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Anacostia River Aquatic Resources

Fish Resources

Because the lower Anacostia is a large tidal riverine system that enters the Potomac, the fish community in the lower Anacostia is not substantively different from what is collected in the Potomac in the vicinity of Ronald Reagan Airport (J. Seimen, personal communication). In 2002, 39 fish species were collected from the Anacostia. Key species include sunfish, catfish, largemouth bass, gizzard shad, and carp.

As stated above, fish tissue samples of certain species show elevated levels of contaminants, including chlordane and PCBs. Biological samples from the site suggest a severely stressed benthic community. Further, U.S. Fish and Wildlife Service studies have documented a prevalence of tumors and skin lesions in bottom feeding and bottom-associated fish species. Therefore, this segment of the Anacostia River does not support the fish consumption use designation and public health advisories are in place. Issued in November 1994, the advisories urge non-consumption of catfish, carp, and eels and limited consumption of other fish species caught in all District of Columbia waters. No commercial harvesting of aquatic species occurs within the District of Columbia or within the project area (John Seimen, personal communication).

Submerged Aquatic Vegetation

DC DOH has conducted annual shoreline surveys of SAV since 1993. The calendar year 2003 results were summarized in DOH's Fish and Wildlife Management Division report #F-2-R-18. The data indicate that SAV was nearly non-existent in the Anacostia, with only one species (*Vallisneria americana*) identified in the lower Potomac and very small bed coverage (0.02 acres). The inability of SAV to thrive in the Anacostia was attributed to high turbidity of the waters, and the presence of toxics and excessive nutrients.

Chesapeake Bay Program Area of Concern

The Anacostia River is listed as one of three "Areas of Concern" by USEPA's Chesapeake Bay Program. The Chesapeake Bay 2000 Agreement's goals for these priority urban waters include: (1) supporting the restoration of the Anacostia River, Baltimore Harbor, Elizabeth River, and their watersheds as models for urban river restoration in the Bay basin; and (2) by 2010, through mutual efforts of the District of Columbia and its watershed partners, reducing pollution loads to the Anacostia River to eliminate public health concerns and achieve the living resource, water quality, and habitat goals of this and past agreements. There are numerous federal, state and local efforts to help restore the watershed.

Navigation

The Anacostia River is a navigable water body and is supported by the Federal Navigation Channel in the Potomac River south of Washington. The lower Anacostia fully supported its navigation use designation in the District's 2002 §305(b) report, and is the site of several marinas. Depths in the Anacostia are maintained by federal dredging upstream to the 12th Street Bridge, but the navigation aids are only maintained to just above Potomac Avenue.

EA Engineering, Science and Technology

15 Loveton Circle
Sparks, MD 21152
Telephone: 410-771-4950
Fax: 410-771-4204

PROJECT CORRESPONDENCE

TO: Jamie Maughan, CH2MHill **DATE:** 14 July 2004

FROM: Bill Rue and Mary-Alice Koeneke

SUBJECT: Terrestrial Natural Resources at the Proposed Monofill and Head Cell Sites Dalecarlia Reservoir

Ref: Washington Aqueduct

The documents attached are being transmitted in fulfillment of our agreement to provide a description of the existing natural environment on the proposed Dalecarlia Monofill Site.

Michelle Harden and Mary Alice Koeneke conducted a site visit on 6 July 2004. Michael C. Peterson, environmental engineer, Washington Aqueduct, USACE, and Laura Haught of CH2MHill assisted them with site orientation and access. Because of USACE safety concerns, access to the monofill site was restricted to the outer perimeter where field reconnaissance observations could be made at points along the existing reservoir perimeter road.

Attached are: 1) Text describing the natural resources for the affected environment section of the DEIS, including tables of species observed and expected to occur; 2) A figure based on a USGS topographic map of the area describing the features presented in the literature and including the observation station locations from the field survey; and 3) a photographic record of the site.

Dalecarlia Water Treatment Facility Alternative 2 – Proposed Monofill

Affected Environment

1.0 Proposed Monofill Site Description

Alternative 2 proposes the use of a monofill site for storage of residuals from the Dalecarlia Sedimentation Basins and the Georgetown Reservoir. The proposed monofill site as conceived would encompass approximately 30 acres of a 47-acre deciduous hardwood forest located on the eastern side of the Dalecarlia Reservoir (Figure 1). The area slopes westward toward the Dalecarlia Reservoir and Potomac River. The site includes some of the highest elevations on the property ranging from 200 –250 ft above mean sea level and abuts the highest elevation on the property 270 ft. above mean sea level adjacent to the Dalecarlia Parkway on the southwestern boundary (USACE, 1994). The site terrain is intersected by several east-west oriented cuts between small, steep slopes.

The proposed monofill site is bordered to the north by a residential area and on the east by the Dalecarlia Parkway. The southern perimeter slopes steeply southward to a cleared easement adjacent to an eighteen-inch sanitary sewer line that originates on the eastside of Dalecarlia Parkway. The sanitary sewer line easement is a relatively flat, open area approximately 75 feet in width aligned east to west and lying between two steeply sloped banks. According to the proposed alternative the steep embankments on either side of the easement would be bridged for road access to the monofill site. The road over the easement would be elevated. A storm sewer runs parallel to the sanitary sewer line and into East Creek near the current reservoir access road. A segment of East Creek depicted on topographic maps of the area was no longer visible in the easement; it appeared that the creek was no longer flowing above ground and may have been channelized underground into the storm sewer though no definite determination could be made. Erosion from episodes of runoff was evident in the easement and along the steeply sloped bank opposite the proposed monofill site. Exposed soil in open areas and in eroded channels was fine-grained sand.

The western perimeter of the deciduous woods in the vicinity of the monofill site follows the channel of East Creek as it flows northward along the current gravel access road for the reservoir. East Creek flows north until it meets with Mill Creek in the vicinity of the spillway in the northern corner of Dalecarlia Reservoir. The west bank of East Creek immediately adjacent to the reservoir access road has been fortified with large quarried stones; the east bank along the deciduous forest edge is naturally formed. The bank height varies in from approximately 8 to 15 inches on both sides of the creek. Water in the creek was approximately 2-6 inches deep, clear and flowing. The substrate varies from predominantly sand to sand and some stones. Gravel/sand bars are present in several stretches of the creek.

EA Engineering, Science and Technology, Inc., (EA) conducted a site visit to assess and characterize the terrestrial resources of the proposed monofill site on July 06,

2004. Access to the interior of the site was not possible due to United States Army Corps of Engineers (USACE) safety concerns, field observations were completed at a series of small grassy pull-offs adjacent to East Creek from the southern sanitary sewer line area to the spillway of the reservoir. All data collected was recorded based on observations collected around the perimeter of the monofill site. No information was collected for the interior of the 30-acre site. Because information gathered from field observations was limited by lack of access the resource descriptions provided below are supplemented with information found in the Environmental Baseline Report Washington Aqueduct Dalecarlia, Georgetown, and McMillan Reservoirs prepared by the US Army Corps of Engineers (1994).

1.1 Botanical Resources

The 30-acre monofill site is part of a 47-acre plot of deciduous woods on the eastern side of the Dalecarlia Reservoir and entirely within the Dalecarlia Water Treatment Facility property. A general description of the land adjacent to the Dalecarlia Reservoir in the baseline assessment report describes habitats present as oak-hickory/mixed hardwood forest and a bottomland forest (USACE 1994). Field observations on July 6, 2004 in the proposed monofill site concurred with the general assessment description and found the forest to be a mixed deciduous hardwood dominated by oaks. A plant species inventory developed during the site visit is presented in Table 1.

The dominant forest canopy species were northern red oak (*Quercus rubra*), tulip poplar (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), southern red oak (*Quercus falcata*), cherry (*Prunus sp.*), and hickory (*Carya* sp.). The understory was comprised of younger trees of these species and also included sassafras (*Sassafras albidum*), box elder (*Acer negundo*), willow oak (*Quercus phellos*) and pawpaw (*Asimina triloba*). Shrubs included raspberry (*Rubus* sp.). Vines found in the understory were poison ivy (*Toxicodendron radicans*) and wild grape (*Vitis* sp.). Little herbaceous growth was observed within the proposed site. Species observed included False Nettle (*Boehmeria cylindrica*) and lady's thumb (*Polygonum persicaria*). The dominant groundcover species was Japanese stilt grass (*Microstegium vimineum*) comprising most of the ground layer. Occasional patches of Christmas fern (*Polystichum acrostichoides*) were also observed.

Botanical species identified from observation points along the gravel access road on the western edge of the proposed site were consistent with the sites in the vicinity of the southern boundary and proposed monofill access road. In open areas around the edge of the proposed site a few other species were noted including black locust (*Robinia pseudoacacia*), princess-tree (*Paulownia tomentosa*), slippery elm (*Ulmus rubra*), common mullein (*Verbascum thapus*), and New York ironweed (*Veronia noveboracensis*).

Of the species identified in the vicinity of the monofill site, several are considered non-native including princess-tree, privet, field bindweed, Lady's thumb, Japanese knotweed, and Japanese stilt-grass.

Table 1 Plant Species Observed in the Monofill Area, Washington Aqueduct 2004

Scientific Name	Common Name
Deciduous	
Acer rubrum	Red Maple
Acer negundo	Box-Elder
Asimina triloba	Common Pawpaw
Carya sp.	Hickory species
Fagus grandifolia	American Beech
Liriodendron tulipifera	Tulip-tree
Paulownia tomentosa	Princess-tree
Platanus occidentalis	Sycamore
Prunus sp.	Cherry species
Quercus phellos	Willow Oak
Quercus alba	Eastern White Oak
Quercus falcata	Southern Red Oak
Quercus rubra	Northern Red Oak
Robinia pseudoacacia	Black Locust
Sassafras albidum	Sassafras
Ulmus rubra	Slippery Elm
Shrubs	
Ligustrum vulgare	Privet
Rubus sp.	Raspberry species
Vines	
Toxicodendron radicans	Poison Ivy
Vitis sp.	Grape species
Herbaceous	
Boehmeria cylindrical	False Nettle
Convolvulus arvensis	Field Bindweed
Iris versicolor	Larger Blue Flag
Lepidium virginicum	Wild Peppergrass
Melilotus officinalis	Sweet Yellow Clover
Polygonum cuspidatum	Japanese Knotweed
Polygonum persicaria	Lady's Thumb
Trifolium repens	White Clover
Verbascum thapsus	Common Mullein
Vernonia noveboracensis	New York Ironweed
Ground Cover	
Microstegium vimineum	Japanese Stiltgrass
Polystichum acrostichoides	Christmas Fern

1.2 Wildlife Resources

The Dalecarlia Reservoir property is located in an urban-suburban section of the District of Columbia and Montgomery County, Maryland (USACE 1994). The earlier baseline ecological assessment conducted in 1994 (USACE 1994) described the existing wildlife resources of the Dalecarlia Reservoir to include species adapted to human disturbance and activity as well as those associated with an aquatic environment.

Reptiles and Amphibians

For the USACE baseline assessment in 1994, a list of reptiles and amphibians potentially associated with the Dalecarlia Reservoir was generated by the Center for Urban Ecology, under the National Park Service. EA reviewed the list of reptiles and amphibians for habitat and life history requisites. Species considered to be potentially present in the deciduous hardwood habitat of the proposed monofill site are presented in Table 2. An American toad was the only species on the list that was observed during the field survey in the vicinity of the proposed monofill site.

Table 2. Reptile and Amphibian Species Potentially Present on the Proposed Monofill Site (based on USACE, 1994).

Scientific Name	Common Name
Amphibians	
Ambystoma maculatum	Spotted Salamander
Ambystoma opacum	Marbled Salamander
Plethodon cinereus	Red-backed Salamander
Bufo americanus	American Toad
Scaphiopus holbrookii	Eastern Spadefoot Toad
Rana sylvatica	Wood Frog
Reptiles	
Carphophia amoenus	Worm Snake
Coluber constrictor	Northern Black Racer
Diadophis punctatus	Southern Ringneck Snake
Elaphe obsolete	Black Rat Snake
Heterodon platyrhinos	Eastern Hog-nosed Snake
Lampropeltis gestulus	Eastern Kingsnake
Thamnophis sirtalis	Eastern Garter Snake
Agkistrodon contortrix	Copperhead
Terrapene carolina	Eastern Box Turtle
Eumeces inexpectatus	Southeastern Five-lined Skink

Mammals

Mammals expected to inhabit the vicinity of the proposed monofill site based on the biological assessment (USACE 1994) include opossum (*Dedelphis virginiana*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), white-tailed deer (*Odocoileus virginianus*) and eastern cottontail (*Sylvilagus floridanus*) as well as a variety of small rodents such as mice, moles, shrews, and voles. Sightings of mammals during the field survey at the monofill site included tracks and sign as well as brief sightings of red fox (*Vulpes vulpes*) and gray squirrel and are presented on Table 3.

Birds

The timing of the field assessment survey for July determined that the avian species observed in the vicinity of the proposed monofill site could be categorized as either summer resident species or year-round resident species. By definition, a summer resident species migrates in fall to wintering grounds further south and returns in the spring to nest in its breeding habitat. Examples of summer resident species observed in the vicinity of the monofill site are Acadian flycatcher (*Empidonax virescens*), great crested flycatcher (*Myiarchus crinitus*), red-eyed vireo (*Vireo olivaceous*), yellow-throated vireo (*Vireo olivaceous*), house wren (*Troglodytes aedon*), blue-gray gnatcatcher (*Polioptila caerulea*), and Kentucky warbler (*Oporornis formosus*).

Year-round species are those that remain throughout the year in a given habitat. Examples of resident species are red-bellied woodpecker (*Melanerpes carolinus*), downy woodpecker (*Picoides pubescens*), American crow (*Corvus brachyrhynchos*), tufted titmouse (*Baeolophus bicolor*), Carolina chickadee (*Poecile carolinensis*), white-breasted nuthatch (*Sitta carolinensis*), and Carolina wren (*Thryothorus ludovicianus*).

Near the residential area at northern end of the proposed monofill site species such as mourning dove (*Zenaida macroura*), house wren, (*Troglodytes aedon*), American robin (*Turdus migratorius*), European starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*) were observed. These species are well-known inhabitants of urban-suburban areas and are tolerant of human activity. Turkey vulture (*Cathartes aura*), black vulture (*Cathartes atratus*) and chimney swift (*Chaetura pelagica*) were observed flying over the site during the field visit..

Fledged young of several species were noted during the site visit and provided evidence of successful nesting for those species. Observed young of red-bellied woodpeckers, Carolina chickadees, Carolina wrens, blue-gray gnatcatchers, and American robins were documented. A complete list of bird species observed during the site visit and their seasonal occurrence is presented in Table 3.

In general, the species observed in the vicinity of the proposed monofill site are relatively common species found in deciduous woodlands and suburban neighborhoods in the Northern Virginia-DC-Maryland area.

Insects

Insects identified during the site visit are presented in Table 3. Primarily butterflies, they were most often associated with the open areas surrounding the edge of the proposed monofill site.

Table 3. Wildlife Species Observed in the Vicinity of the Proposed Monofill Area, Washington Aqueduct, 2004

Scientific Name	Common Name	
	Insects	
Papilio glaucus	Eastern Tiger Swallowtail	
Pieris rapae	Cabbage White Butterfly	
Polygonia comma	Eastern Comma	
Ancyloxypha numitor	Least Skipper	
Libellula luctuosa	Widow Skimmer Dragonfly	
Diapheromera femorata	Walking Stick	
	Birds	
		Occurrence[a]
Cathartes aura	Turkey Vulture	R
Cathartes atratus	Black Vulture	R
Accipiter	Accipiter Hawk	R
Zenaida macroura	Mourning Dove	R
Chaetura pelagica	Chimney Swift	S
Melanerpes carolinus	Red-bellied Woodpecker	R
Picoides pubescens	Downy Woodpecker	R
Empidonax virescens	Acadian Flycatcher	S
Myiarchus crinitus	Great Crested Flycatcher	S
Tyrannus tyrannus	Eastern Kingbird	S
Vireo olivaceous	Red-eyed Vireo	S
Vireo flavifrons	Yellow-throated Vireo	S
Corvus brachyrhynchos	American Crow	R
Baeolophus bicolor	Tufted Titmouse	R
Poecile carolinensis	Carolina Chickadee	R
Sitta carolinensis	White-breasted Nuthatch	R
Thryothorus ludovicianus	Carolina Wren	R
Troglodytes aedon	House Wren	S
Polioptila caerulea	Blue-gray Gnatcatcher	S
Turdus migratorius	American Robin	R
Sturnus vulgaris	European Starling	R

Dumetella carolinensis	Gray Catbird	S
Oporornis formosus	Kentucky Warbler	S
Melospiza melodia	Song Sparrow	R
Cardinalis cardinalis	Northern Cardinal	R
Quiscalus quiscula	Common Grackle	S
Caruelis tristis	American Goldfinch	R
Passer domesticus	House Sparrow	R
Mammals		
Vulpes vulpes	Red Fox	
Sciurus carolinensis	Gray Squirrel	

[a] R= year-round resident species; S=summer resident species

2.0 Proposed Head Cell Site at the Dalecarlia Water Treatment Facility Forebay Area Site Description

The forebay for the Dalecarlia Reservoir is located on the northwestern end of the reservoir. The grassy area along the northern edge of the forebay is proposed for the construction of a head cell for removal of sediment. Field reconnaissance to assess the habitat and wildlife in the area of the proposed head cell site and the current forebay spoils area was conducted with the survey at the proposed monofill site on July 6, 2004.

The forebay site was comprised of a relatively flat, open terrain bounded by mowed/maintained lawn, the gravel access road and a buffer of deciduous woods on the northwest and southeast. The forebay spoils area was located in a wooded upland site adjacent to Little Falls Branch just to the north of the forebay. Both areas have been disturbed by maintenance and operational activities of the Dalecarlia Water Treatment Facility.

2.1 Botanical Resources

Most of the area surrounding the forebay has been disturbed by human activities associated with the maintenance and operation of the Dalecarlia Reservoir. The immediate area surrounding the forebay is open and comprised of mowed and maintained lawn with a row of approximately 6-8 eastern red cedars (*Juniperus virginiana*). The gravel access road separates the mowed maintained area from a thin buffer of trees, shrubs and vines along the property boundary with the Capital and Crescent Trail a public recreation trail. The area is also in close proximity to a residential area. Many of the species identified in the deciduous woods of the proposed monofill site were present in the buffer area surrounding the forebay and at the forebay spoils area. A few species of consistent with the more open and disturbed characteristics of the areas were identified and included species such as daisy fleabane (*Erigeron annuus*), Clayton's bedstraw (*Galium tinctorium*), and field bindweed (*Convolvulus arvensis*). Several species of non-native vegetation were identified in the forbay are and the forebay spoils site. These are princess-tree, honeysuckle, multiflora rose, English ivy, field bindweed and Japanese stiltgrass. Species identified at the forebay area and forebay spoils site are presented in Table 4.

