

EXHIBIT R

KNOWN PRE-EXISTING HAZARDOUS SUBSTANCES

The table below identifies the Known Pre-Existing Hazardous Substances located within or directly adjacent to the I-66 Express Lanes Project. Reference the Hazardous Materials Technical Memorandum in addition to the other references provided.

| Summary | Description | Location |
|------------------------------------|--|--|
| Naturally Occurring Asbestos Soils | <p>Naturally occurring asbestos (NOA) is found in bedrock formations in Fairfax County as well as in previously disturbed soils within the bedrock formations. There are approximately 49 acres of NOA soils within existing right of way (ROW) and 153.1 acres of NOA soils within 500 feet of the current ROW limits.</p> <p>References: <i>Natural Asbestos Occurrences in the Eastern United States</i>. Bradley S. Van Gosen. http://pubs.usgs.gov/of/2005/1189/ <i>2006 Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Natural Asbestos Occurrences in the Eastern United States</i>. Bradley S. Van Gosen. http://pubs.usgs.gov/of/2005/1189/ <i>2008 Naturally Occurring Asbestos: Approaches for Reducing Exposure</i>. http://www.epa.gov/superfund/health/contaminants/asbestos/pdfs/noa_factsheet.pdf</p> | Within and 500 feet beyond the existing ROW limits between the US 50 and Route 123 interchanges. Redeposited disturbed soils within interchange of US 50 and I-66. |
| Former landfill | <p>Opened in 1962 and closed in 1982. Former I-66 landfill is approximately 110 acres with total waste accepted of 5 million tons. Ground water monitoring and methane extraction wells are located around the perimeter of the closed landfill. Approximately 700 cubic feet per minute of landfill gas is generated.</p> <p>Reference: http://www.fairfaxcounty.gov/dpwes/trash/dispsites.htm</p> | 4618 West Ox Rd. Fairfax |

| Summary | Description | Location |
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| Type B Structures & Asbestos Containing Material | <p>A determination on the classification (Type A or Type B) of protective coating of all metal on existing structures within the Project limits is required. In absence of any characterization, all structures are presumed to be Type B until paint tests conclude otherwise. In addition, bridge inspection for asbestos containing material should be conducted on all bridge structures within the Project corridor prior to construction activities or demolition of bridges.</p> <p>References: 2007 Road and Bridge Specs; VDOT Memo - Asbestos Containing Materials on Bridges - 2009</p> | All Existing Bridges and Structures Within Preferred Build Alternative |
| Undetermined environmental concern due to UST located on property | Recorded underground storage tank(s) located on property. | 8000 Iliff Drive, Dunn Loring |
| Unknown environmental concern due to petroleum spill | Recorded petroleum spill on property. | 8107 Cottage St., Dunn Loring |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 8121 Cottage St., Dunn Loring |
| Undetermined environmental concern for chemical(s) hazardous | Hazardous chemical(s) used or stored on property subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312, Tier 2 reporting. | 2700 Gallows Rd, Dunn Loring |
| Potential environmental concern due to LUST | Potential soil and groundwater contamination due to leaking underground storage tank(s) (LUST) on property. | 2800 Gallows Rd, Dunn Loring |

| Summary | Description | Location |
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| Unknown environmental concern due to AST | Recorded above ground storage tank(s) (AST) located on property. EPA ID # 10038455481 | 2675 Prosperity Ave, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 2677 Prosperity Ave, Fairfax |
| Undetermined potential environmental concern | Property is a Resource Conservation and Recovery Act (RCRA) Conditionally Exempt Small Quantity Generator. EPA ID VA000125666 | 2730 A-3 Prosperity Ave, Fairfax |
| Potential environmental concern due to LUST | Potential soil and groundwater contamination due to leaking tank(s) on property. | 2700 Dorr Ave, Fairfax |
| Potential environmental concern due to UST; Potential environmental concern due to dry cleaning facility | Former UST, potential soil and groundwater contamination unknown; former dry cleaner facility previously located on property. | 2701 Dorr Ave, Fairfax |
| Undetermined environmental concern | Property is a RCRA Small Quantity Generator. EPA ID# 110005256579 | 2704 Dorr Ave, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 2729 Dorr Ave, Fairfax |
| Undetermined potential environmental concern | Property is no longer RCRA regulated. EPA ID# VAD038798831 | 2711 Prosperity Ave, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 2731 Prosperity Ave, Fairfax |

