



CITY OF HAMPTON

JBLE-Langley AFB LaSalle Avenue Corridor Resiliency Plan

Project Title: JBLE-Langley AFB LaSalle Avenue Corridor Resiliency Plan

Background and Project Description:

The intent of this project is directly related to recommendations from the *Hampton-Langley Joint Land Use Study (JLUS)* completed in August 2010 and the *Hampton-Langley Air Force Base Joint Land Use Study Addendum* completed in August 2018. These studies include recommendations to identify high priority corridors that are critical to maintaining accessibility and the mission at JBLE-Langley AFB (i.e., Transportation Action 21 – “Determine which roadways are designated as high priorities for JBLE-Langley”). The JLUS also recommends supplemental transportation actions that include collecting data, document access issues or constraints (i.e., as result of environmental conditions or man-made), and develop a plan that focuses resources on prioritized improvements and will provide the ability to sustain accessibility to/from JBLE-Langley AFB (i.e., Transportation Action 22 – “Establish a plan to maintain access of key corridors”, and Transportation Action 23 – “Use data collected to report traffic and access issues”) in the event of an emergency.

Additionally, the 2018 JLUS Addendum builds upon the Resilient Hampton initiative, an ongoing effort that assesses the multiple forces of water, incorporates community principles and values, and recommends solutions driven by unique neighborhood characteristics. Multiple forces of water affect the City of Hampton and JBLE-Langley AFB. Those forces include storm surge, wave action, and high water levels associated with storms and low pressure weather systems; tidal action, the fluctuation of water levels between low and high tide; stormwater, water generated from rain and storms that can be difficult to infiltrate due to impervious surfaces, and can lead to runoff; and groundwater, the water that lies below the surface of ground, and which can impact the ability of the soil to infiltrate stormwater if the groundwater level is high.

The City and JBLE-Langley AFB face major challenges with a changing climate and rising seas. Chronic stresses that impact resilience are regularly occurring, such as minor flooding during a typical rainstorm, while extreme events, such as a hurricane, occur infrequently. Both the frequency and intensity of storms are increasing, as are the impacts on both JBLE-Langley AFB and the City of Hampton. Relative sea level rise, which is rising waters combined with subsidence, poses a double threat to JBLE-Langley AFB and Hampton.

The military assets in the Hampton Roads region are crucial for national defense and are a vital component to the local, regional, and state economies. The installations, and the civilian and military personnel employed at them, are linked to the community through their dependence on the same roadways, utility networks, infrastructure, and other community services and resources that serve the larger community. When these resources are constrained or impacted, it affects everyone – including military readiness which can have an adverse effect on the military mission.



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Considering the increased frequency at which weather events (e.g., sea level rise (SLR), storm surge, significant rain event, etc.) impact accessibility/mobility on the transportation network and along primary routes/corridors serving JBLE-Langley AFB and the adverse effect this can have on military readiness and the ability to execute the mission, it was determined that a resiliency plan needed to be developed for the LaSalle Avenue corridor.

This project will evaluate existing and future operational conditions, validate LaSalle Avenue as a high-priority/critical corridor serving the installation, and develop a resiliency plan that identifies prioritized improvements that will result in the ability to maintain accessibility to/from the installation.

The project will evaluate an approximate 1.5 mile segment of LaSalle Avenue from the LaSalle Avenue Gate to the north, to the interchange with Mercury Boulevard to the south. The LaSalle Avenue Gate serves approximately 25% of the traffic accessing JBLE-Langley AFB and is relatively new. However, it is located across a bridge that could become vulnerable to rising seas and storm surge. Additionally, the roadway from gate and adjacent area slope down into the base, which could be flooded. The 2018 JLUS Addendum notes that the City of Hampton and JBLE-Langley AFB should work together to identify and designate high priority routes where accessibility must be maintained during rush hour or in the event of an emergency.

As a part of the vulnerability assessment and resilience zone delineation for this project, data collection resources will include current FEMA Flood Insurance Rate Maps and Flood Insurance Studies in addition to Sea Level Rise studies. To augment the analyses, historical flood data, such as high tide and storm surge, high water marks, flood damage assessment, and street closures will be collected from various sources, including but not limited to National Oceanic and Atmospheric Administration (NOAA)'s National Weather Service, National Centers for Environmental Information (NCEI), and City of Hampton emergency management agencies.

The project will also consider sea level rise (SLR) and storm surge elevation data layers to assess baseline and projected flood risk areas along the defined LaSalle Avenue corridor. This exercise will result in the ability to identify the scale of risk that SLR and/or storm surge related flooding will have on the LaSalle Avenue corridor.

In addition to the focus on resiliency to naturally occurring events that could impact operations and/or the mission, JBLE-Langley AFB is anticipating a significant level of development and increases in personnel on the north side of the base (i.e., North Base area) in the next five (5) to seven (7) years. This expected growth will have a notable impact on traffic operations at the existing West Gate along N. Armistead Avenue, as well as internally to the base along select roadways and intersections not currently designed to support the anticipated increase in traffic volumes. It is expected that this growth will result in more traffic using the LaSalle Gate as a primary means of access to/from the installation as well as enhance the significance of LaSalle Avenue as a high-priority corridor critical to sustaining accessibility and the mission at JBLE-Langley AFB.



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With the expected increase in traffic volume demand traveling to/from the installation via LaSalle Avenue key components of the resiliency plan will include identification and evaluation of alternative courses of action (COAs), as well as the selection and prioritization of transportation infrastructure improvements that best serve future operations, accessibility, and safety.

The *LaSalle Avenue Corridor Resiliency Plan* project will include a working group of project stakeholders (e.g., JBLE-Langley AFB, City of Hampton, NASA LaRC, Virginia Department of Transportation (VDOT), York County, City of Poquoson, etc.) who will be expected to provide input on the various resiliency mitigation measures under consideration and serve as liaisons to their respective agencies by sharing general and technical information about the alternatives, findings, and project status over the life of the project. In addition to project stakeholder involvement, it is anticipated that up to two (2) Public Information Meetings will be held as a part of the project.

Project stakeholders will be asked to assist in the selection of a preferred COA and the prioritization of improvements for the LaSalle Avenue corridor based on a variety of evaluation criteria consisting of, but not limited to, consistency with project purpose and need, ability to maintain accessibility, operational readiness, traffic congestion, vehicle and pedestrian safety, multi-modal impacts, reliability, right-of-way impacts, planning level project cost, and constructability. The culmination of this task will be a prioritized list of proposed alternatives/improvements for the high-priority corridor to be considered for short, mid, and long-range planning, funding, and implementation.

The primary end goal of the *LaSalle Avenue Corridor Resiliency Plan* is a prioritized and strategically implementable list of improvements for the LaSalle Avenue corridor (i.e., an approximate 1.5 mile segment of LaSalle Avenue from the LaSalle Avenue Gate to the north, to the interchange with Mercury Boulevard to the south) that will provide the level of resiliency necessary to mitigate the potential impact of SLR, storm surge, or significant flooding events, on accessibility and/or the mission at JBLE-Langley AFB.

It is anticipated that the *LaSalle Avenue Corridor Resiliency Plan* project will be performed under the existing OEA grant West JBLE-Langley AFB ECF Alternatives Analysis. The scope of work for the project also falls within the existing City of Hampton Civil Engineering Design and Related Architectural, Environmental, and Consultation Studies and Services Contract.