Table 4 Plant Species Observed in the Forebay Area, Washington Aqueduct, 2004

Scientific Name	Common Name
Coniferous	
Juniperus virginiana	Eastern Red Cedar
Deciduous	
Acer negundo	Box-Elder
Acer platanoides	Norway Maple
Asimina triloba	Common Pawpaw
Fagus grandifolia	American Beech
Liriodendron tulipifera	Tulip tree
Paulownia tomentosa	Princess-tree
Platanus occidentalis	Sycamore
Prunus sp.	Cherry species
Quercus phellos	Willow Oak
Quercus rubra	Northern Red Oak
Robinia pseudoacacia	Black Locust
Sassafras albidum	Sassafras
Ulmus rubra	Slippery Elm
Shrubs	
Lindera benzoin	Spicebush
Lonicera sp.	Honeysuckle species
Rosa multiflora	Multiflora rose
Rubus sp.	Raspberry species
Rubus odorous	Flowering Raspberry
Viburnum dentatump.	Southern Arrowwood
Vines	
Hedera helix	English Ivy
Parthenocissus quinquefolia	Virginia Creeper
Toxicodendron radicans	Poison Ivy
Vitis sp.	Grape species
Herbaceous	
Boehmeria cylindrical	False Nettle
Erigeron annuus	Daisy Fleabane
Galium tinctorium	Clayton's Bedstraw
Convolvulus arvensis	Field Bindweed
Verbascum thapsus	Common Mullein
Vernonia noveboracensis	New York Ironweed
Groundcover	
Microstegium vimineum	Japanese Stiltgrass
Polystichum acrostichoides	Christmas Fern

2.0 Wildlife Resources

In general, the wildlife resources of the wooded buffer around the forebay and in the forebay spoils area are expected to be similar to those found in the vicinity of the monofill site. Potential reptile and amphibian species inhabiting the area are those listed previously on Table 2. One documented observation of a copperhead snake occurred in the forebay spoils area on a past visit (Michael Peterson, USACE personal communication).

Mammals

The open, mowed/maintained habitat surrounding the forebay does not provide appropriate habitat for woodland species but is expected to have raccoons, opossum, white-tailed deer, striped skunk, ground hog and other mammals foraging in the area. A large burrow was found along the edge of the access road and may have been the burrow of a red fox or groundhog (*Marmota monax*) but there were no clues to provide certain identity. White-tailed deer tracks were noted and a family of voles (*Microtus* sp.) was observed in the dense leaf litter in the wooded buffer along the southern edge of the forebay.

Birds

Birds in the vicinity were either using the wooded buffer or found in the open area immediately adjacent to the forebay. Species using the open area were belted kingfisher (*Ceryle alcyon*), eastern phoebe (*Sayornis phoebe*), eastern kingbird (*Tyrannus tyrannus*), barn swallow (*Hirnudo rustica*), American robin, and brown-headed cowbird (*Molothrus ater*). Species found in the wooded buffer were similar to those identified in the deciduous hardwood habitat at the proposed monofill site and also included northern flicker (*Colaptes auratus*), and eastern wood-pewee (*Contopus virens*). A great blue heron was observed flying over the reservoir at the forebay area. A list of wildlife species observed during the site visit is presented in Table 5.

Insects

Insects identified during the site visit are presented in Table 5. Primarily butterflies, they were most often associated with the open areas surrounding the edge of the forebay.

Table 5. Wildlife Species Observed in the Forebay Area, Washington Aqueduct, 2004

Scientific Name	Common Name
Insects	
Pieris rapae	Cabbage White Butterfly
Celestrina ladon neglecta	Summer Azure Butterfly
Birds	
Ardea herodias	Great Blue Heron
Branta Canadensis	Canada Goose
Aix sponsa	Wood Duck
Ceryle alcyon	Belted Kingfisher
Melanerpes carolinus	Red-bellied Woodpecker
Picoides pubescens	Downy Woodpecker
Colaptes auratus	Northern Flicker
Contopus virens	Eastern Wood-Pewee
Empidonax virescens	Acadian Flycatcher
Sayornis phoebe	Eastern Phoebe
Myiarchus crinitus	Great Crested Flycatcher
Vireo olivaceous	Red-eyed Vireo
Hirundo rustica	Barn Swallow
Poecile carolinensis	Carolina Chickadee
Sitta carolinensis	White-breasted Nuthatch
Thryothorus ludovicianus	Carolina Wren
Polioptila caerulea	Blue-gray Gnatcatcher
Utrdus migratorius	American Robin
Cardinalis cardinalis	Northern Cardinal
Molothrus ater	Brown-headed Cowbird
Mammals	
Microtus sp.	Vole sp.
Odocoileus virginianus	White-tailed Deer

3.0 Rare, Threatened and Endangered Species

The Environmental Baseline Report prepared by the USACE (1994) states that except for possible occasional transient individuals, no rare, threatened or endangered (RTE) species are known to occur at the Dalecarlia Reservoir. For purposes of this environmental assessment, lists of RTE and Natural Heritage Program species were obtained for Washington D.C. and Montgomery County, Maryland. Washington D.C. currently has a list of three federally listed species: Hay's Spring Amphipod (*Stygobromus hayi*) – endangered; bald eagle (*Haliaeetus leucocephalus*) – threatened and proposed for delisting; and eastern puma (*Felis concolor cougar*) - endangered. Montgomery County, MD also has three federally listed species: dwarf wedge mussel (*Alasmidonta heterodon*) - endangered, bald eagle - threatened and proposed for

delisting, and a plant, small whorled pogonia (*Isotria medeoloides*) - threatened. Of these small whorled pogonia is the only species that uses deciduous woods as habitat.

The small whorled pogonia is generally known from open, dry, deciduous woods with acid soil. Where it occurs in habitat with relatively high shrub coverage or high sapling density, flowering appears to be inhibited. Flowering occurs from about mid-May to mid-June, with the flowers apparently lasting only a few days to a week or so. Also, this plant doesn't necessarily flower annually. Individual plants may not flower every year; and extended dormancy, although not scientifically documented, is purported to occur under certain conditions (USFWS Endangered Species website).

4.0 References

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United States Fish and Wildlife Service Endangered Species - Species Account: Small Whorled Pogonia Website: http://endangered.fws.gov/i/q/saq1q.html. Accessed on 13 June 2004.

EA Engineering, Science, and Technology, Inc.

Photographic Record

Dalecarlia Water Treatment Facility Proposed Monofill Site Vicinity
Washington D.C.
06 July 2004

Deciduous woods near the proposed monofill site looking north from the vicinity of the southern boundary.

Deciduous woods near the proposed monofill site looking northward from the vicinity of the southern boundary.

Deciduous woods near the proposed monofill site looking southeast.

Easement in the vicinity of the southern boundary of the proposed monofill.

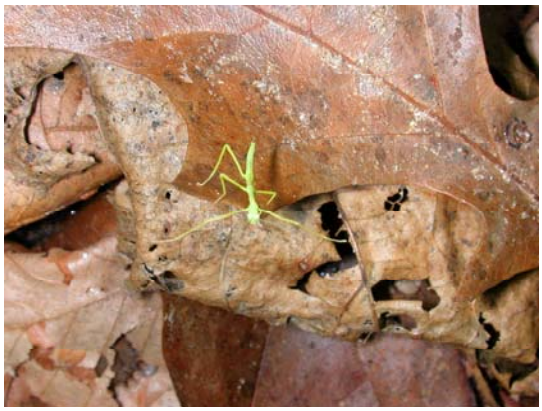
Easement – dry creek bed along sanitary sewer alignment near southern edge of monofill site.

American toad observed in the vicinity of the southern boundary of the proposed monofill site.

EA Engineering, Science, and Technology, Inc.

Photographic Record

Dalecarlia Water Treatment Facility Proposed Monofill Site Vicinity
Washington D.C.
06 July 2004



Walking stick insect on floor of deciduous woods at proposed monofill site southern boundary.

Proposed monofill site along the western boundary and adjacent creek.

Sewer line access road above northern boundary of the proposed monofill site.

The northwestern boundary of the proposed monofill site near residential boundary.

Dalecarlia forebay. Site of proposed head cell facility.

Current forebay spoils area, Dalecarlia Reservoir

March 5, 2004 - Site Walk

TO: Jennifer Armstrong

COPIES: Glenn Palen

FROM: Laura Haught

DATE: February 22, 2005

On March 5, 2004 , I visited the Washington Aqueduct property, the Georgetown Reservoir, and the area adjacent to Sibley Memorial Hospital that is currently used to store residuals from the forebay. The purpose of the visit was to determine if any biological resources would be affected by the proposed action and alternatives associated with the Draft Environmental Impact Statement (DEIS) for the proposed residuals treatment management plan at the Dalecarlia Water Treatment Facility.

Other CH2M HILL personnel on site included Glenn Palen, Al Wollman, and Jed Campbell.

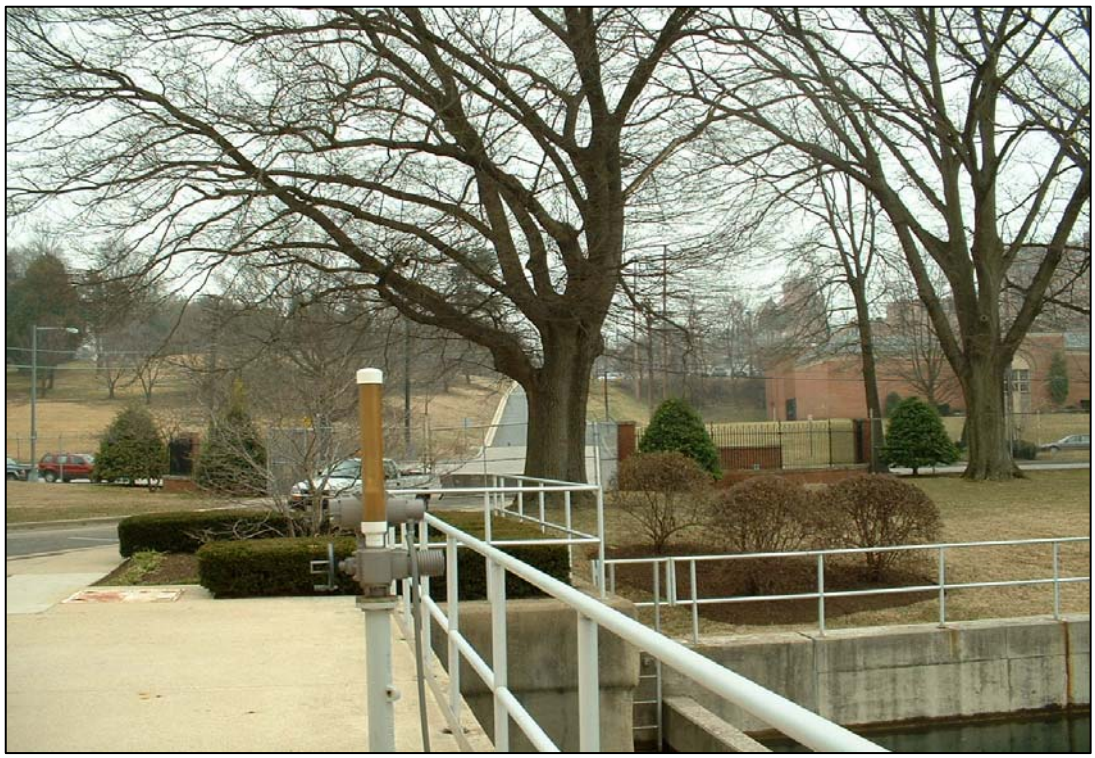
Weather the day of the site walk was cool and overcast.

Digital photographs were taken of all the areas visited and have been labeled and provided as part of this Memorandum.

Most of the areas visited have been previously disturbed. Two bald eagles were observed flying over the Georgetown Reservoir during the site visit. Details of the site visit and the resources observed are provided in the existing conditions section of the DEIS.

Eastern Portion of the Northwest Dalecarlia Processing Site

Southern Portion of the Northwest Dalecarlia Processing Site



View toward Sibley Memorial Hospital from Sedimentation Basins

View of Bike Trail West of Sedimentation Basins

National Park Service Land West

Western Portion of Northwest Dalecarlia Processing Site

Northern Portion of Northwest Dalecarlia Processing Site

Northern Portion of Dalecarlia Processing Site

Houses in Background at Northwest Dalecarlia Processing Site

Northwest Dalecarlia Processing Site – NGA Building

Northwest Dalecarlia Processing Site

Maintenance Building Adjacent to the Northwest Dalecarlia Processing Site

Recycled Oil Storage at Northwest Dalecarlia Processing Site

View toward Maintenance Building from Northwest Dalecarlia Processing Site

Area North of Northwest Dalecarlia Processing Site

Northwest Dalecarlia Processing Site Near Maintenance Building

Forebay Spoils Area

Sibley Memorial Hospital

Forebay North

Forebay East

Forebay Southeast

Forebay Entrance

Forebay Northwest

Pipe Leading from Forebay to Forebay Spoils Area

Forebay Spoils Area

Sibley Memorial Hospital

Forebay

Forebay

Forebay Spoils Area Northeast

Forebay Spoils Area Northeast

View of Woods West of Forebay

Bald Eagle over Georgetown Reservoir

Georgetown Reservoir North

Georgetown Reservoir

Georgetown Reservoir West

Georgetown Reservoir Northeast

Georgetown Reservoir East

Georgetown Reservoir view West toward Potomac River

January 14 and 17, 2005 - Site Walk

TO: Jennifer Armstrong

COPIES: Glenn Palen

FROM: Laura Haught

DATE: February 22, 2005

CH2M HILL biologists Laura Haught and Lindsey Carr conducted a site visit to the area owned by Washington Aqueduct that is adjacent to Sibley Memorial Hospital. In addition the proposed pipeline route was walked. The purpose of the visit was to determine if any biological resources would be affected by the proposed action and alternatives associated with the Draft Environmental Impact Statement (DEIS) for the proposed residuals treatment management plan at the Dalecarlia Water Treatment Facility.

Jennifer Armstrong/CH2M HILL and Mike Peterson of the Washington Aqueduct accompanied the CH2M HILL biologists during the site walk in the Spring Valley area adjacent to Sibley Hospital.

Weather the day of the site walk was very cold with intermittent sleet and snow.

Digital photographs were taken of all the areas visited and have been labeled and provided as part of this Memorandum.

Portions of the pipeline route appear to be located in the floodplain of the Potomac River parallel to Canal Road in Washington, D.C. These areas may be forested wetlands. This area will need to be carefully evaluated if this alternative is selected. The area for the proposed construction of the dewatering and thickening facilities adjacent to Sibley Hospital is mostly disturbed and used for storage and trailers. Portions of this area are used for the storage of residuals from the forebay. Details are described in the Existing Conditions section of the DEIS.

West Potomac Park along Potomac River – Sports Playing Field - Grass - Scattered Mature Trees

West Potomac Park near Franklin D. Roosevelt Memorial Site – Sports Playing Field – Grass – Scattered Mature Trees

East Potomac Golf Course adjacent to National Capital Regional Park

View of Road South of Chain Bridge Road Bridge

Tree Cover along Pipeline Route

Heavy Underbrush and Mature Trees observed along Pipeline Route

Paved C&O Canal Path – mature Trees Observed on both sides of Path along Pipeline route

Heavy Underbrush and mature Trees viewed along Pipeline route

View along Pipeline Route near intersection of Arizona Avenue and Potomac Avenue

View along Pipeline Route of Walking Trail

View Below Georgetown Reservoir on C&O Canal Path

View along Pipeline Route of Brick Wall, Canal, Bike Path

View along Pipeline Route of C&O Gravel Walking Path

View along Pipeline Route Facing Potomac River

View along Pipeline Route South of the Georgetown Reservoir on C&O Canal Path

View along Pipeline Route Near Washington Harbor Parking Lot

View along Pipeline Route of Park Near Washington Harbor

View along Pipeline Route of E Street Expressway/Urban Area

View of Urban Area along Pipeline Route

View of Gravel Park Area near East Dalecarlia Processing Site

Underbrush and Mature Trees to the East of East Dalecarlia Processing Site

Small Drainage Area with Mature Trees Lining East Dalecarlia Processing Site Entryway

View of AUES FUDS Staging Area to the East of East Dalecarlia Processing Site

Open Grassy Field Located in Northeast Portion of East Dalecarlia Processing Site

Front View of Warehouse 6

View of Concrete Pad and Metal Plates and Piping near East Dalecarlia Processing Site

View along Pipeline Route Below Palisades Park and C&O Canal Path

Small Tributary to South of East Dalecarlia Processing Site

Side View of Small Pond in open Field Northwest of East Dalecarlia Processing Site

View toward Sibley Memorial Hospital from East Dalecarlia Processing Site

Open Field View of Sibley Memorial Hospital from East Dalecarlia Processing Site

Mature Trees in Area to the North of East Dalecarlia Processing Site

View of AUES FUDS Staging Area from East Dalecarlia Processing Site

View of Concrete Pad Site North of East Dalecarlia Processing Site

View of Vegetation in Pipeline Route Zone B

View of Vegetation in Pipeline Route Zone C

View of Vegetation in Pipeline Route Zone D

The EDR Radius Map
with GeoCheck®

Georgetown Reservoir
Georgetown Reservoir
Washington, DC 20007

Inquiry Number: 01122495.3r

February 02, 2004

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-WIS

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GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

GEORGETOWN RESERVOIR
WASHINGTON, DC 20007

COORDINATES

Latitude (North):	38.912100 - 38° 54' 43.6"
Longitude (West):	77.093100 - 77° 5' 35.2"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	318517.5
UTM Y (Meters):	4308897.0
Elevation:	144 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	38077-H1 WASHINGTON WEST, DC MD VA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned
CORRACTS ..... Corrective Action Report
RCRIS-TSD ..... Resource Conservation and Recovery Information System

STATE ASTM STANDARD

SHWS ..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

EXECUTIVE SUMMARY

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
HMIRS..... Hazardous Materials Information Reporting System
MLTS..... Material Licensing Tracking System
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
US BROWNFIELDS..... A Listing of Brownfields Sites
DOD..... Department of Defense Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems

STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... List of Aboveground Storage Tanks

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites

EDR PROPRIETARY HISTORICAL DATABASES

See the EDR Proprietary Historical Database Section for details

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate

less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-LQG list, as provided by EDR, and dated 12/10/2003 has revealed that there is 1 RCRIS-LQG site within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GWU MOUNT VERNON COLLEGE	*2100 FOXHALL ROAD NW*	*1/4 - 1/2 NNE*	*H31*	*14*

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 12/10/2003 has revealed that there are 3 RCRIS-SQG sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
W&J ASSOCIATE EXXON	*4812 MACARTHURE BOULEVA*	*1/8 - 1/4 NNW*	*A1*	*6*
BOULEVARD CITGO	*4885 MACARTHUR BOULEVAR*	*1/4 - 1/2 NNW*	*F26*	*12*
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
FOXHALL CLEANERS	*4590 MACARTHUR BLVD. N.*	*1/4 - 1/2 ESE*	*B14*	*9*

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 2 ERNS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
4560 INDIAN ROCK TERRACE NW	4560 INDIAN ROCK TERRAC	1/4 - 1/2 ESE	13	9
4865 MACARTHUR BLVD	4865 MACARTHUR BLVD	1/4 - 1/2 NNW	C15	10

STATE ASTM STANDARD

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Consumer and Regulatory Affairs' District of Columbia LUST Cases list.