| Summary | Description | Location |
|---|--|----------------------------------|
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | Hilltop Rd & Cedar Lane, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 9848 Sweet Mint Dr, Fairfax |
| Undetermined environmental concern for hazardous chemical(s) | Property subject to regulated hazardous material licensing. | 2846-A Nutley St, Fairfax |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tanks on property. | 10401 White Granite Dr, Oakton |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 10003 Five Oaks Dr, Fairfax |
| Undetermined environmental concern due to UST located on property | Recorded underground storage tank(s) located on property. | 10560 Arrowhead Rd, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 10298 Antietam Ave, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 3315 Willow Crescent Dr, Oakton |

| Summary | Description | Location |
|--|--|-----------------------------|
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tank(s) on property. | 10619 Elmont Ct, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 10714 Oak Pl, Fairfax |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 10717 Oak Pl, Fairfax |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 11301 Valley Rd, Oakton |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 3520 Jermantown Rd, Fairfax |
| Potential environmental concern due to leaking tanks and petroleum spill | Potential soil and groundwater contamination due to leaking tank(s) and/or spill(s) on property. | 3601 Jermantown Rd, Fairfax |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tank(s) on property. | 10807 Norman Ave, Fairfax |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tank(s) on property. | 10809 Norman Ave, Fairfax |

| Summary | Description | Location |
|---|---|--|
| Undetermined environmental concern for hazardous chemical(s) | Property subject to regulated hazardous materials registration. EPA registration #110010720103 | 10917 Marilata Ct, Fairfax |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tank(s) on property; property. RCRA small quantity generator; CERC-NFRAP site. EPA ID# 110005230026 | 3609 Jermantown Rd, Fairfax |
| Potential environmental concern for hazardous chemical(s) | Hazardous chemical(s) used or stored on property. EPA ID# 110018935331 | 3701 Pender Dr, Fairfax |
| Potential environmental concern due to dry cleaning facility | RCRA small quantity generator. EPA ID#110005259460 | 11250 Waples Mill Rd, Fairfax |
| Undetermined environmental concern for hazardous chemical(s) | RCRA conditionally exempt small quantity generator. EPA ID# 11000817676 | 11244 H-2 Waples Mill Rd, Fairfax |
| Undetermined environmental concern for hazardous chemical(s) | RCRA conditionally exempt small quantity generator. EPA ID VAR000522938 | 11937 Fair Oaks Mall, Fairfax |
| Potential environmental concern due to Leaking Tanks and UST | Potential soil and groundwater contamination due to leaking tank(s) on property. RCRA conditionally exempt small quantity generator. EPA ID# 110005257765 | 12015 Lee Jackson Hwy, Fairfax |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 12255 Fair Lakes Promenade Dr, Fairfax |

| Summary | Description | Location |
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| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 11400 Random Hills Rd, Fairfax |
| Undetermined environmental concern for hazardous chemical(s) | RCRA conditionally exempt small quantity generator. EPA ID# VAR000513564 | 4463 Market Commons Dr, Fairfax |
| Undetermined environmental concern for dry cleaning solvents | Property potential dry cleaners site. | 4469 Market Commons Dr, Fairfax |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 12601 Fair Lakes Dr, Fairfax |
| Undetermined environmental concern | Property monitored for air pollution discharges, EPA ID# 11000892293 | 4500 West Ox Road, Fairfax |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | Fair Lakes Parkway & I-66 |
| Potential environmental concern | Property registered for hazardous chemicals. EPA ID # 1100224532807 | 13059 Fair Lakes Pkwy, Fairfax |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 4923 Sammey Joe Dr, Fairfax |

| Summary | Description | Location |
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| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 5120 Veronica Rd, Fairfax |
| Undetermined environmental concern for dry cleaning solvents | Property potential dry cleaners site. | 5123 Travis Edward Way, Centreville |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 5602 Gresham Ln, Centreville |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 5674 Cabells Mill Ct. Centreville |
| Potential environmental concern due to UST | UST on property. | 5545 Mount Gilead Rd, Centreville |
| Potential environmental concern due to leaking tanks and UST | Potential soil and groundwater contamination due to leaking tank(s) on property. | 5611 Mount Gilead Rd, Centreville |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 14500 Lee Hwy, Centreville |
| Undetermined environmental concern due to petroleum spill | Recorded petroleum spill on property. | 14518 Lee Hwy, Centreville |

