

A FEW THOUGHTS TO CONSIDER FOR I-66 EXPANSION

May 2015

TRANSIT:

If the purpose is to reduce congestion, the proposed widening would not accomplish that – only a mass transit option would truly reduce congestion.

- VDOT should not be grandfathered out of the requirement to retain stormwater from I-66 as a whole since I-66 did not have adequate stormwater retention when it was originally designed and that has significantly contributed to the poor water quality of our county streams.
- In light of the lack of infrastructure spending capacity of the Orange line and the congestion of the Rosslyn tunnel, the recommended option would be a true bus rapid transit (PRT) from Haymarket all the way into DC complete with BRT stations in the middle of I-66 that would include pedestrian bridges from both sides like the Orange Line and Silver Line metro stations. These stations could easily be transformed into new Orange Line stations once Metro installs a new Rosslyn tunnel. This option would also allow the project to take full use of the median strip set aside for future Orange Line expansion since the construction of the future Orange Line expansion could be conducted in stages utilizing the infrastructure installed in this highway project. This option would also cause the least stormwater impacts and “takings” of property.

STORMWATER:

- Start out with a background statement that addresses the wisdom of sustainable systems derived from ecologically focused practices and their resulting benefits including stability of environmental functions within a range of acceptability, improved aesthetic quality and quality of life for residential and migratory species. An important element in all of this is water including surface and groundwater quality and supply. With predicted weather changes, it is likely that precipitation in our area will occur as shorter more intense storms with rapid runoff and reduced infiltration into the soil than now experienced. This will cause reduced groundwater recharge which otherwise sustain the flow of our stream systems. The increased energy of intense runoff will also cause further erosion and degradation of receiving streams. Following are some practices that can be implemented as part of the I-66 widening project that will address these concerns.
- Finished grading of the slopes and waterways adjacent to the paved sections of I-66 should result in minor breaks in the otherwise uniform slopes to capture the first ½ to 1-inch of runoff and allow it to infiltrate into the underlying soil.
- Prior to finished grading and planting of the slopes and waterways, the underlying compacted soils should be broken up to a depth of 3-feet with ripper bars.

- Use annual oats and/or rye for temporary erosion control seeding instead of the standard erosion control seed mix until final seeding and planting takes place. Do not use fescue, lespedeza and other species typically called for in VDOT projects.
- During finished grading, further amend the ripped soil by incorporating 1-2 inches of organic compost.
- Utilize seed mix recommended by FCRP in final seeding and plant with only native trees, shrubs and herbaceous plants.
- Conventional outfalls are similar to hydraulic cannons in their erosive impact to downstream channels and habitat. Although rock riprap is generally used to counter this erosive energy, it typically fails over time. The expansion of I-66 will do nothing but exacerbate this situation. A sand-based step-pool system should be installed at all existing and new outfalls. Fairfax County Stormwater Division, DPWES, has installed a number of these successful systems and can offer construction drawings and specifications.
- Shallow wetlands pools located at the lower end of these step-pool outfalls further buffer the receiving stream systems and provide habitat. They should be installed in every opportunity that presents itself.
- Parking lots and other large paved areas adjacent to and in close proximity to the I-66 project should be retrofitted along with their outfalls where public/private partnerships are possible.
- All stormwater detention ponds associated with the I-66 project should be designed with wetland pools to fully retain and treat the first ½ to 1-inch of runoff as was done on several of those on the 495 expansion project.