A review of the LUST list, as provided by EDR, and dated 10/03/2003 has revealed that there are 15 LUST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EXXON #21717	4812 MACARTHUR BLVD., N	1/8 - 1/4 NNW	A2	6
EXXON	4812 MACARTHUR BLVD, NW	1/8 - 1/4 NNW	A3	7
FORMER CHEVRON USA INC	4885 MACARTHUR BLVD, NW	1/4 - 1/2 NNW	F27	13
MOUNT VERNOS COLLEGE	2100 FOXHALL ROAD, NW	1/4 - 1/2 NNE	H29	13
DC PUBLIC LIBRARY	4901 V STREET, NW	1/4 - 1/2 NNW	I32	14
FRENCH EMBASSY	4101/3915 RESERVOIR RD,	1/2 - 1 E	43	16
PLYLMAR PLAZA CONDO	4100 W STREET, NW	1/2 - 1 NE	K44	17
BERNSTEIN MANAGEMENT	4101 W STREET, NW	1/2 - 1 NE	K45	17
POLINGER & SHANNON & LUCHS	2315 40TH PLACE, NW	1/2 - 1 NE	47	17
PARK CREST APPARTMENTS	2324 41ST STREET, NW	1/2 - 1 NE	48	18
AMOCO	5101 MACARTHUR BLVD. NW	1/2 - 1 NNW	L49	18
APT BUILDING	5112 MACARTHUR BOULEVAR	1/2 - 1 NNW	L50	18

Lower Elevation	Address	Dist / Dir	Map ID	Page
RIVERSIDE APARTMENTS	4550 MACARTHUR BLUVARD,	1/4 - 1/2 ESE	E24	12
HANNAH HARRISON SCHOOL	4470 MACARTHUR BLVD., N	1/2 - 1 ESE	J38	15
PSYCHIATRIC INSTITUTE	4460 MACARTHUR BLVD., N	1/2 - 1 ESE	J40	16

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Consumer & Regulatory Affairs' D.C. UST Database List.

A review of the UST list, as provided by EDR, and dated 10/03/2003 has revealed that there are 19 UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EXXON S/S #2-1717	4812 MACARTHUR BV NW	1/8 - 1/4 NNW	A4	7
DCFD ENGINE CO. #29	4811 MACARTHUR BV NW	1/8 - 1/4 NNW	A5	7
TOWNHOUSE	4836 MACARTHUR BV NW	1/4 - 1/2 NNW	A8	8
MACARTHUR BOULEVARD APARTMENTS	4858 MACARTHUR BV NW	1/4 - 1/2 NNW	A9	8
OUR LADY OF VICTORY CHURCH	4835 MACARTHUR BOULEVAR	1/4 - 1/2 NNW	A11	8
BOULEVARD CITGO	***4885 MACARTHUR BOULEVAR***	***1/4 - 1/2 NNW***	***F26***	***12***
MT. VERNON COLLEGE	2100 FOXHALL RD NW	1/4 - 1/2 NNE	H30	13
PALISADES PUBLIC LIBRARY	4901 V ST NW	1/4 - 1/2 NNW	I33	14
CAFRITZ MANSION	2301 FOXHALL RD NW	1/2 - 1 NNE	41	16

Lower Elevation	Address	Dist / Dir	Map ID	Page
NATIONAL STONE ASSOCIATION	1415 ELLIOT PL NW	1/4 - 1/2 SE	6	7
CENTER FOR URBAN ECOLOGY	4598 MACARTHUR BV NW	1/4 - 1/2 ESE	B7	8
SUN LOY CHAN	4577 MACARTHUR BV NW	1/4 - 1/2 ESE	E20	11
4840 MACARTHUR BV NW	4840 MACARTHUR BV NW	1/4 - 1/2 NNW	F22	11
UNKNOWN	4550 MACARTHUR BV NW	1/4 - 1/2 ESE	E23	11
SEITH D. SHULMAN	5000 V ST NW	1/4 - 1/2 NW	25	12
THE PALISADES	4540 MACARTHUR BV NW	1/4 - 1/2 ESE	G28	13
4520 MACARTHUR BLVD	4520 MACARTHUR BV NW	1/2 - 1 ESE	37	15
HARRISON CTR FOR CAREER EDUCAT	4470 MACARTHUR BV NW	1/2 - 1 ESE	J39	16

Lower Elevation	Address	Dist / Dir	Map ID	Page
RIVERSIDE HOSPITAL	4460 MACARTHUR BLVD NW	1/2 - 1 ESE	J42	16

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/23/2003 has revealed that there are 10 FINDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
W&J ASSOCIATE EXXON	***4812 MACARTHURE BOULEVA***	***1/8 - 1/4 NNW***	***A1***	***6***
THE LAB SCHOOL OF WASHINGTON	4759 RESEVOIR ROAD NORT	1/4 - 1/2 NNW	A10	8
PARKS FABRICARE CENTER	4826 MACARTHUR BLVD. N.	1/4 - 1/2 NNW	12	9
ST. PATRICK S EPISCOPAL DAY SC	4700 WHITEHAVEN PARKWAY	1/4 - 1/2 NE	D18	10
ST JOHNS CHILD DEVELOP CNTR	4880 MACARTHUR BLVD NW	1/4 - 1/2 NNW	C21	11
BOULEVARD CITGO	***4885 MACARTHUR BOULEVAR***	***1/4 - 1/2 NNW***	***F26***	***12***
GWU MOUNT VERNON COLLEGE	***2100 FOXHALL ROAD NW***	***1/4 - 1/2 NNE***	***H31***	***14***
GEORGETOWN VALET	1613 FOXHALL ROAD	1/4 - 1/2 E	36	15

Lower Elevation	Address	Dist / Dir	Map ID	Page
FOXHALL CLEANERS	***4590 MACARTHUR BLVD. N.***	***1/4 - 1/2 ESE***	***B14***	***9***
GEORGETOWN DAY SCHOOL	4530 MACARTHUR BOULEVAR	1/4 - 1/2 ESE	G35	15

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS INSP list, as provided by EDR, and dated 10/16/2003 has revealed that there are 4 FTTS INSP sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ST. PATRICKS EPISCOPAL DAY SCH	4706 WHITEHAVEN PARKWAY	1/4 - 1/2 NE	D16	10
ST PATRICKS EPISCOPAL DAY SCHO	4700 WHITEHAVEN PARKWAY	1/4 - 1/2 NE	D17	10
ST. PATRICK'S EPISCOPAL DAY SC	4700 WHITEHAVEN PARKWAY	1/4 - 1/2 NE	D19	11

Lower Elevation	Address	Dist / Dir	Map ID	Page
GEORGETOWN DAY SCHOOL	4530 MACARTHUR BLVD NW	1/4 - 1/2 ESE	G34	14

EXECUTIVE SUMMARY

EDR PROPRIETARY HISTORICAL DATABASES

See the EDR Proprietary Historical Database Section for details

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
ARLINGTON COUNTY SCHOOL DISTRICT	FINDS, FTTS INSP
DINWIDDIE STREET MERCURY ASSESSMENT	CERCLIS, FINDS
EPIS. CHURCH HOME-SEVIER HOUSE	LUST
WASHINGTON NAVY YARD	LUST
MARFAIR JOINT VENTURE	LUST
CHEVRON	LUST
WMATA	LUST
WHOLESALE BAKERY	LUST
MATHEW MEMORIAL BAPTIST CHURCH	LUST
FIRE ENGINE COMPANY 25	LUST
AMOCO	LUST
SUNOCO - FORMER	LUST
LECKIE ELEMENTARY SCHOOL	LUST
BROWN JUNIOR HIGH SCHOOL	LUST
GEORGETOWN UNIVERSITY RYAN BUILDING	LUST
UPTOWN PARTNERS, LLC C/O METROPOLIS	LUST
ARLINGTON COUNTY HHW	RCRIS-SQG, FINDS
EXXON CO USA 25361	RCRIS-SQG
CHEVRON USA PRODUCTS C0#122172	RCRIS-SQG, FINDS
SYSTEMS PUBLICATIONS INCORPORATED	RCRIS-SQG, FINDS
WASHINGTON STUDIO SCHOOL	RCRIS-SQG, FINDS

OVERVIEW MAP - 01122495.3r - CH2M Hill, Inc.

- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Georgetown Reservoir	CUSTOMER:	CH2M Hill, Inc.
ADDRESS:	Georgetown Reservoir	CONTACT:	Jennifer Wilson
CITY/STATE/ZIP:	Washington DC 20007	INQUIRY #:	01122495.3r
LAT/LONG:	38.9121 / 77.0931	DATE:	February 02, 2004 7:20 pm

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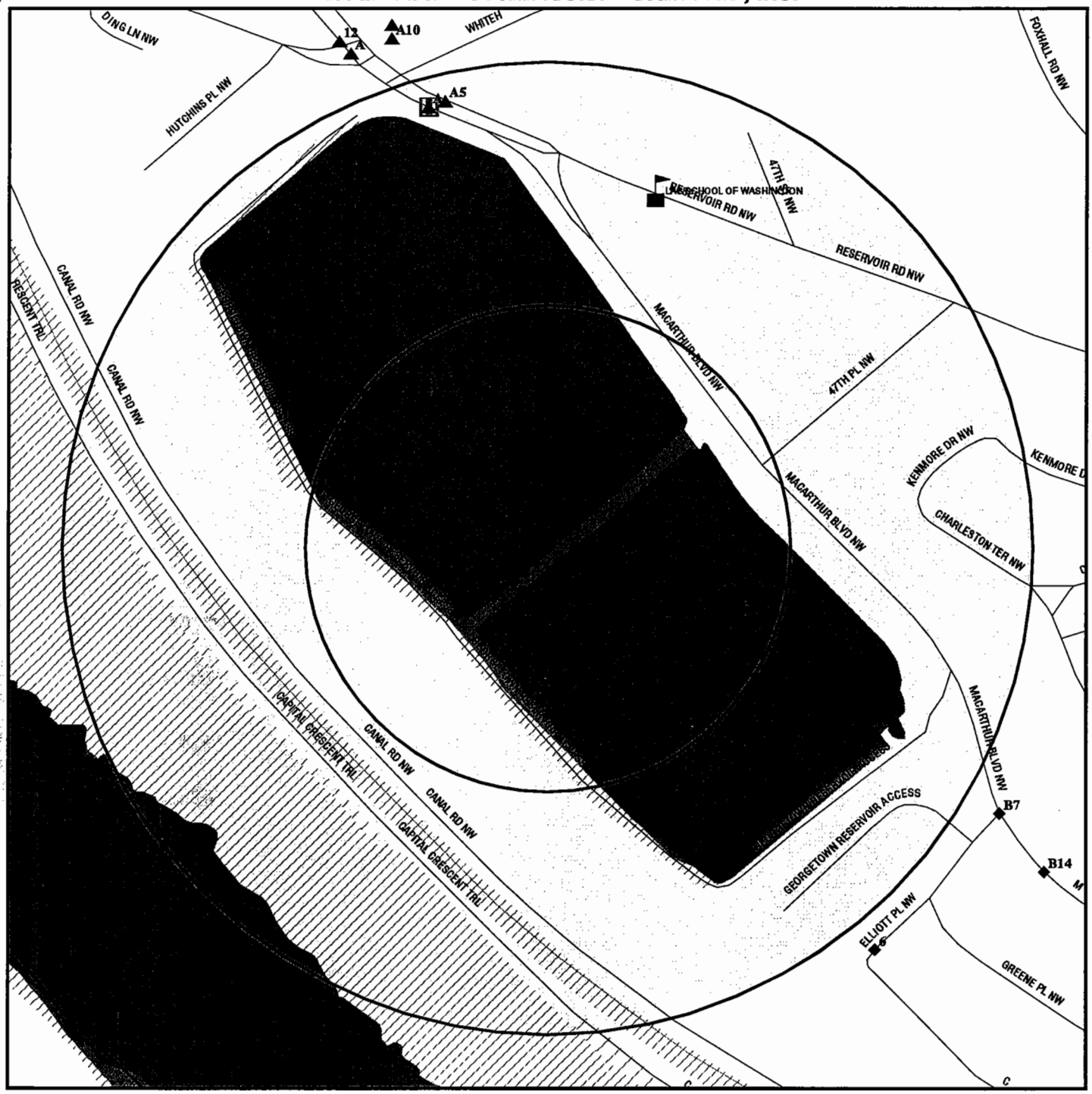
DETAIL MAP - 01122495.3r - CH2M Hill, Inc.



0 1/16 1/8 1/4 Miles

- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Coal Gasification Sites
- [H] Historical Gas Stations / Historical Dry Cleaners See the EDR Proprietary Historical Map Findings
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Georgetown Reservoir	CUSTOMER:	CH2M Hill, Inc.
ADDRESS:	Georgetown Reservoir	CONTACT:	Jennifer Wilson
CITY/STATE/ZIP:	Washington DC 20007	INQUIRY #:	01122495.3r
LAT/LONG:	38.9121 / 77.0931	DATE:	February 02, 2004 7:22 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	1	0	NR	1
RCRIS Sm. Quan. Gen.		0.750	0	1	2	0	NR	3
ERNS		0.500	0	0	2	NR	NR	2
STATE ASTM STANDARD								
State Haz. Waste		N/A	N/A	N/A	N/A	N/A	N/A	N/A
LUST		1.000	0	2	4	10	NR	16
UST		0.750	0	2	13	4	NR	19
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.500	0	0	0	0	0	0
ROD		1.500	0	0	0	0	0	0
Delisted NPL		1.500	0	0	0	0	0	0
FINDS		0.500	0	1	9	NR	NR	10
HMIRS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
MINES		0.750	0	0	0	0	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
DOD		1.500	0	0	0	0	0	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
FTTS		0.500	0	0	4	NR	NR	4
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY HISTORICAL DATABASES								
Gas Stations/Dry Cleaners		0.250	0	5	NR	NR	NR	5
Coal Gas		1.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

See the EDR Proprietary Historical Database Section for details

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Distance (ft.)
Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

A1
NNW
1/8-1/4
1241 ft.

W&J ASSOCIATE EXXON — **RCRIS-SQG** **1000495670**
4812 MACARTHURE BOULEVARD NORTHWEST — **FINDS** **DCD983969007**
WASHINGTON, DC 20007

Site 1 of 9 in cluster A

Relative:
Higher

Actual:
154 ft.

RCRIS:
Owner: PROPERTY OWNER EXXON CORP
(281) 296-3579
EPA ID: DCD983969007

Contact: WILLIAM COOK
(202) 337-3144

Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported

BIENNIAL REPORTS:
Last Biennial Reporting Year: 2001

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	2224.08	D018	2224.08

Violation Status: Violations exist

Regulation Violated: 262.41
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 04/04/1994
Actual Date Achieved Compliance: 04/18/1994

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 04/04/1994
Penalty Type: Not reported

There are 1 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Non-Financial Record Review	GENERATOR-RECORDKEEPING REQUIREMENTS	19940418

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subsystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

A2
NNW
1/8-1/4
1241 ft.

EXXON #21717 — **LUST** **S103817094**
4812 MACARTHUR BLVD., NW — **N/A**
WASHINGTON DC, DC

Site 2 of 9 in cluster A

Relative:
Higher

Actual:
154 ft.

LUST:
Case Number: 96104
Facility Status: CLOSED
Facility Type : Gas Station
Quadrant : NW

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A3	**EXXON**	**LUST**	**S100521393**
NNW	**4812 MACARTHUR BLVD, NW**		**N/A**
1/8-1/4	**WASHINGTON DC, DC**		
1241 ft.			
	Site 3 of 9 in cluster A		
Relative:			
Higher	LUST:		
	Case Number: 88014		
Actual:	Facility Status: CLOSED		
154 ft.	Facility Type : Gas Station		
	Quadrant : NW		
	Case Number: 93059		
	Facility Status: CLOSED		
	Facility Type : Gas Station		
	Quadrant : NW		
A4	**EXXON S/S #2-1717**	**UST**	**U003294459**
NNW	**4812 MACARTHUR BV NW**		**N/A**
1/8-1/4	**WASHINGTON DC, DC 80228**		
1241 ft.			
	Site 4 of 9 in cluster A		
Relative:			
Higher	UST:		
	Facility ID: 3000337		
Actual:	Owner: EXXON MOBIL CORPORATION		
154 ft.			
A5	**DCFD ENGINE CO. #29**	**UST**	**U003054834**
NNW	**4811 MACARTHUR BV NW**		**N/A**
1/8-1/4	**WASHINGTON DC, DC 20001**		
1245 ft.			
	Site 5 of 9 in cluster A		
Relative:			
Higher	UST:		
	Facility ID: 3000300		
Actual:	Owner: DC FIRE DEPARTMENT		
155 ft.			
6	**NATIONAL STONE ASSOCIATION**	**UST**	**U003764117**
SE	**1415 ELLIOT PL NW**		**N/A**
1/4-1/2	**WASHINGTON DC, DC 20007**		
1405 ft.			
Relative:	UST:		
Lower	Facility ID: 9000325		
	Owner: NATIONAL STONE ASSOCIATION		
Actual:			
124 ft.			

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
B7	**CENTER FOR URBAN ECOLOGY**	**UST**	**U002110308**
ESE	**4598 MACARTHUR BV NW**		**N/A**
1/4-1/2	**WASHINGTON DC, DC 20008**		
1424 ft.			
	Site 1 of 2 in cluster B		
Relative:			
Lower	UST:		
	Facility ID: 3005513		
Actual:	Owner: DOI-NPS - ROCK CREEK PARK		
139 ft.			
A8	**TOWNHOUSE**	**UST**	**U003294486**
NNW	**4836 MACARTHUR BV NW**		**N/A**
1/4-1/2	**WASHINGTON DC, DC 20816**		
1435 ft.			
	Site 6 of 9 in cluster A		
Relative:			
Higher	UST:		
	Facility ID: 3004182		
Actual:	Owner: JOHN E KERN REVOCABLE TRUST		
155 ft.			
A9	**MACARTHUR BOULEVARD APARTMENTS**	**UST**	**U003763810**
NNW	**4858 MACARTHUR BV NW**		**N/A**
1/4-1/2	**WASHINGTON DC, DC 20814**		
1446 ft.			
	Site 7 of 9 in cluster A		
Relative:			
Higher	UST:		
	Facility ID: 3004180		
Actual:	Owner: ALVIN L. AUBINOE, INC.		
155 ft.			
A10	**THE LAB SCHOOL OF WASHINGTON**	**FINDS**	**1006286932**
NNW	**4759 RESEVOIR ROAD NORTH WEST**		**110011774730**
1/4-1/2	**WASHINGTON, DC 20007**		
1448 ft.			
	Site 8 of 9 in cluster A		
Relative:			
Higher	FINDS:		
	Other Pertinent Environmental Activity Identified at Site:		
Actual:	Integrated Compliance Information System (ICIS)		
162 ft.	National Compliance Database (NCDB)		
A11	**OUR LADY OF VICTORY CHURCH**	**UST**	**U002109682**
NNW	**4835 MACARTHUR BOULEVARD NW**		**N/A**
1/4-1/2	**WASHINGTON DC, DC 20007**		
1483 ft.			
	Site 9 of 9 in cluster A		
Relative:			
Higher	UST:		
	Facility ID: 3000015		
Actual:	Owner: OUR LADY OF VICTORY CHURCH		
165 ft.			