| Summary | Description | Location |
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| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tank(s) on property. Hazardous chemical(s) used or stored on property subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Tier 2 reporting. EPA ID# 110017764579 | 15011 Compton Rd, Centreville |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. | 14985 Walter Robinson Ln, Haymarket |
| Potential environmental concern due to leaking tanks | Potential soil and groundwater contamination due to leaking tank(s) on property. Property potential gas/filling/service station site | 14850 Jordan Ln, Haymarket |
| Undetermined environmental concern for hazardous chemicals | RCRA small quantity generator. EPA ID 110006458706 | 6897 Gateway Ct, Manassas |
| Potential environmental concern for petroleum spill | Recorded petroleum spill on property. RCRA conditionally exempt small quantity generator and property subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Tier 2 reporting. EPA ID # VAR000508440 | 7000 Gateway Ct/I-66, Manassas |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 7012 Tech Cir, Manassas |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 7060 Tech Cir, Manassas |
| Undetermined environmental concern due to UST | UST(s) on property; property subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Tier 2 reporting. | 7777 Infantry Ridge Rd, Manassas |

| Summary | Description | Location |
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| Potential environmental concern due to AST, UST and petroleum spills | AST(s) and UST(s) located on property; petroleum spill(s) recorded on property. RCRA conditionally exempt small quantity generator and subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Tier 2 reporting. EPA ID# 10007320130 | 10201 Balls Ford Rd, Manassas |
| Potential environmental concern due to AST, UST and petroleum spills | Petroleum spill(s) recorded on property. AST located on property. Property subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Tier 2 reporting. | 7400 Infantry Ridge Rd, Manassas |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking UST(s) on property; RCRA no longer requires reporting. Property potential gas/filling/service station site. | 7025 Sudley Rd, Manassas |
| Potential environmental concern due to AST, UST and petroleum spills | AST(s) and UST(s) located on property. Recorded petroleum spill on property. RCRA Large Quantity Generator. EPA ID# 110012195846 | 10315 Balls Ford Rd, Manassas |
| Potential environmental concern due to leaking tanks and UST | Potential soil and groundwater contamination due to leaking tanks on property. 2020 Corrective Action Program List. RCRA Small Quantity Generator and RCRA Treatment, Storage & Disposal facility. Property potential gas/filling/service station site. EPA ID # VAD048565279. | 10335 Balls Ford Rd, Manassas |
| Undetermined environmental concerns | Property monitored for air pollution discharges. EPA ID# 110007326170 | 10349 Balls Ford Rd, Manassas |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 10365 Balls Ford Rd, Manassas |

| Summary | Description | Location |
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| Undetermined environmental concern for petroleum contamination | RCRA Small Quantity Generator; Property potential gas/filling/service station site. | 10369 Balls Ford Rd, Manassas |
| Undetermined environmental concern for dry cleaning solvents | Property potential dry cleaners site. | 7200 S. Hill Dr, Manassas |
| Potential environmental concern for petroleum spill | Recorded petroleum spill on property. | 10953 Lute Ct, Manassas |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 7220 Nathan Ct, Manassas |
| Undetermined environmental concern for petroleum contamination | Property potential gas/filling/service station site. | 7222 Nathan Ct, Manassas |
| Undetermined environmental concern for petroleum contamination | Recorded petroleum spill on property. | I66/US 29 (Gainesville) Interchange |
| Undetermined environmental concern due to AST | AST located on property. | 7243 Gabe Ct, Gainesville |

| Summary | Description | Location |
|---|---|--------------------------------------|
| Potential environmental concern due to leaking tanks, LUST, and AST | Potential soil and groundwater contamination due to leaking tanks on property. RCRA Small Quantity Generator. EPA ID 110006454354 | 10660 Automotive Dr, Manassas |
| Potential environmental concern due to Leaking Tanks, LUST and AST | Potential soil and groundwater contamination due to leaking tanks on property. AST(s) on property. RCRA No Longer Requires reporting. | 7110 Sudley Rd, Manassas |
| Potential environmental concern due to Leaking Tanks and LUST | Potential soil and groundwater contamination due to leaking tanks on property. Property potential gas/filling/service station site. RCRA Small Quantity Generator. EPA ID# 1100178616 | 7111 Sudley Rd, Manassas |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tanks on property. Property potential gas/filling/service station site. RCRA No Longer Requires reporting. EPA ID# 110008193276 | 7113 Sudley Rd, Manassas |
| Potential environmental concern for petroleum spill | Recorded petroleum spill on property; VA Voluntary Remediation Program. | US 29 and Wellington Rd intersection |
| Potential environmental concern due to leaking tanks and LUST | Potential soil and groundwater contamination due to leaking tanks on property. | 13709 Old Lee Hwy, Prince William |
| Undetermined environmental concern for petroleum spill | Recorded petroleum spill on property. | 12801 Randolph Ridge Rd, Manassas |
| Undetermined environmental concern | RCRA Conditionally Exempt Small Quantity Generator, EPA ID # VAR000521369 | 12775 Randolph Ridge Ln, Manassas |