

### Notes from field visit on May 22, 2017 –

To review the newly completed landscaping along the 495 HOT Lanes project

These comments highlight certain areas of concern but this was not an exhaustive tour of the project area.

In general:

- A. The seed mix or volunteer herbaceous cover is largely fescue and there is a lot of Chinese lespedeza. This issue should be addressed at the construction document phase of work so that a native seed mix is specified, contractor provides delivery slips of seed as delivered, installation is per CD's and contractor is held to specifications through the warranty. This would ensure that the specified vegetative cover is established (or not threatened to fail) at the end of the warranty. Other regions within VDOT promote the support of monarchs (which would support other native pollinators) by 1. planting native milkweeds and 2. coordinating the mowing schedule to support pollinator life cycle. Given the high acreage and connective corridors within VDOT's control such policies have the capacity to make a substantial difference to pollinators which form a crucial basis for the local web of life. ACTION: Any future herbaceous seed mix should be native grasses and wildflowers and zero non-native invasives. VDOT specifications should require control of invasive non-native species through warranty. Note: Rudbeckia hirta and Chamaecrista fasciculata are reliable biennials (that could be included at very small percentages) to show the seed was evenly distributed. An annual cover crop (of annual rye, brown top millet, annual oats or winter wheat) may be required as well. **Do not use Crown or Hairy Vetch, White or Red Clover, Timothy, Barnyard or Orchard grass, Tall Fescue, Chinese Lespedeza, Weeping Love Grass or Lolium perenne.**
- B. There are many areas of bare ground. This does not meet the state E&S requirements for vegetative cover. Bare ground may lead to erosion, which was seen at many of the sites. ACTION: Soil in these areas may need to be amended with compo, tilled to a depth of 8 - 12" to promote root development, and seeded with a native grass and forb mix. Note: Rudbeckia hirta and Chamaecrista fasciculata are reliable biennials (that could be included at very small percentages) to show the seed was evenly distributed. An annual cover crop (of annual rye, brown top millet, annual oats or winter wheat) may be required as well. **Do not use Crown or Hairy Vetch, White or Red Clover, Timothy, Barnyard or Orchard grass, Tall Fescue, Chinese Lespedeza Weeping Love Grass or Lolium perenne**
- C. Heavy erosion in swales and un-vegetated areas will require review and evaluation by VDOT engineers to assess the hydrologic and hydraulic issues in light of the current conditions in order to determine the best solution to dissipate the energy of the run-off. Original design and installation method should be evaluated. **It is not acceptable for rip-rap to be the default solution.**

Specific Comments correspond to attached 4 pages of photos:

**SE quad at Braddock Rd interchange:** [\(Photos\)](#)

1. Bare soil and unstable drainage swale. Please see pictures.  
ACTION: VDOT engineers should evaluate the current hydrology of the site in light of the original design drawings and the installed conditions to determine the best energy dissipation approach. Rip-rap should not be the default solution.
2. Excessive compaction. Lack of vegetation.
3. Dumping of miscellaneous materials.

**NE quadrant at Braddock Road interchange: [\(Photos\)](#)**

4. High water volumes are overshooting the drainage swale that appears to be the intended route for water. This is causing major (18" to 24" deep) gullies that area rapidly increasing. ACTION: VDOT engineers should evaluate the current hydrology of the site in light of the original design drawings and the installed conditions to determine the best energy dissipation approach. Rip-rap should not be the default solution.
5. Lack of established vegetation.
6. Blocked ditch.

**SW quadrant of Rt. 236 interchange: [\(Photos\)](#)**

7. Deep gully forming at end of pipe. Sediment build up in Gas Easement preventing vegetation from establishing.
8. Lack of established vegetation
9. Invasive plants (Chinese lespedeza and tall fescue) dominant the herbaceous cover.

**NW quadrant of Rt. 236 interchange: [\(Photos\)](#)**

10. Staging area was never restored to its existing condition. The lot is compacted gravel that is not vegetated although vegetation is gradually creeping into the gravel around the edges. ACTION: VDOT engineers and landscape architects to propose methodology for returning site to previously existing condition or implement best management practice for off-setting the increase in impervious surface.
11. Aerial photos from GIS and Google illustrated the previous condition in 2003, the use of the site for staging in 2009 and the state of the site in 2015 and 2016.