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
12 **NNW** **1/4-1/2** **1489 ft.** **Relative: Higher** **Actual: 155 ft.**	**PARKS FABRICARE CENTER** **4826 MACARTHUR BLVD. N.W.** **WASHINGTON, DC 20007**	**FINDS**	**1005525537** **110002010779**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)

---

13 **ESE** **1/4-1/2** **1525 ft.** **Relative: Higher** **Actual: 192 ft.**	**4560 INDIAN ROCK TERRACE NW** **4560 INDIAN ROCK TERRACE NW** **WASHINGTON, DC**	**ERNS**	**98443631** **N/A**

The ERNS database may contain additional details for this site.
Please click here or contact your EDR Account Executive for more information.

B14 **ESE** **1/4-1/2** **1612 ft.** **Relative: Lower** **Actual: 134 ft.**	**FOXHALL CLEANERS** **4590 MACARTHUR BLVD. N.W.** **WASHINGTON, DC 20007**	**RCRIS-SQG** **FINDS**	**1000239137** **DCD116201476**

Site 2 of 2 in cluster B

RCRIS:
Owner: BUZZANCA, ANTHONY
(215) 555-1212
EPA ID: DCD116201476
Contact: ANTHONY BUZZANCA
(202) 333-5556
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
C15 NNW 1/4-1/2 1776 ft. Relative: Higher Actual: 157 ft.	**4865 MACARTHUR BLVD** **4865 MACARTHUR BLVD** **WASHINGTON DC (County), DC** **Site 1 of 2 in cluster C** The ERNS database may contain additional details for this site. Please click here or contact your EDR Account Executive for more information.	ERNS	8863542 N/A
D16 NE 1/4-1/2 1932 ft. Relative: Higher Actual: 240 ft.	**ST. PATRICKS EPISCOPAL DAY SCHOOL** **4706 WHITEHAVEN PARKWAY NW** **WASHINGTON, DC 20007** **Site 1 of 4 in cluster D** FTTS Insp: Region: 03 Inspected Date: 3/18/1999 0:00:00 Insp Number: 19990318R3005 3 Violation occurred: No Inspector: BOYER Investigation Type: AHERA, Enforcement, SEE Conducted Facility Function: User Investig Reason: Not reported Legislation Code: TSCA	FTTS INSP	1006967826 N/A
D17 NE 1/4-1/2 2000 ft. Relative: Higher Actual: 242 ft.	**ST PATRICKS EPISCOPAL DAY SCHOOL** **4700 WHITEHAVEN PARKWAY, NW** **WASHINGTON, DC 20007** **Site 2 of 4 in cluster D** FTTS Insp: Region: 03 Inspected Date: 3/29/1999 0:00:00 Insp Number: 19990329R3005 2 Violation occurred: No Inspector: BOYER Investigation Type: AHERA, Enforcement, SEE Conducted Facility Function: User Investig Reason: Not reported Legislation Code: TSCA	FTTS INSP	1006967645 N/A
D18 NE 1/4-1/2 2000 ft. Relative: Higher Actual: 242 ft.	**ST. PATRICK S EPISCOPAL DAY SCHOOL** **4700 WHITEHAVEN PARKWAY NORTH WEST** **WASHINGTON, DC 20007** **Site 3 of 4 in cluster D** FINDS: Other Pertinent Environmental Activity Identified at Site: National Compliance Database (NCDB)	FINDS	1004456137 110011530003

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
D19 NE 1/4-1/2 2000 ft. Relative: Higher Actual: 242 ft.	**ST. PATRICK'S EPISCOPAL DAY SCHOOL** **4700 WHITEHAVEN PARKWAY, NW** **WASHINGTON, DC 20007** **Site 4 of 4 in cluster D** FTTS Insp: Region: 03 Inspected Date: 6/7/1993 0:00:00 Insp Number: 19930607R3005 1 Violation occurred: No Inspector: BOYER Investigation Type: AHERA, Enforcement, SEE Conducted Facility Function: User Investig Reason: Not reported Legislation Code: TSCA	FTTS INSP	1006967825 N/A
E20 ESE 1/4-1/2 2007 ft. Relative: Lower Actual: 125 ft.	**SUN LOY CHAN** **4577 MACARTHUR BV NW** **WASHINGTON DC, DC 20007** **Site 1 of 3 in cluster E** UST: Facility ID: 3004196 Owner: SUN LOY CHAN	UST	U003055019 N/A
C21 NNW 1/4-1/2 2011 ft. Relative: Higher Actual: 148 ft.	**ST JOHNS CHILD DEVELOP CNTR** **4880 MACARTHUR BLVD NW** **WASHINGTON, DC 20007** **Site 2 of 2 in cluster C** FINDS: Other Pertinent Environmental Activity Identified at Site: Integrated Compliance Information System (ICIS) National Compliance Database (NCDB)	FINDS	1004456350 110010788852
F22 NNW 1/4-1/2 2086 ft. Relative: Lower Actual: 139 ft.	**4840 MACARTHUR BV NW** **4840 MACARTHUR BV NW** **WASHINGTON DC, DC 20016** **Site 1 of 3 in cluster F** UST: Facility ID: 9000311 Owner: TRUST UNDER WILL OF JOHN C PYLES	UST	U003764104 N/A
E23 ESE 1/4-1/2 2271 ft. Relative: Lower Actual: 118 ft.	**UNKNOWN** **4550 MACARTHUR BV NW** **WASHINGTON DC, DC 20816** **Site 2 of 3 in cluster E** UST: Facility ID: 3004200 Owner: LELAND PHILLIPS ETAL	UST	U003055023 N/A

UNKNOWN (Continued) **U003055023**

E24 **RIVERSIDE APARTMENTS** **LUST** **S100008069**
ESE **4550 MACARTHUR BLUVARD, NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC**
2271 ft.

Site 3 of 3 in cluster E

Relative:
Lower

LUST:
Case Number: 90057
Actual: Facility Status: CLOSED
118 ft. Facility Type : Other
Quadrant : NW

---

25 **SEITH D. SHULMAN** **UST** **U002109996**
NW **5000 V ST NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC 20007**
2293 ft.

Relative:
Lower

UST:
Facility ID: 3003830
Actual: Owner: SEITH D. SHULMAN
121 ft.

F26 **BOULEVARD CITGO** **RCRIS-SQG** **1000495579**
NNW **4885 MACARTHUR BOULEVARD NORTHWEST** **FINDS** **DCD983967878**
1/4-1/2 **WASHINGTON, DC 20007** **UST**
2294 ft.

Site 2 of 3 in cluster F

Relative:
Higher

RCRIS:
Owner: MACARTHUR LAND CO INC
(202) 338-3039
Actual: EPA ID: DCD983967878
153 ft.

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated: 262.41
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 04/04/1994
Actual Date Achieved Compliance: 04/18/1994

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 04/04/1994
Penalty Type: Not reported

There are 1 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Non-Financial Record Review	GENERATOR-RECORDKEEPING REQUIREMENTS	19940418

BOULEVARD CITGO (Continued) **1000495579**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

UST:
Facility ID: 3000204
Owner: WOODROW M ROYCE T/A BLVD CITGO

F27 **FORMER CHEVRON USA INC** **LUST** **S104918735**
NNW **4885 MACARTHUR BLVD, NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC**
2294 ft.

Site 3 of 3 in cluster F

Relative:
Higher

LUST:
Case Number: 99075
Facility Status: OPEN
Facility Type : Gas Station
Quadrant : NW

Actual:
153 ft.

G28 **THE PALISADES** **UST** **U003764187**
ESE **4540 MACARTHUR BV NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC 92692**
2394 ft.

Site 1 of 3 in cluster G

Relative:
Lower

UST:
Facility ID: 9000400
Owner: JAMES CARONE TRUST

Actual:
118 ft.

H29 **MOUNT VERNOS COLLEGE** **LUST** **S103816940**
NNE **2100 FOXHALL ROAD, NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC**
2412 ft.

Site 1 of 3 in cluster H

Relative:
Higher

LUST:
Case Number: 99066
Facility Status: CLOSED
Facility Type : University
Quadrant : NW

Actual:
271 ft.

H30 **MT. VERNON COLLEGE** **UST** **U002109811**
NNE **2100 FOXHALL RD NW** **N/A**
1/4-1/2 **WASHINGTON DC, DC 20052**
2412 ft.

Site 2 of 3 in cluster H

Relative:
Higher

UST:
Facility ID: 3001530
Owner: THE GEORGE WASHINGTON UNIVERSITY

Actual:
271 ft.

H31
NNE
1/4-1/2
2412 ft.

GWU MOUNT VERNON COLLEGE
2100 FOXHALL ROAD NW
WASHINGTON, DC 20007

RCRIS-LQG
FINDS

1004681863
DCR000002204

Site 3 of 3 in cluster H

Relative:
Higher

Actual:
271 ft.

RCRIS:
Owner: GEORGE WASHINGOTN UNIVERSITY
(202) 994-3265
EPA ID: DCR000002204
Contact: Not reported
Classification: Large Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

I32
NNW
1/4-1/2
2428 ft.

DC PUBLIC LIBRARY
4901 V STREET, NW
WASHINGTON DC, DC

LUST

S105738236
N/A

Site 1 of 2 in cluster I

Relative:
Higher

Actual:
164 ft.

LUST:
Case Number: 2002085
Facility Status: CLOSED
Facility Type : DC Govt - other
Quadrant : NW

I33
NNW
1/4-1/2
2428 ft.

PALISADES PUBLIC LIBRARY
4901 V ST NW
WASHINGTON DC, DC 20001

UST

U003885958
N/A

Site 2 of 2 in cluster I

Relative:
Higher

Actual:
164 ft.

UST:
Facility ID: 9000575
Owner: D.C. PUBLIC LIBRARY

G34
ESE
1/4-1/2
2556 ft.

GEORGETOWN DAY SCHOOL
4530 MACARTHUR BLVD NW
WASH, DC 20007

FTTS INSP

1006947855
N/A

Site 2 of 3 in cluster G

Relative:
Lower

Actual:
116 ft.

FTTS Insp:
Region: 03
Inspected Date: 1/12/1999 0:00:00
Insp Number: 19990112R3005 1
Violation occurred: No
Inspector: BOYER
Investigation Type: AHERA, Enforcement, SEE Conducted
Facility Function: User
Investig Reason: Not reported
Legislation Code: TSCA

GEORGETOWN DAY SCHOOL (Continued) — **1006947855**

G35 | **ESE** | **1/4-1/2** | **2556 ft.** | **Relative: Lower** | **Actual: 116 ft.**

GEORGETOWN DAY SCHOOL — **FINDS** — **1005624807**
4530 MACARTHUR BOULEVARD NW — **110011893282**
WASHINGTON, DC 20007

Site 3 of 3 in cluster G

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Compliance Database (NCDB)

---

36 | **East** | **1/4-1/2** | **2582 ft.** | **Relative: Higher** | **Actual: 160 ft.**

GEORGETOWN VALET — **FINDS** — **1005525542**
1613 FOXHALL ROAD — **110002007578**
WASHINGTON, DC 20007

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)

---

37 | **ESE** | **1/2-1** | **2685 ft.** | **Relative: Lower** | **Actual: 115 ft.**

4520 MACARTHUR BLVD — **UST** — **U003055016**
4520 MACARTHUR BV NW — **N/A**
WASHINGTON DC, DC 20007

UST:
Facility ID: 3004191
Owner: DONALD HARLAND

J38 | **ESE** | **1/2-1** | **3217 ft.** | **Relative: Lower** | **Actual: 107 ft.**

HANNAH HARRISON SCHOOL — **LUST** — **S102834989**
4470 MACARTHUR BLVD., NW — **N/A**
WASHINGTON DC, DC

Site 1 of 4 in cluster J

LUST:
Case Number: 91056
Facility Status: CLOSED
Facility Type : University
Quadrant : NW

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
J39 ESE 1/2-1 3261 ft. Relative: Lower Actual: 107 ft.	**HARRISON CTR FOR CAREER EDUCATION** **4470 MACARTHUR BV NW** **WASHINGTON DC, DC 20000** **Site 2 of 4 in cluster J** UST: Facility ID: 3000502 Owner: HARRISON CTR FOR CAREER EDUCATION	UST	U002109728 N/A
J40 ESE 1/2-1 3283 ft. Relative: Lower Actual: 107 ft.	**PSYCHIATRIC INSTITUTE** **4460 MACARTHUR BLVD., NW** **WASHINGTON DC, DC 20007** **Site 3 of 4 in cluster J** LUST: Case Number: 96004 Facility Status: CLOSED Facility Type : Other Quadrant : NW	LUST	U002110028 N/A
41 NNE 1/2-1 3341 ft. Relative: Higher Actual: 332 ft.	**CAFRITZ MANSION** **2301 FOXHALL RD NW** **WASHINGTON DC, DC 20006** UST: Facility ID: 3001529 Owner: MORRIS & GWEN CAFRITZ FOUNDATION	UST	U003054879 N/A
J42 ESE 1/2-1 3362 ft. Relative: Lower Actual: 107 ft.	**RIVERSIDE HOSPITAL** **4460 MACARTHUR BLVD NW** **WASHINGTON DC, DC 20016** **Site 4 of 4 in cluster J** UST: Facility ID: 3004193 Owner: FIRST MANAGEMENT GROUP INC.	UST	U003763811 N/A
43 East 1/2-1 4562 ft. Relative: Higher Actual: 150 ft.	**FRENCH EMBASSY** **4101/3915 RESERVOIR RD, NW** **WASHINGTON DC, DC 20007** LUST: Case Number: 92091 Facility Status: CLOSED Facility Type : Commercial Quadrant : NW	LUST	U003055093 N/A

FRENCH EMBASSY (Continued) **U003055093**

K44 **PLYLMAR PLAZA CONDO** **LUST** **S103817061**
NE **4100 W STREET, NW** **N/A**
1/2-1 **WASHINGTON DC, DC**
4589 ft.

Site 1 of 2 in cluster K

Relative:
Higher

LUST:
Case Number: 99076
Facility Status: CLOSED
Facility Type : Residential
Quadrant : NW

Actual:
296 ft.

K45 **BERNSTEIN MANAGEMENT** **LUST** **S103817063**
NE **4101 W STREET, NW** **N/A**
1/2-1 **WASHINGTON DC, DC**
4589 ft.

Site 2 of 2 in cluster K

Relative:
Higher

LUST:
Case Number: 95085
Facility Status: CLOSED
Facility Type : Other
Quadrant : NW

Actual:
296 ft.

---

46 **WOODMONT CENTER** **LUST** **S104407342**
SSW **2422 NORTH FILLMORE STREET** **N/A**
1/2-1 **ARLINGTON, VA 22207**
4650 ft.

Relative:
Higher

LUST Region NO:
Facility ID: 3900246
Pollution Complaint #: 98-3762
Priority: Not reported
Release Date: 05/15/1998
Status: Closed
Closed Date: 8/13/98
Permit Number: Not reported
Tank Size: 8,000
Product: heating oil
Cas Type: Article 11
Case Officer: Lewis E. Hilder
Region: Northern

Actual:
231 ft.

---

47 **POLINGER & SHANNON & LUCHS** **LUST** **S105890760**
NE **2315 40TH PLACE, NW** **N/A**
1/2-1 **WASHINGTON DC, DC**
4775 ft.

Relative:
Higher

LUST:
Case Number: 99037
Facility Status: CLOSED
Facility Type : Commercial
Quadrant : NW

Actual:
303 ft.

POLINGER & SHANNON & LUCHS (Continued) **S105890760**

48
NE
1/2-1
4782 ft.

Relative:
Higher

Actual:
267 ft.

PARK CREST APPARTMENTS **LUST** **S103816967**
2324 41ST STREET, NW **N/A**
WASHINGTON DC, DC

LUST:
Case Number: 93099
Facility Status: CLOSED
Facility Type : Other
Quadrant : NW

L49
NNW
1/2-1
4786 ft.

Relative:
Higher

Actual:
159 ft.

AMOCO **LUST** **1001276810**
5101 MACARTHUR BLVD. NW **N/A**
WASHINGTON DC, DC 20016

Site 1 of 2 in cluster L

LUST:
Case Number: 91073
Facility Status: CLOSED
Facility Type : Gas Station
Quadrant : NW

L50
NNW
1/2-1
4848 ft.

Relative:
Higher

Actual:
153 ft.

APT BUILDING **LUST** **S104918752**
5112 MACARTHUR BOULEVARD, NW **N/A**
WASHINGTON DC, DC

Site 2 of 2 in cluster L

LUST:
Case Number: 99067
Facility Status: NFA
Facility Type : Residential
Quadrant : NW

The EDR Radius Map
with GeoCheck®

Dalecarlia Reservoir
Dalecarlia Reservoir
Washington, DC 20016

Inquiry Number: 01122495.5r

February 03, 2004

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-WIS

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

DALECARLIA RESERVOIR
WASHINGTON, DC 20016

COORDINATES

Latitude (North):	38.940500 - 38° 56' 25.8"
Longitude (West):	77.112300 - 77° 6' 44.3"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	316925.7
UTM Y (Meters):	4312087.5
Elevation:	153 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	38077-H1 WASHINGTON WEST, DC MD VA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
DALECARLIA WTP 5900 MACARTHUR BV NW WASHINGTON DC, DC 20016	UST	N/A
DALECARLIA WATER TREATMENT PLANT 5900 MACARTHUR BLVD., NW WASHINGTON DC, DC	LUST	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
US BROWNFIELDS..... A Listing of Brownfields Sites
DOD..... Department of Defense Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
FTTS INSP..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... List of Aboveground Storage Tanks

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

FEDERAL ASTM STANDARD

CERCLIS-NFRAP: As of February 1995. CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERC-NFRAP list, as provided by EDR, and dated 11/17/2003 has revealed that there is 1 CERC-NFRAP site within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SIBLEY MEMORIAL HOSPITAL	*5255 LOUGHBORO RD NW*	*1/4 - 1/2 SSE*	*B5*	*8*

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 12/10/2003 has revealed that there are 5 RCRIS-SQG sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NATIONAL IMAGERY AND MAPPING A	*6000 MACARTHUR BOULEVAR*	*1/8 - 1/4 NW*	*4*	*8*
SIBLEY MEMORIAL HOSPITAL	*5255 LOUGHBORO RD NW*	*1/4 - 1/2 SSE*	*B5*	*8*
EXXON RAS 26200	*6100 MACARTHUR BLVD*	*1/4 - 1/2 NW*	*C9*	*12*
NIMA	*4600 SANGAMORE ROAD # D*	*1/2 - 1 NNW*	*E17*	*15*
MOBIL OIL CORP SS# GD8	*2084 CHAI BRIDGE RD*	*1/2 - 1 SW*	*18*	*15*

STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Consumer and Regulatory Affairs' District of Columbia LUST Cases list.

