Occupancy: Construction is currently scheduled to begin in Spring 2016 and continue through May 2017.

Total Estimated Cost of Project and Funding Status: The project has been funded at a total cost of $12,599,900.00.

Transportation Management Program: The proposed project adds additional travel lanes, acceleration and deceleration lanes, turning lanes, and shoulders to Russell Road to improve traffic flow and ease congestions along this portion of the road.

Environmental Documentation: An Environmental Assessment was prepared and a Finding of No Significant Impact was issued dated October 2012. See appendix for documentation.

Historic Preservation Documentation: A Memorandum of Agreement with the Virginia SHPO was signed for this project due to impacts to two archaeology sites. The Phase III data recovery specified in the MOA has been completed.

Executive Order 13514 and EISA, Section 438: The project will incorporate requirements of EISA Section 438 in the stormwater management design. Additionally, Virginia Stormwater Management Regulations and Navy’s Low Impact Development (LID) policies will be incorporated and the most stringent of the requirements will be followed.

The existing site contains 24% impervious coverage. This project proposes a net increase in impervious area of 39%. LID facilities incorporated in the design provide treatment volumes for water quality and channel protection that are greater than 100% of the required treatment volumes.