A review of the LUST list, as provided by EDR, and dated 10/03/2003 has revealed that there are 5 LUST sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EXXON	5443 MACARTHUR BLVD, NW	1/2 - 1 SSE	21	16

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EXXONMOBIL CORP #25669	***4866 MASSACHUSETTS AVE***	***1/2 - 1 ENE***	***F22***	***17***
EXXON CO USA RAS#27834	***4861 MASSACHUSETTS AVE***	***1/2 - 1 ENE***	***F23***	***17***
CHEVRON	4861 MASSACHUSETTS AVEN	1/2 - 1 ENE	F24	18
RIGGS NATIONAL BANK OF WASH.	4835 MASSACHUSETTS AVE.	1/2 - 1 ENE	F25	18

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Consumer & Regulatory Affairs' D.C. UST Database List.

A review of the UST list, as provided by EDR, and dated 10/03/2003 has revealed that there are 5 UST sites within approximately 0.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SIBLEY MEMORIAL HOSPITAL	***5255 LOUGHBORO RD NW***	***1/4 - 1/2 SSE***	***B5***	***8***
JAMES M. MURPHY, JR.	4902 PALISADE LA NW	1/4 - 1/2 SE	12	13
ELIZABETH WILLIAMS	4070 52ND ST NW	1/2 - 1 ENE	14	14
LETIZIA AMADINI & ANTONIO CITT	4208 50TH ST NW	1/2 - 1 ENE	19	16
JOHN F CARR	5070 MILLWOOD LN NW	1/2 - 1 SE	20	16

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/23/2003 has revealed that there are 4 FINDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NATIONAL IMAGERY AND MAPPING A	***6000 MACARTHUR BOULEVAR***	***1/8 - 1/4 NW***	***4***	***8***
SIBLEY MEMORIAL HOSPITAL	***5255 LOUGHBORO RD NW***	***1/4 - 1/2 SSE***	***B5***	***8***
EXXON RAS 26200	***6100 MACARTHUR BLVD***	***1/4 - 1/2 NW***	***C9***	***12***
OVERLOOK COMMUNITY POOL	4406 BOX WOOD ROAD	1/4 - 1/2 NNE	11	13

HMIRS: The Hazardous Materials Incident Report System contains hazardous material spill incidents reported to the Department of Transportation. The source of this database is the U.S. EPA.

A review of the HMIRS list, as provided by EDR, and dated 08/11/2003 has revealed that there is 1 HMIRS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	4419 CHALFONT PLACE	1/4 - 1/2 N	10	13

EXECUTIVE SUMMARY

MLTS: The Material Licensing Tracking System is maintained by the Nuclear Regulatory Commission and contains a list fo approximately 8,100 sites which possess or use radioactive materials and are subject to NRC licensing requirements.

A review of the MLTS list, as provided by EDR, and dated 10/16/2003 has revealed that there are 2 MLTS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SIBLEY MEMORIAL HOSPITAL	5255 LOUGHBORO ROAD, NW	1/4 - 1/2SSE	B6	10
SIBLEY MEMORIAL HOSPITAL	5255 LOUGHBORO ROAD N.W	1/4 - 1/2SSE	B7	10

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
ST JOHNS DEVELOPMENT CTR	FTTS INSP
DINWIDDIE STREET MERCURY ASSESSMENT	CERCLIS, FINDS
WASHINGTON NAVY YARD	LUST
J.C. ASSOCIATE	LUST
THE WESTCHESTER	LUST
DEPARTMENT OF THE ARMY	LUST
POST PROPERTIES	LUST
RED BRICK LLC	LUST
BROWN JUNIOR HIGH SCHOOL	LUST
NAVAL RESEARCH LAB #71	LUST
DEAL JR. H.S.	LUST
MCLEAN SHOPPING CENTER	UST, LTANKS
MCLEAN FIRE STATION CO 1	UST
NATIONAL MUSEUM OF NATIVE AMERICAN HISTORY	UST
KINDLAND PROPERTIES INC.	UST
EXXON CO USA 25361	RCRIS-SQG
CHEVRON USA PRODUCTS C0#122172	RCRIS-SQG, FINDS
US GEORGE WASHINGTON MEM PARKWAY	RCRIS-SQG, FINDS

OVERVIEW MAP - 01122495.5r - CH2M Hill, Inc.

0 1/2 1 2 Miles

- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Dalecarlia Reservoir	CUSTOMER:	CH2M Hill, Inc.
ADDRESS:	Dalecarlia Reservoir	CONTACT:	Jennifer Wilson
CITY/STATE/ZIP:	Washington DC 20016	INQUIRY #:	01122495.5r
LAT/LONG:	38.9405 / 77.1123	DATE:	February 03, 2004 9:43 am

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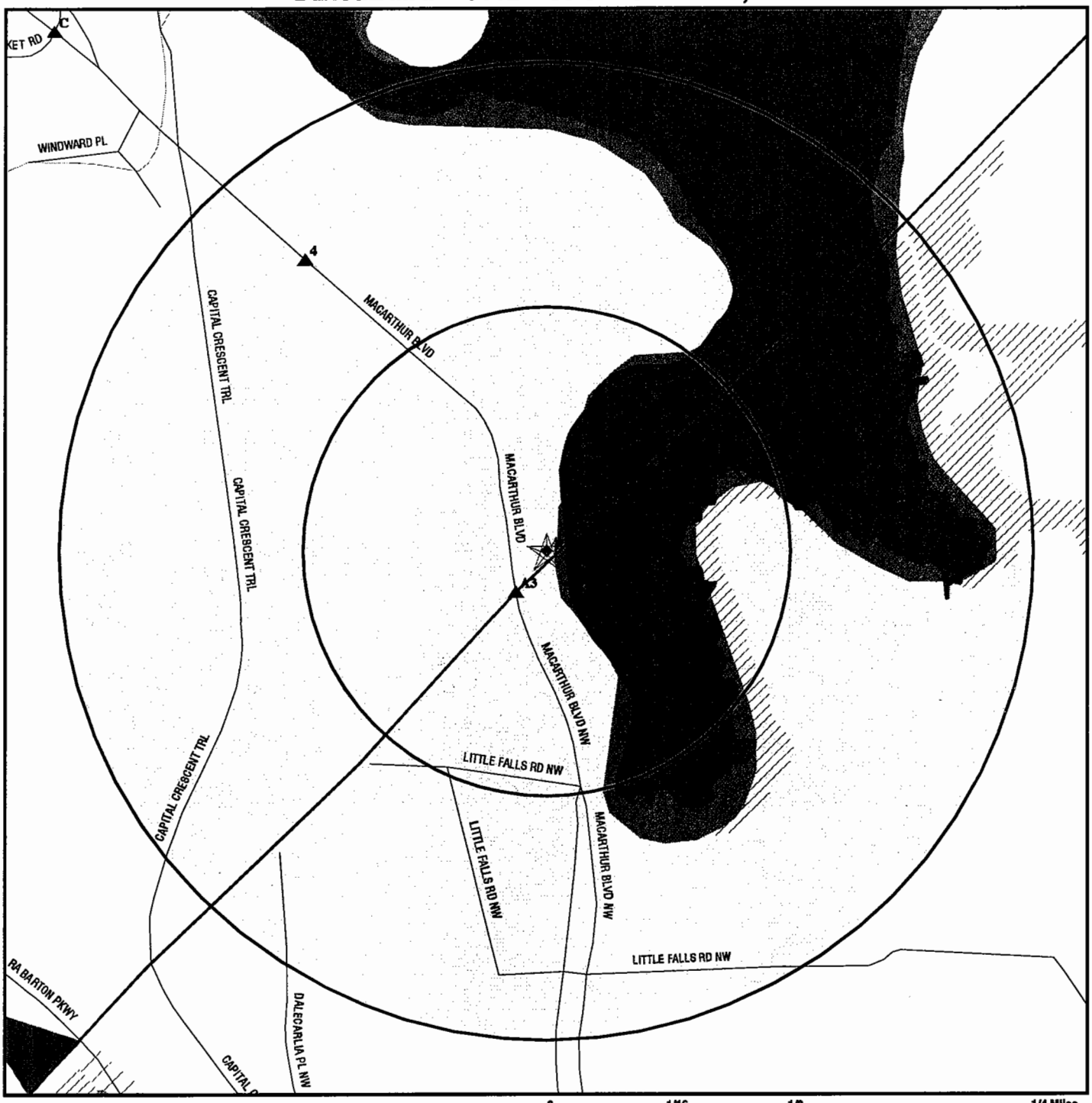
DETAIL MAP - 01122495.5r - CH2M Hill, Inc.



- ☆ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Dalecarlia Reservoir	CUSTOMER:	CH2M Hill, Inc.
ADDRESS:	Dalecarlia Reservoir	CONTACT:	Jennifer Wilson
CITY/STATE/ZIP:	Washington DC 20016	INQUIRY #:	01122495.5r
LAT/LONG:	38.9405 / 77.1123	DATE:	February 03, 2004 9:44 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	1	0	NR	1
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	1	2	2	NR	5
ERNS		0.500	0	0	0	NR	NR	0
STATE ASTM STANDARD								
State Haz. Waste		N/A	N/A	N/A	N/A	N/A	N/A	N/A
LUST	X	1.000	0	0	0	5	NR	5
UST	X	0.750	1	0	3	5	NR	9
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.500	0	0	0	0	0	0
ROD		1.500	0	0	0	0	0	0
Delisted NPL		1.500	0	0	0	0	0	0
FINDS		0.500	0	1	3	NR	NR	4
HMIRS		0.500	0	0	1	NR	NR	1
MLTS		0.500	0	0	2	NR	NR	2
MINES		0.750	0	0	0	0	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
US BROWNFIELDS		1.000	0	0	0	0	NR	0
DOD		1.500	0	0	0	0	0	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
FTTS		0.500	0	0	0	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1
Target
Property

DALECARLIA WTP
5900 MACARTHUR BV NW
WASHINGTON DC, DC 20016

UST **U002109674**
N/A

Site 1 of 3 in cluster A

Actual:
152 ft.

UST:
Facility ID: 3000007
Owner: US ARMY DISTRICT, BALTIMORE, WAD

A2
Target
Property

DALECARLIA WATER TREATMENT PLANT
5900 MACARTHUR BLVD., NW
WASHINGTON DC, DC

LUST **S105029682**
N/A

Site 2 of 3 in cluster A

Actual:
152 ft.

LUST:
Case Number: 99080
Facility Status: OPEN
Facility Type : Federal
Quadrant : NW

A3
SW
< 1/8
138 ft.

WASHINGTON AQUEDUCT, DALECARLIA WATER TREATMENT PL
5900 MACARTHUR BOULEVARD, N.W.
WASHINGTON, MD 20315

UST **U003877014**
N/A

Site 3 of 3 in cluster A

Relative:
Higher

Actual:
162 ft.

UST:
Facility ID: 5386
Facility Phone: (202) 764-2639
Capacity: 5000
Tank Status: CURRENTLY IN USE
Product: GASOLINE
Owner Id: 3331
Owner Name: U.S. Army Corps of Engineers-Baltimore District
Address: 5900 MacArthur Boulevard, N.W.
Washington, DC 20315
Contact: Patricia Gamby
Phone: (202) 764-2639
First Name: Patricia
Last Name: Gamby

Facility ID: 5386
Facility Phone: (202) 764-2639
Capacity: 2000
Tank Status: PERMANENTLY OUT OF USE
Product: Diesel
Owner Id: 3331
Owner Name: U.S. Army Corps of Engineers-Baltimore District
Address: 5900 MacArthur Boulevard, N.W.
Washington, DC 20315
Contact: Patricia Gamby
Phone: (202) 764-2639
First Name: Patricia
Last Name: Gamby

WASHINGTON AQUEDUCT, DALECARLIA WATER TREATMENT PL (Continued) **U003877014**

Facility ID:	5386
Facility Phone:	(202) 764-2639
Capacity:	5000
Tank Status:	PERMANENTLY OUT OF USE
Product:	GASOLINE
Owner Id:	3331
Owner Name:	U.S. Army Corps of Engineers-Baltimore District
Address:	5900 MacArthur Boulevard, N.W.
	Washington, DC 20315
Contact:	Patricia Gamby
Phone:	(202) 764-2639
First Name:	Patricia
Last Name:	Gamby

Facility ID:	5386
Facility Phone:	(202) 764-2639
Capacity:	2500
Tank Status:	CURRENTLY IN USE
Product:	Diesel
Owner Id:	3331
Owner Name:	U.S. Army Corps of Engineers-Baltimore District
Address:	5900 MacArthur Boulevard, N.W.
	Washington, DC 20315
Contact:	Patricia Gamby
Phone:	(202) 764-2639
First Name:	Patricia
Last Name:	Gamby

Facility ID:	5386
Facility Phone:	(202) 764-2639
Capacity:	550
Tank Status:	PERMANENTLY OUT OF USE
Product:	Heating Oil
Owner Id:	3331
Owner Name:	U.S. Army Corps of Engineers-Baltimore District
Address:	5900 MacArthur Boulevard, N.W.
	Washington, DC 20315
Contact:	Patricia Gamby
Phone:	(202) 764-2639
First Name:	Patricia
Last Name:	Gamby

Facility ID:	5386
Facility Phone:	(202) 764-2639
Capacity:	10000
Tank Status:	PERMANENTLY OUT OF USE
Product:	Heating Oil
Owner Id:	3331
Owner Name:	U.S. Army Corps of Engineers-Baltimore District
Address:	5900 MacArthur Boulevard, N.W.
	Washington, DC 20315
Contact:	Patricia Gamby
Phone:	(202) 764-2639
First Name:	Patricia
Last Name:	Gamby

WASHINGTON AQUEDUCT, DALECARLIA WATER TREATMENT PL (Continued) **U003877014**

Facility ID: 5386
Facility Phone: (202) 764-2639
Capacity: 10000
Tank Status: CURRENTLY IN USE
Product: Heating Oil
Owner Id: 3331
Owner Name: U.S. Army Corps of Engineers-Baltimore District
Address: 5900 MacArthur Boulevard, N.W.
Washington, DC 20315
Contact: Patricia Gamby
Phone: (202) 764-2639
First Name: Patricia
Last Name: Gamby

4
NW
1/8-1/4
1026 ft.

Relative:
Higher

Actual:
212 ft.

NATIONAL IMAGERY AND MAPPING AGENCY **RCRIS-SQG** **1000208460**
6000 MACARTHUR BOULEVARD **FINDS** **MD1210020037**
BETHESDA, MD 20816

RCRIS:
Owner: US ARMY CORPS OF ENGINEERS
(301) 227-5581
EPA ID: MD1210020037
Contact: JOHNNY R JENNINGS
(301) 227-5581
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

B5
SSE
1/4-1/2
1853 ft.

Relative:
Higher

Actual:
187 ft.

SIBLEY MEMORIAL HOSPITAL **RCRIS-SQG** **1000282614**
5255 LOUGHBORO RD NW **FINDS** **DCD074828344**
WASHINGTON, DC 20016 **CERC-NFRAP**
UST

Site 1 of 3 in cluster B

CERCLIS-NFRAP Classification Data:
Site Incident Category: Not reported
Non NPL Code: NFRAP
Ownership Status: Private
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	10/15/1996
Assessment:	REMOVAL ASSESSMENT	Completed:	10/22/1996
Assessment:	PRELIMINARY ASSESSMENT	Completed:	10/14/1999
Assessment:	ARCHIVE SITE	Completed:	08/24/2000

SIBLEY MEMORIAL HOSPITAL (Continued) **1000282614**

RCRIS:
Owner: SIBLEY MEMORIAL HOSPITAL
(202) 537-4651
EPA ID: DCD074828344

Contact: BARBARA WILSON
(202) 537-4651

Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported

BIENNIAL REPORTS:
Last Biennial Reporting Year: 2001

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	2400.00	D002	15.00
D008	15.00	D009	10.00
F003	2400.00		

Violation Status: Violations exist

Regulation Violated: 4203.5
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 04/01/1998
Actual Date Achieved Compliance: 04/20/1998

Regulation Violated: 262.41
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 04/04/1994
Actual Date Achieved Compliance: 05/03/1994

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 04/04/1994
Penalty Type: Not reported

Regulation Violated: 262.41(a)
Area of Violation: GENERATOR-RECORDKEEPING REQUIREMENTS
Date Violation Determined: 03/06/1992
Actual Date Achieved Compliance: 03/09/1992

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/06/1992
Penalty Type: Not reported

Regulation Violated: Not reported
Area of Violation: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)
Date Violation Determined: 03/07/1990
Actual Date Achieved Compliance: 03/22/1990

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/16/1990
Penalty Type: Not reported

Regulation Violated: Not reported
Area of Violation: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)
Date Violation Determined: 03/07/1990
Actual Date Achieved Compliance: 03/22/1990

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 03/16/1990
Penalty Type: Not reported

There are 5 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance

SIBLEY MEMORIAL HOSPITAL (Continued) **1000282614**

Non-Financial Record Review	GENERATOR-RECORDKEEPING REQUIREMENTS	19980420
Non-Financial Record Review	GENERATOR-RECORDKEEPING REQUIREMENTS	19940503
Non-Financial Record Review	GENERATOR-RECORDKEEPING REQUIREMENTS	19920309
Compliance Evaluation Inspection	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	19900322
	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	19900322

NY MANIFEST
Additional detail is available in NY MANIFEST. Please contact your EDR Account Executive for more information.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subsystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

UST:
Facility ID: 3000660
Owner: SIBLEY MEMORIAL HOSPITAL

B6 **SIBLEY MEMORIAL HOSPITAL** **MLTS** **1001964063**
SSE **5255 LOUGHBORO ROAD, NW** **N/A**
1/4-1/2 **WASHINGTON, DC 20016**
1853 ft.

Site 2 of 3 in cluster B

Relative: Higher

Actual: 187 ft.

MLTS:
License Number: 08-07398-03
License Date: 07/17/2003
License Expires: 08/31/2004
Primary Program: Medical Institution - QMP required
License Use: Not reported
Department: Not reported
Contact Name: ROBERT L. SLOAN, CEO
States Allowing Use: Not reported
Store Material: No
Redistribution: No
Burial: No
Last Inspection: 04/2001
Inspector Name: N. BHALLA
Next Inspection: 01/2004
First License Date: 01/04/1985
Institution Code: 7398
Building: Not reported
Contact Phone: 202-537-4451
Incineration: No

B7 **SIBLEY MEMORIAL HOSPITAL** **MLTS** **1001964062**
SSE **5255 LOUGHBORO ROAD N.W.** **N/A**
1/4-1/2 **WASHINGTON, DC 20016**
1853 ft.

Site 3 of 3 in cluster B

Relative: Higher

Actual: 187 ft.

MLTS:
License Number: 08-07398-01
License Date: 09/04/1992
License Expires: 02/29/1992
Primary Program: Teletherapy
License Use: Source Material Shielding
Department: Not reported
Contact Name: ESTELA I. PRIETO,MGR.RAD.DEPT
States Allowing Use: Not reported
Store Material: No
Redistribution: No
Burial: No
Last Inspection: 04/1992
Inspector Name: PENNY NESSEN
First License Date: 06/15/1984
Institution Code: 7398
Building: Not reported
Contact Phone: 202-537-4000
Incineration: No

SIBLEY MEMORIAL HOSPITAL (Continued) **1001964062**

Next Inspection: 04/1993

C8
NW
1/4-1/2
1936 ft.

EXXON 26200 **UST** **U003735558**
6100 MACARTHUR BOULEVARD **N/A**
BETHESDA, MD 20816

Site 1 of 2 in cluster C

Relative:
Higher

Actual:
204 ft.

UST:

Facility ID:	3613
Facility Phone:	(301) 229-3350
Capacity:	1000
Tank Status:	PERMANENTLY OUT OF USE
Product:	Used Oil
Owner Id:	8195
Owner Name:	Exxon Mobil Corporation
Address:	5959 Las Colinas Boulevard
	Irving, TX 75039
Contact:	Moraima E. Grinnell
Phone:	(972) 444-1000
First Name:	Not reported
Last Name:	Not reported

Facility ID:	3613
Facility Phone:	(301) 229-3350
Capacity:	1000
Tank Status:	PERMANENTLY OUT OF USE
Product:	Heating Oil
Owner Id:	8195
Owner Name:	Exxon Mobil Corporation
Address:	5959 Las Colinas Boulevard
	Irving, TX 75039
Contact:	Moraima E. Grinnell
Phone:	(972) 444-1000
First Name:	Not reported
Last Name:	Not reported

Facility ID:	3613
Facility Phone:	(301) 229-3350
Capacity:	6000
Tank Status:	CURRENTLY IN USE
Product:	GASOLINE
Owner Id:	8195
Owner Name:	Exxon Mobil Corporation
Address:	5959 Las Colinas Boulevard
	Irving, TX 75039
Contact:	Moraima E. Grinnell
Phone:	(972) 444-1000
First Name:	Not reported
Last Name:	Not reported

Facility ID:	3613
Facility Phone:	(301) 229-3350
Capacity:	10000
Tank Status:	CURRENTLY IN USE
Product:	GASOLINE
Owner Id:	8195
Owner Name:	Exxon Mobil Corporation
Address:	5959 Las Colinas Boulevard

EXXON 26200 (Continued) **U003735558**

Irving, TX 75039
Contact: Moraima E. Grinnell
Phone: (972) 444-1000
First Name: Not reported
Last Name: Not reported

Facility ID: 3613
Facility Phone: (301) 229-3350
Capacity: 1000
Tank Status: PERMANENTLY OUT OF USE
Product: Heating Oil
Owner Id: 8195
Owner Name: Exxon Mobil Corporation
Address: 5959 Las Colinas Boulevard
Irving, TX 75039
Contact: Moraima E. Grinnell
Phone: (972) 444-1000
First Name: Not reported
Last Name: Not reported

Facility ID: 3613
Facility Phone: (301) 229-3350
Capacity: 8000
Tank Status: CURRENTLY IN USE
Product: GASOLINE
Owner Id: 8195
Owner Name: Exxon Mobil Corporation
Address: 5959 Las Colinas Boulevard
Irving, TX 75039
Contact: Moraima E. Grinnell
Phone: (972) 444-1000
First Name: Not reported
Last Name: Not reported

C9
NW
1/4-1/2
1936 ft.

Relative:
Higher

Actual:
204 ft.

EXXON RAS 26200 **RCRIS-SQG 1000865187**
6100 MACARTHUR BLVD **FINDS MDD985423565**
BETHESDA, MD 20816

Site 2 of 2 in cluster C

RCRIS:
Owner: WILLIE E PARKER
(301) 229-3350
EPA ID: MDD985423565
Contact: ALLEN SCRUGGS
(301) 229-3350
Classification: Small Quantity Generator
TSDF Activities: Not reported

EXXON RAS 26200 (Continued) **1000865187**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subsystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

10
North
1/4-1/2
1955 ft.

4419 CHALFONT PLACE **HMIRS** **9998070755**
BETHESDA, MD **N/A**

Relative:
Higher

Actual:
202 ft.

The HMIRS database may contain additional details for this site.
Please click here or contact your EDR Account Executive for more information.

11
NNE
1/4-1/2
2374 ft.

OVERLOOK COMMUNITY POOL **FINDS** **1006330125**
4406 BOX WOOD ROAD **110012751389**
BETHESDA, MD 20816

Relative:
Higher

Actual:
223 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Permit Compliance System (PCS)

12
SE
1/4-1/2
2427 ft.

JAMES M. MURPHY, JR. **UST** **U002109953**
4902 PALISADE LA NW **N/A**
WASHINGTON DC, DC 20016

Relative:
Higher

Actual:
247 ft.

UST:
Facility ID: 3002267
Owner: JAMES M. MURPHY, JR.

D13
NNW
1/2-1
2932 ft.

SUMNER HIGHLANDS APARTMENT — **UST** — **U003735675**
4511 SANGAMORE ROAD — **N/A**
BETHESDA, MD 20816

Site 1 of 2 in cluster D

Relative:
Higher

Actual:
198 ft.

UST:

Facility ID:	3761
Facility Phone:	(202) 895-2700
Capacity:	5000
Tank Status:	PERMANENTLY OUT OF USE
Product:	Heating Oil
Owner Id:	2449
Owner Name:	Miller, W.C. and A.N.
Address:	4315 50th Street, NW Washington, DC 20016
Contact:	Bill Miller
Phone:	(202) 895-2718
First Name:	William C.
Last Name:	Miller

14
ENE
1/2-1
2943 ft.

ELIZABETH WILLIAMS — **UST** — **U003294460**
4070 52ND ST NW — **N/A**
WASHINGTON DC, DC 20016

Relative:
Higher

Actual:
235 ft.

UST:

Facility ID:	9000128
Owner:	ELIZABETH WILLIAMS

D15
NNW
1/2-1
2982 ft.

SUMNER HIGHLANDS APARTMENT — **UST** — **U003735676**
4521 SANGAMORE ROAD — **N/A**
BETHESDA, MD 20816

Site 2 of 2 in cluster D

Relative:
Higher

Actual:
196 ft.

UST:

Facility ID:	3762
Facility Phone:	(202) 895-2718
Capacity:	5000
Tank Status:	PERMANENTLY OUT OF USE
Product:	Heating Oil
Owner Id:	2449
Owner Name:	Miller, W.C. and A.N.
Address:	4315 50th Street, NW Washington, DC 20016
Contact:	Bill Miller
Phone:	(202) 895-2718
First Name:	William C.
Last Name:	Miller

SUMNER HIGHLANDS APARTMENT (Continued) U003735676

E16 **DEFENSE MAPPING** Historical LUST S101184037
NNW **4600 SANGAMORE ROAD** N/A
1/2-1 **POTOMAC, MD**
3421 ft.

Site 1 of 2 in cluster E

Relative:
Higher

Actual:
218 ft.

LUST Historical:
Case Number: 9-0682MO
County: MONTGOMERY
Open/Closed: OPEN
Recover Type: Monitoring - No active remediation. Sampling of monitoring wells only

---

E17 **NIMA** RCRIS-SQG 1000208461
NNW **4600 SANGAMORE ROAD # D131** FINDS MD5210090010
1/2-1 **BETHESDA, MD 20816**
3421 ft.

Site 2 of 2 in cluster E

Relative:
Higher

Actual:
218 ft.

RCRIS:
Owner: DEPARTMENT OF DEFENSE
(301) 227-5581
EPA ID: MD5210090010
Contact: JOHNNY R JENNINGS
(301) 227-5581
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subsystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

---

18 **MOBIL OIL CORP SS# GD8** RCRIS-SQG 1000706654
SW **2084 CHAI BRIDGE RD** FINDS VAD988217451
1/2-1 **FAIRFAX, VA 22180**
3690 ft.

Relative:
Higher

Actual:
165 ft.

RCRIS:
Owner: MOBIL OIL CORP
(703) 849-3566
EPA ID: VAD988217451
Contact: ROBERT BAKER
(703) 356-3367
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported

MOBIL OIL CORP SS# GD8 (Continued) **1000706654**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

19
ENE
1/2-1
3862 ft.

Relative:
Higher

Actual:
287 ft.

LETIZIA AMADINI & ANTONIO CITTATI **UST** **U003055081**
4208 50TH ST NW **N/A**
WASHINGTON DC, DC 20019

UST:
Facility ID: 9000251
Owner: LETIZIA AMADINI & ANTONIO CITTATI

20
SE
1/2-1
3872 ft.

Relative:
Higher

Actual:
248 ft.

JOHN F CARR **UST** **U003865193**
5070 MILLWOOD LN NW **N/A**
WASHINGTON DC, DC 20016

UST:
Facility ID: 9000526
Owner: MR JOHN F. CARR

21
SSE
1/2-1
4414 ft.

Relative:
Higher

Actual:
158 ft.

EXXON **LUST** **S103817117**
5443 MACARTHUR BLVD, NW **N/A**
WASHINGTON DC, DC

LUST:
Case Number: 89040
Facility Status: CLOSED
Facility Type : Gas Station
Quadrant : NW

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
F22 ENE 1/2-1 4915 ft.	**EXXONMOBIL CORP #25669** **4866 MASSACHUSETTS AVE NW** **WASHINGTON, DC 20016**	RCRIS-SQG FINDS LUST	1001404465 DCD982575169

Site 1 of 4 in cluster F

Relative: Higher

Actual: 236 ft.

RCRIS:
Owner: EXXON MOBIL
(713) 656-9075
EPA ID: DCD982575169
Contact: Not reported
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

LUST:
Case Number: 89025
Facility Status: OPEN
Facility Type : Gas Station
Quadrant : NW

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
F23 ENE 1/2-1 4934 ft.	**EXXON CO USA RAS#27834** **4861 MASSACHUSETTS AVE NW** **WASHINGTON, DC 20016**	RCRIS-SQG FINDS LUST	1001481345 DCD983968520

Site 2 of 4 in cluster F

Relative: Higher

Actual: 237 ft.

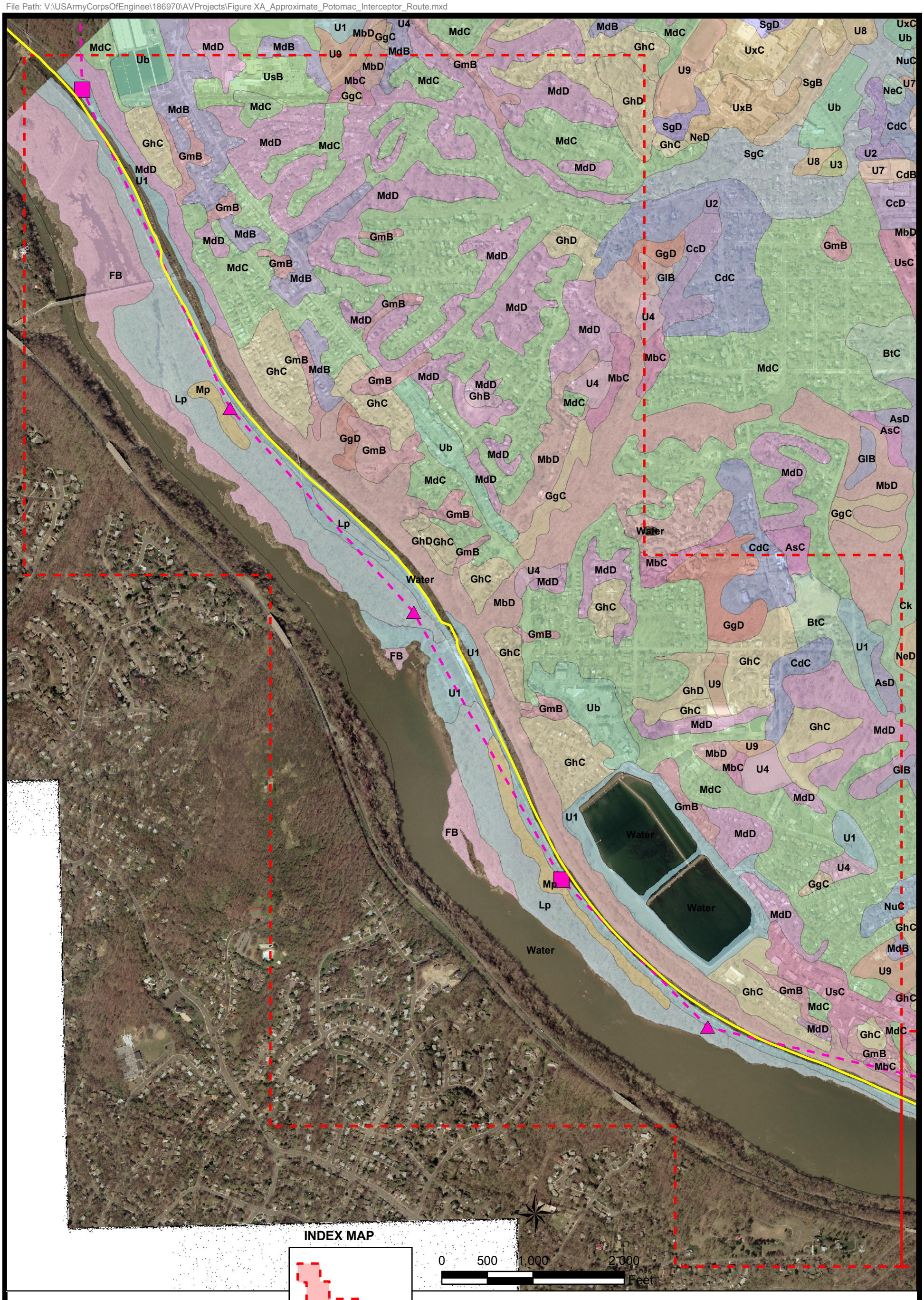
RCRIS:
Owner: EXXON MOBIL
(281) 296-3655
EPA ID: DCD983968520
Contact: ALDA POOL
(281) 296-3579
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
Resource Conservation and Recovery Act Information system (RCRAINFO)

LUST:
Case Number: 99022
Facility Status: CLOSED
Facility Type : Gas Station
Quadrant : NW

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
F24 **ENE** **1/2-1** **4934 ft.** **Relative: Higher** **Actual: 237 ft.**	**CHEVRON** **4861 MASSACHUSETTS AVENUE, NW** **WASHINGTON DC, DC** **Site 3 of 4 in cluster F** LUST: Case Number: 93056 Facility Status: OPEN Facility Type : Gas Station Quadrant : NW	**LUST**	**S104918734** **N/A**
F25 **ENE** **1/2-1** **5021 ft.** **Relative: Higher** **Actual: 242 ft.**	**RIGGS NATIONAL BANK OF WASH.** **4835 MASSACHUSETTS AVE., NW** **WASHINGTON DC, DC** **Site 4 of 4 in cluster F** LUST: Case Number: 91018 Facility Status: CLOSED Facility Type : Other Quadrant : NW	**LUST**	**S104918731** **N/A**

File Path: V:\USArmyCorpsOfEnginee\186970\AVProjects\Figure XA_Approximate_Potomac_Interceptor_Route.mxd



Legend

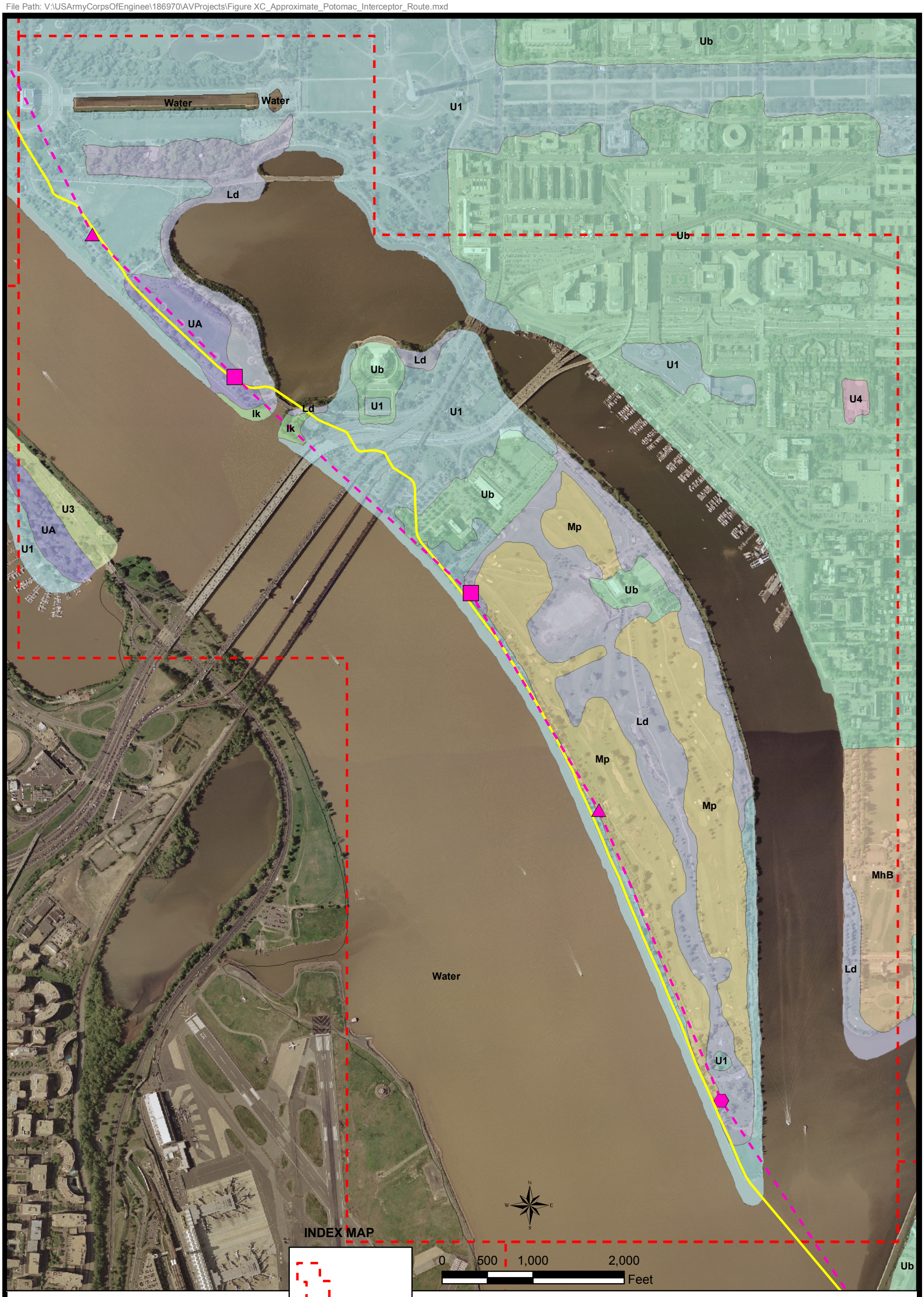
- Potomac Interceptor Route
- Proposed Pipe Feed
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

Approximate Potomac Interceptor Route

The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

CH2MHILL

File Path: V:\USArmyCorpsOfEnginee\186970\AVProjects\Figure XC_Approximate_Potomac_Interceptor_Route.mxd



Legend

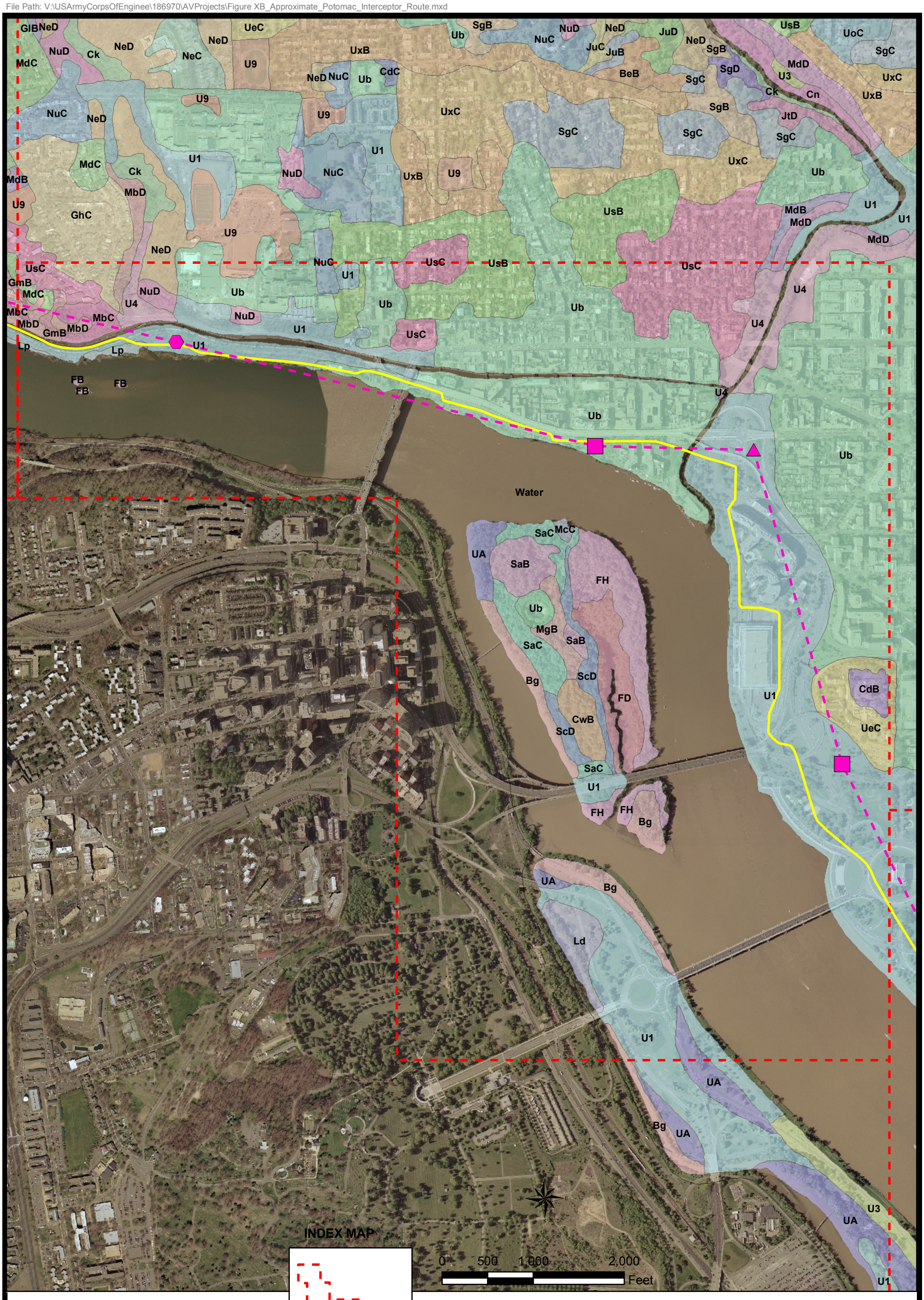
- Potomac Interceptor Route
- Proposed Pipe Feed
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

Approximate Potomac Interceptor Route

The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

CH2MHILL

File Path: V:\USArmyCorpsOfEnginee\186970\AVProjects\Figure XB_Approximate_Potomac_Interceptor_Route.mxd



Legend

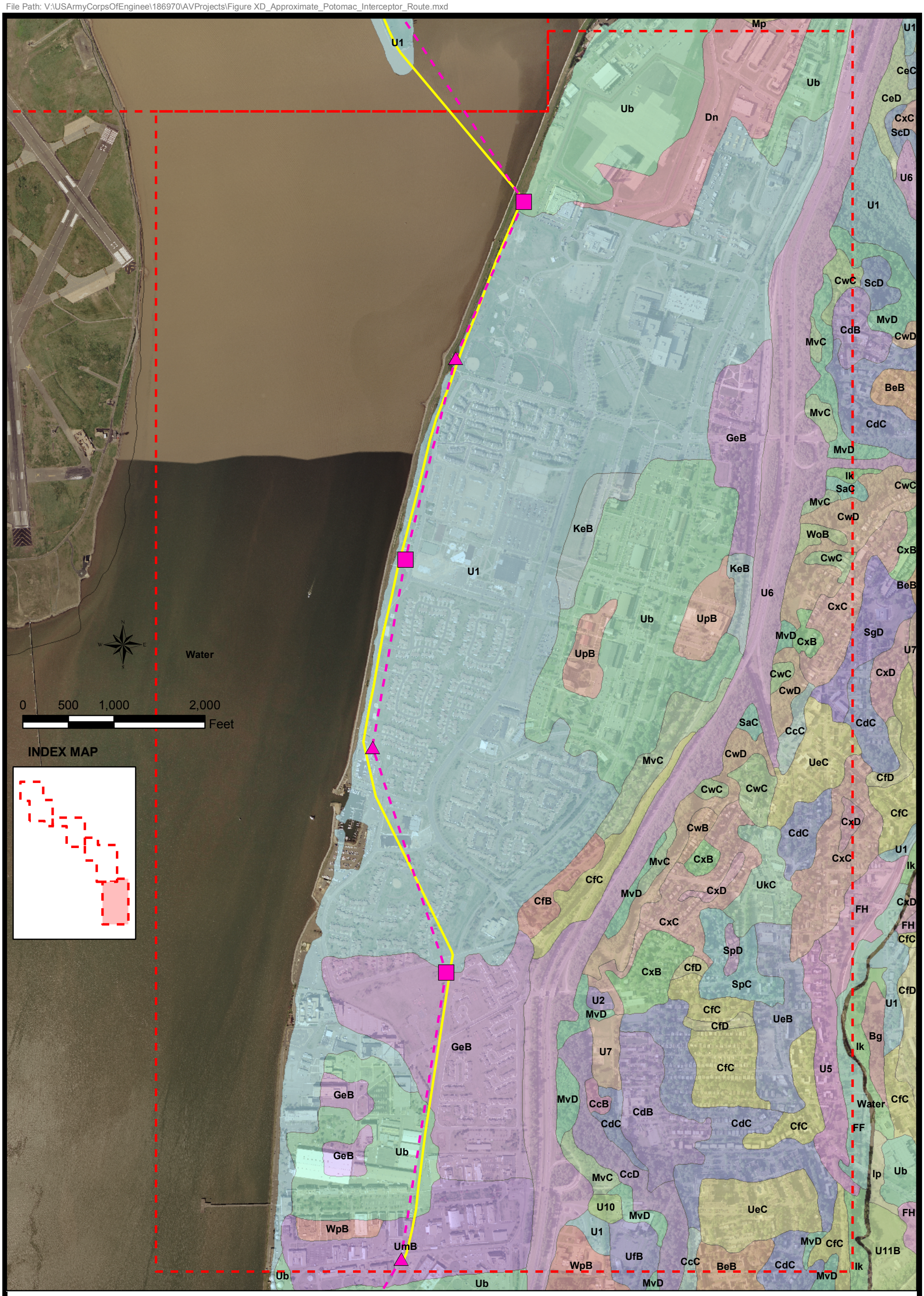
- Potomac Interceptor Route
- Proposed Pipe Feed
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

Approximate Potomac Interceptor Route

The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

CH2MHILL

File Path: V:\USArmyCorpsOfEnginee\186970\AVProjects\Figure XD_Approximate_Potomac_Interceptor_Route.mxd



Legend

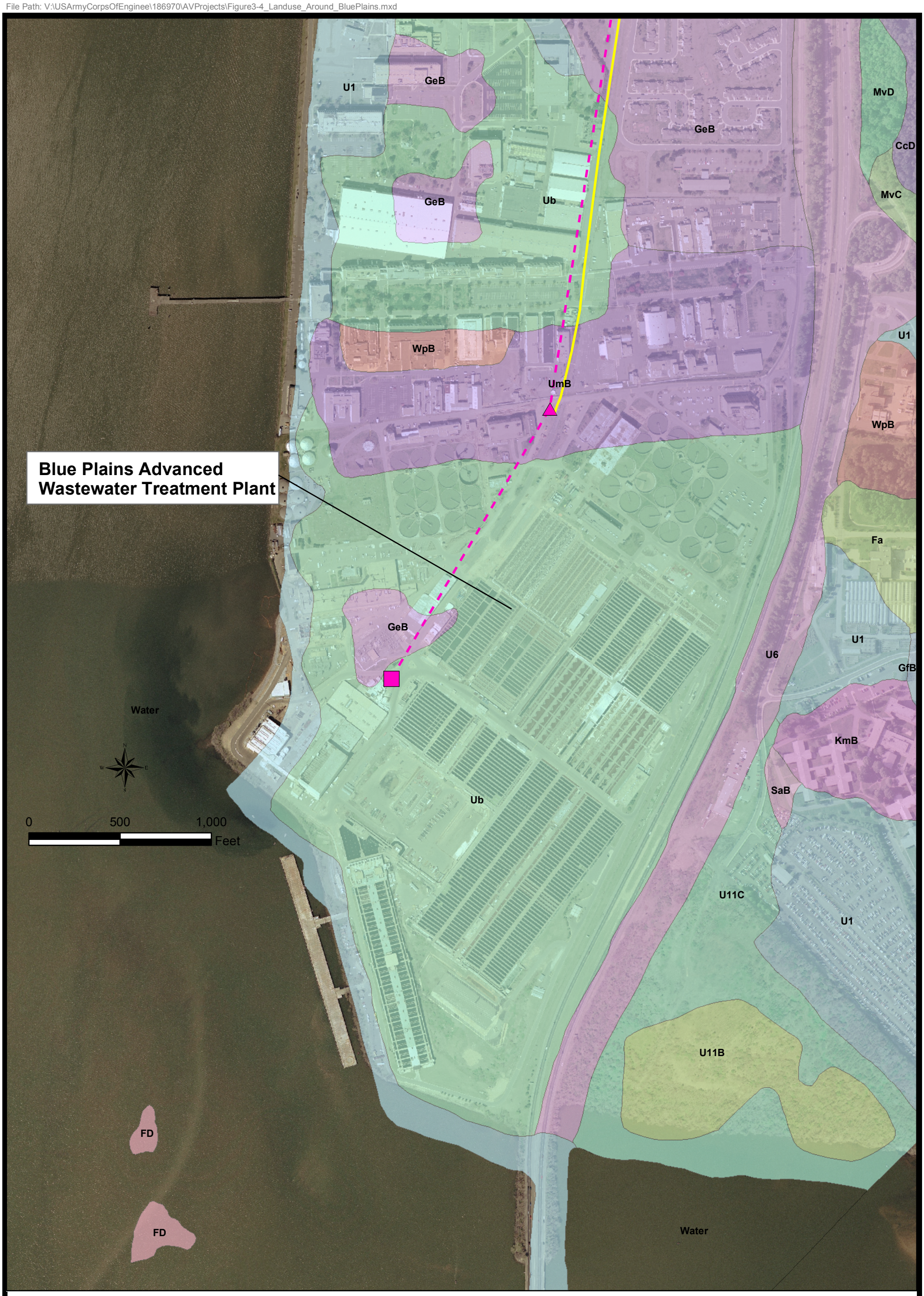
- Potomac Interceptor Route
- Proposed Pipe Feed
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

Approximate Potomac Interceptor Route

The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

CH2MHILL

File Path: V:\USArmyCorpsOfEnginee\186970\AVProjects\Figure3-4_Landuse_Around_BluePlains.mxd



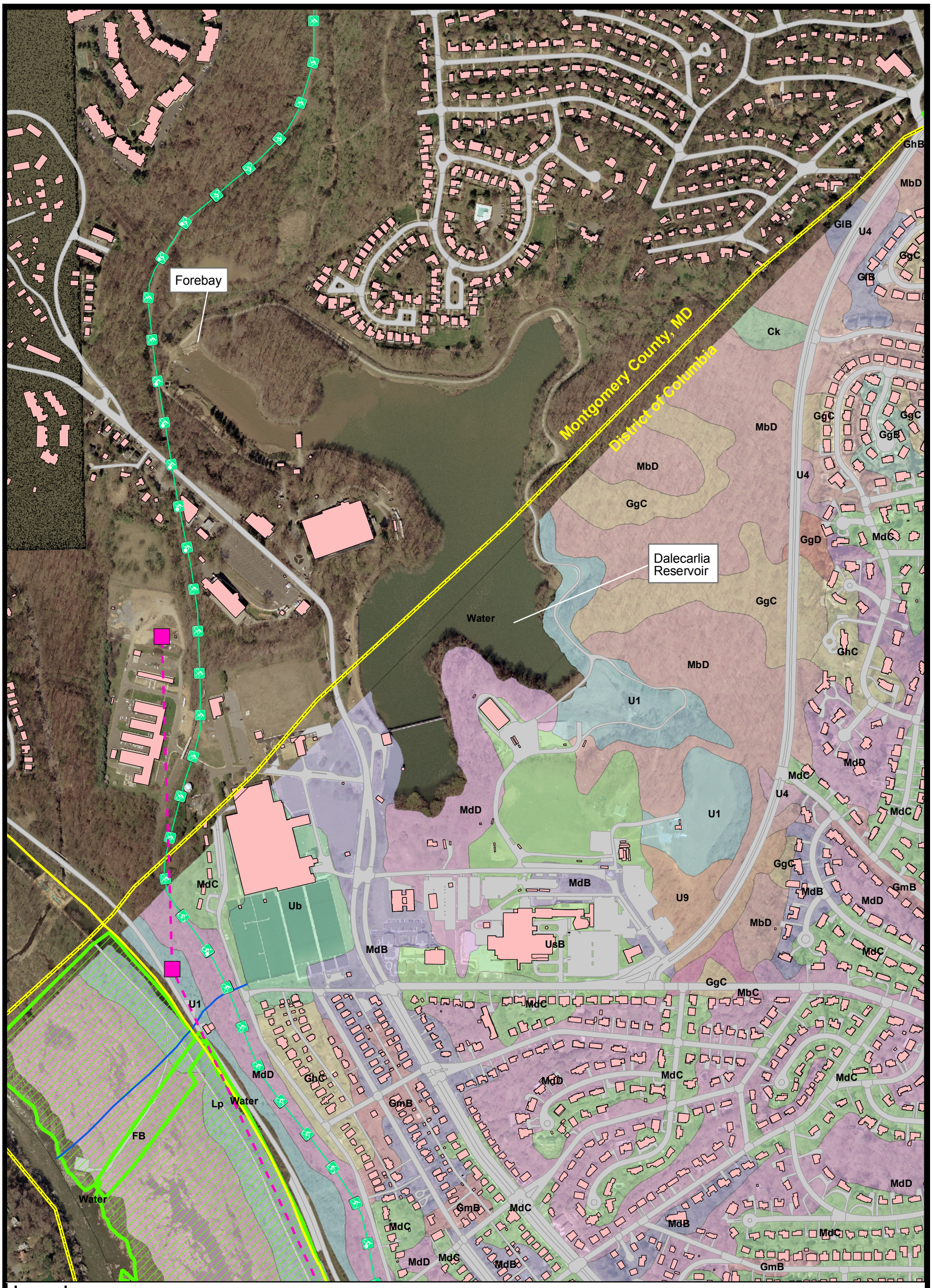
Legend

- Potomac Interceptor Route
- Proposed Pipe Feed
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

Land Use Around the Blue Plains Advanced Wastewater Treatment Plant

The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

CH2MHILL



Legend

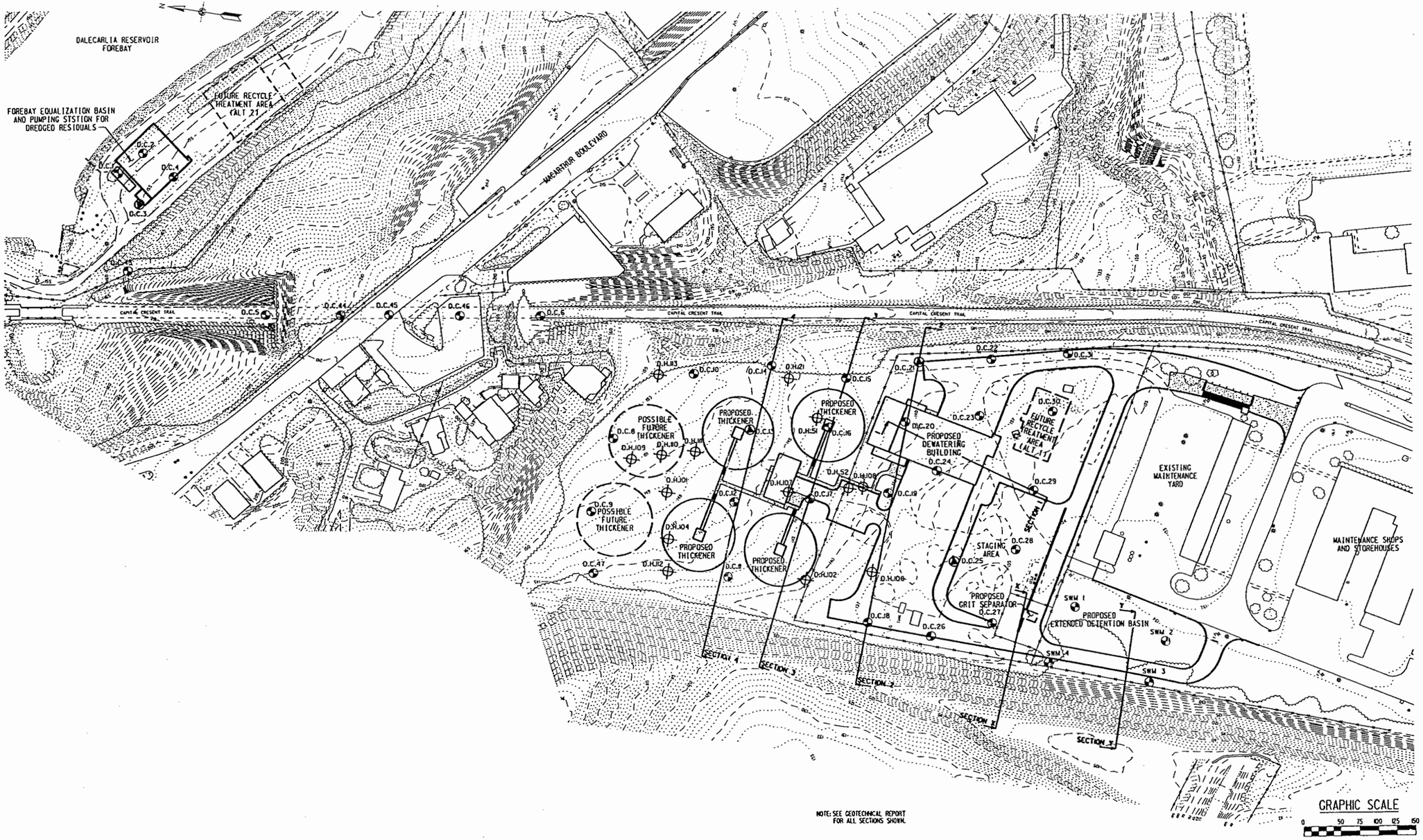
- Potomac Interceptor Route
- Proposed Pipe Feed
- Capital Crescent Bike Trail
- Approximate Location of the Discharge Pipe to the Potomac Interceptor
- County Boundary
- Buildings
- Parks
- Roads
- Drill Rig Site
- Pipe Feed Site
- Combination Drill Rig and Pipe Feed Site

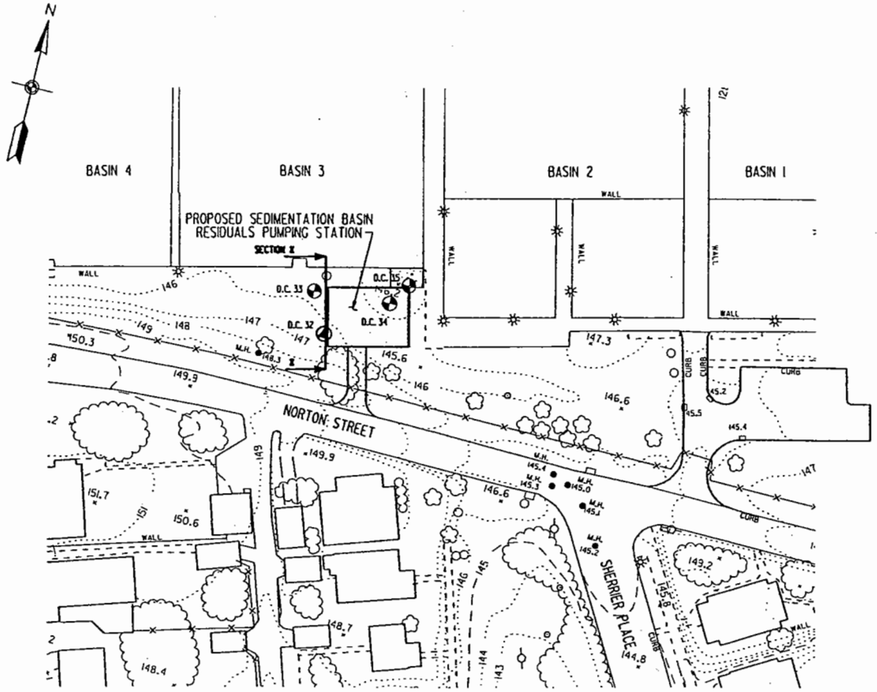
The geographic information shown on this map is based on data from the District of Columbia Geographic Information System (DC GIS). The District Government makes no warranty, express or implied, and disclaims all implied warranties of suitability of the DC GIS product for a particular purpose.

0 250 500 1,000 Feet

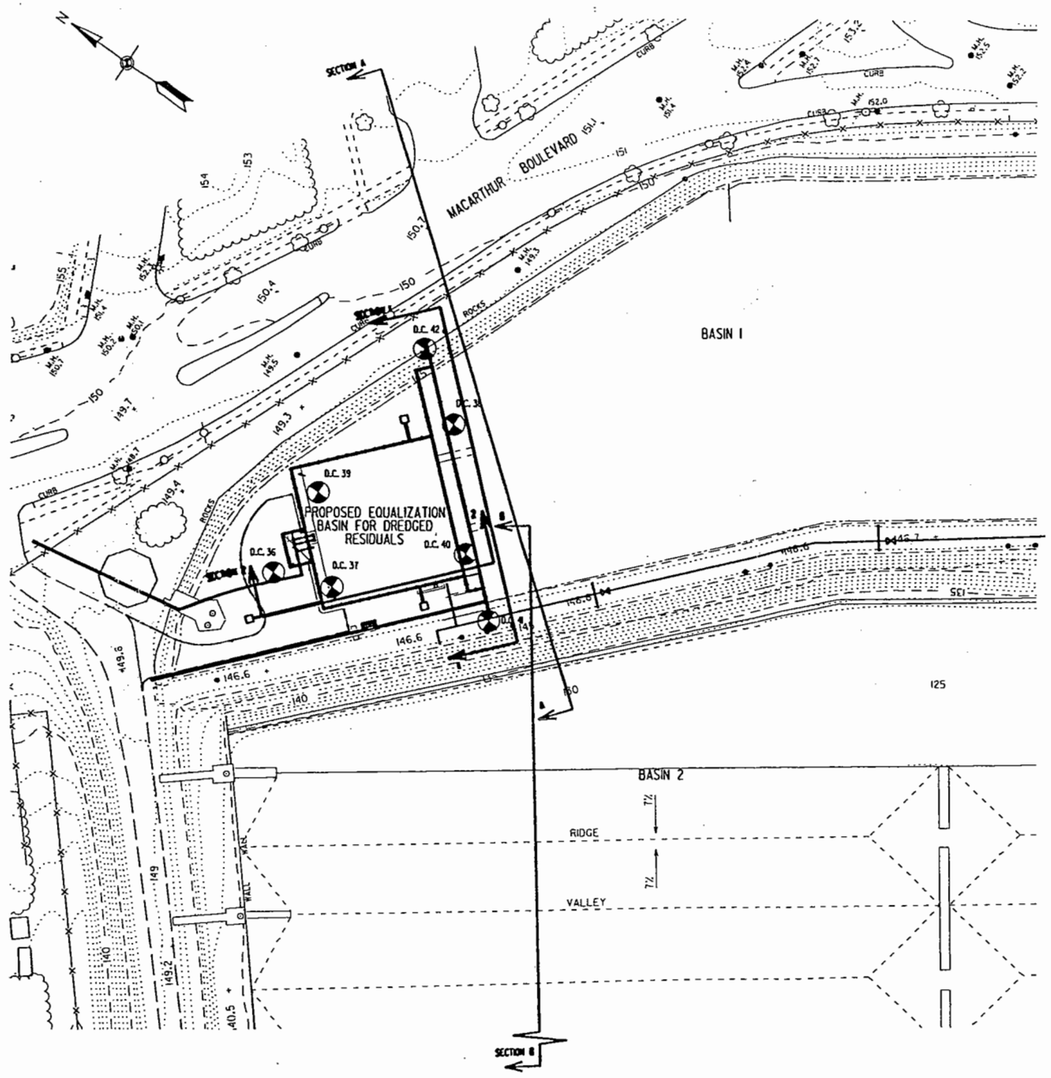
Park Locations Around the Dalecarlia Reservoir and the Dalecarlia Water Treatment Plant

CH2MHILL


DALECARLIA RESERVOIR FOREBAY
FOREBAY EQUALIZATION BASIN AND PUMPING STSTION FOR DREDGED RESIDUALS
FUTURE RECYCLE TREATMENT AREA (ALT 2)
MACARTHUR BOULEVARD
CAPITAL CRESENT TRAIL
POSSIBLE FUTURE THICKENER
PROPOSED THICKENER
PROPOSED DEWATERING BUILDING
FUTURE RECYCLE TREATMENT AREA (ALT 1)
EXISTING MAINTENANCE YARD
MAINTENANCE SHOPS AND STOREHOUSES
STAGING AREA
PROPOSED GRIT SEPARATOR
PROPOSED EXTENDED DETENTION BASIN
SWM 1
SWM 2
SWM 3
SWM 4
SECTION 1
SECTION 2
SECTION 3
SECTION 4
SECTION 5
SECTION 6
NOTE: SEE GEOTECHNICAL REPORT FOR ALL SECTIONS SHOWN.
GRAPHIC SCALE
0 50 75 100 125 150
SCALE: 1" = 50'-0"
LEGEND
SOIL BORINGS IN CURRENT SUBSURFACE INVESTIGATION
GROUNDWATER MONITORING WELLS IN CURRENT SUBSURFACE INVESTIGATION
PREVIOUSLY DRILLED SOIL BORINGS
U.S. ARMY ENGINEER DISTRICT, BALTIMORE
CORPS OF ENGINEERS
BALTIMORE, MARYLAND
WASHINGTON AQUEDUCT DIVISION
DALECARLIA WTP AND GEORGETOWN RESERVOIR RESIDUALS COLLECTION AND TREATMENT
DALECARLIA FOREBAY, TUNNEL AND DEWATERING FACILITY AREAS
BORING LOCATION PLAN
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND (410) 235-3450
DRAWING NUMBER
PLATE
SCALE: 1" = 50'
FIGURE 2
SHEET C-12
WR&A \ 13844 \ DALEC12.DGN
DESIGN MEMORANDUM - 135% FINAL SUBMISSION



SEDIMENTATION BASIN AREA



GEORGETOWN RESERVOIR AREA

NOTE: SEE GEOTECHNICAL REPORT FOR ALL SECTIONS SHOWN.

GRAPHIC SCALE

0 10 20 30 60 90

SCALE: 1" = 30'-0"

LEGEND

- SOIL BORINGS IN CURRENT SUBSURFACE INVESTIGATION
- GROUNDWATER MONITORING WELLS IN CURRENT SUBSURFACE INVESTIGATION

U.S. ARMY ENGINEER DISTRICT, BALTIMORE
CORPS OF ENGINEERS
BALTIMORE, MARYLAND

WASHINGTON AQUEDUCT DIVISION

DALECARLIA WTP AND GEORGETOWN RESERVOIR RESIDUALS COLLECTION AND TREATMENT

GEORGETOWN RESERVOIR AREA AND SEDIMENTATION BASIN AREA

BORING LOCATION PLAN

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND (410) 235-3450	DRAWING NUMBER	PLATE
SCALE: 1" = 30'	FIGURE 3	SHEET C-13

WR&A \ 13044 \ DALEC13.DGN

DESIGN MEMORANDUM - (35%) FINAL SUBMISSION

GEOMATRIX, INC.
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-8
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/11/95
START:	07/11/95 END: 07/11/95	ELEVATION:	152.2 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	17.0	Tan, dry, very loose to medium dense to loose, silty sand, with trace of roots (fill)	1	0	1.5	1	2	2	18"
17.0	22.0	Gray, damp, medium stiff organic clay (fill)	2	4.5	6.0	3	4	5	18"
22.0	50.5	Tan, dry, loose to very dense micaceous silty sand, (decomposed rock)	3	9.5	11.0	7	8	9	18"
50.5	60.5	Gray, medium to hard, fractured rock	4	14.5	16.0	3	4	5	18"
			5	19.5	21.0	10	5	5	18"
			6	24.5	26.0	3	4	4	12"
			7	29.5	31.0	35	50/3		12"
			8	34.5	36.0	31	50/3		12"
			9	39.5	41.0	50/4			4"
			10	44.5	46.0	50/2			2"
		WR&A Note: Strong petroleum-like odors from 5 to	11	49.5	51.0	50/2			2"
		*Auger refusal 50.5 Ft. 10 feet.	12	50.5	55.5	RQD	40%		60"
		*No water encountered while drilling	13	55.5	60.5	RQD	43%		60"
		*Hard augering from 18.5 Ft. to 19.5 Ft.							
		*Bottom at 60.5 Ft.							

Water Dry After 24 Hours Caved 39.0 Ft. Sheet No. 1 of 1

:OM X, II
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

'ROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-9
.OCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/12/95
TART:	07/12/95 **END:** 07/12/95	ELEVATION:	149.4 Ft.
)RILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
rom	To		No.	From	To				
0	7.0	Tan, dry, very loose to loose, clayey silt (fill)	1	0	1.5	1	2	2	16"
7.0	22.0	Tan, dry, medium dense to loose, silty sand with trace of gravel (fill)	2	4.5	6.0	2	3	7	18"
22.0	57.0	Tan, dry, medium dense, clayey silt, with trace of brick & rock fragments & layers of silty sand (fill)	3	9.5	11.0	11	9	10	18"
57.0	61.0	Tan, dry, very dense, silty sand (decomposed rock)	4	14.5	16.0	4	5	5	18"
61.0	71.0	Gray, medium to hard, fractured rock	5	19.5	21.0	3	3	50/6	10"
			6	24.5	26.0	11	10	9	18"
			7	29.5	31.0	10	17	17	6"
			8	34.5	36.0	2	4	12	18"
			9	39.5	41.0	4	6	8	5"
			10	44.5	46.0	5	9	12	3"
			11	49.5	51.0	7	21	9	6"
			12	54.5	56.0	4	5	13	12"
		*Encountered water at 60.0 Ft.	13	59.5	61.0	50/3"			3"
		*Hard augering from 26 Ft. to 28 Ft.	14	61.0	66.0	RQD	20%		60"
			15	66.0	71.0	RQD	10%		60"

er Dry Caved 53.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-10
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/07/95
START:	07/07/95 END: 07/07/95	ELEVATION:	152.4
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2.0	Tan, dry, loose micaceous silty sand (fill)	1	0	1.5	1	2	3	17"
2.0	7.0	Brown, damp, medium stiff, clay (fill)	2	4.5	6.0	3	3	4	14"
7.0	12.0	Tan & brown, dry, medium dense silty sand with trace of rock fragment (fill)	3	9.5	11.0	8	6	5	18"
12.0	31.0	Tan to brown, dry, dense to very dense, micaceous silty sand (decomposed rock)	4	14.5	16.0	8	17	24	18"
31.0	34.0	Gray, medium hard, rock	5	19.5	21.0	6	20	34	18"
34.0	36.0	Tan weathered to decomposed rock	6	24.5	26.0	33	50/5"		11"
36.0	41.0	Gray medium hard rock	7	29.5	29.7	50/2"			2"
			8	31.0	36.0	RQD	7.5%		55"
			9	36.0	41.0	RQD	49%		60"
		*Auger refusal 31 Ft.							
		*No water encountered							
		*Bottom at 41 Ft.							

Water Dry after 24 hours Caved 19.5 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecariia Water Treatment Plant	BORING NO.:	DC-11
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/18/95
START: 07/18/95	END: 07/18/95	ELEVATION:	143.1 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	4.0	Tan, dry, loose, silty sand with trace of roots (fill)	1	0	1.5	2	3	4	9
4.0	7.0	Tan, dry, very stiff clay with gravel & rock fragments (fill)	2	4.5	6.0	5	12	14	12
7.0	27.0	Tan, dry, , medium dense, micaceous silty sand (fill)	3	9.5	11.0	3	6	5	12
27.0	32.0	Tan, loose, clayey silt (fill)	4	14.5	16.0	3	3	6	12
32.0	60.0	Tan, dry, very dense to medium dense to very dense, micaceous silty sand with some rock fragments (decomposed to weathered rock)	5	19.5	21.0	5	4	7	10
60.0	70.0	Gray, medium to hard fractured rock	6	24.5	26.0	11	13	14	18
			7	29.5	31.0	3	2	3	8
			8	34.5	36.0	50/1			1
			9	39.5	41.0	3	4	5	8
			10	44.5	46.0	18	42	9	12
			11	49.5	51.0	25	9	9	18
		*Bottom 70.0 Ft.	12	54.5	56.0	8	9	24	7
		*Encountered water at 59.0 Ft.	13	59.5	61.0	50/1			1
			14	60.0	65.0	RQD	40%		51"
		*After 24 hours water 49 Ft., caved 51 Ft.	15	65.0	70.0	RQD	70%		60"

Water 49.0 Ft. at completion Caved 51.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-12
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/06/95
START:	07/06/95 END: 07/06/95	ELEVATION:	145.9
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	18.0	Brown, dry, very loose to loose, micaceous clayey silt with trace of roots & gravel (fill)	1	0	1.5	1	1	2	12"
18.0	32.0	Gray, damp, medium stiff, clay with trace of roots (fill)	2	4.5	6.0	3	4	6	10"
32.0	60.0	Tan, dry, dense to medium dense to dense, micaceous silty sand with trace of gravel (fill)	3	9.5	11.0	4	5	9	5"
60.0	68.0	Tan, wet, very dense, micaceous silty sand (decomposed rock)	4	14.5	16.0	3	3	3	4"
68.0	78.0	Gray, medium to hard, rock (6" quartz layer 70 Ft. to 70.5 Ft.)	5	19.5	21.0	2	2	5	12"
			6	24.5	26.0	3	4	4	18"
			7	29.5	31.0	3	5	5	18"
		WR&A Note: Gray clay has petroleum-like odor.	8	34.5	36.0	5	19	20	18"
			9	39.5	41.0	4	5	9	18"
			10	44.5	46.0	4	5	8	8"
			11	49.5	51.0	4	4	7	12"
			12	54.5	56.0	6	12	20	18"
		*Auger refusal 68 Ft.	13	59.5	61.0	9	17	17	6"
		*Encountered water at 50 Ft.	14	64.5	66.0	18	35	50/55	18"
		*At completion water at 15 Ft., caved 20 Ft.	15	68.0	73.0	RQD	50%	50%	54"
			16	73.0	78.0	RQD	63%	63%	60"

Water Dry after 24 hours Caved 26.0 Ft

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-13
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/11/95
START:	07/11/95 END: 07/12/95	ELEVATION:	147.9
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	19	Brown to gray, dry to wet, soft to very soft, silty clay with trace of brick & concrete fragments & small boulders (fill)	1	0	1.5	2	2	2	5"
19	33.0	Brownish gray, wet, very loose micaceous silty sand with trace of rock fragments (possible fill)	2	5.0	6.5	7	10	14	18"
33.0	50.5	Gray, medium very fractured rock.	3	10.0	11.5	6	7	4	18"
50.5	52.5		4	15.0	16.5	8	5	4	12"
52.5	60.5		5	20.0	21.5	8	6	8	8"
			6	25.0	26.5	5	7	5	5"
			7	30.0	31.5	10	8		5"
			8	35.0	35.5	51/5"		27	4"
		*No water encountered	9	40.0	41.5	17	41		12"
		*Void from 58.5 to 59.5 Ft.	10	45.0	45.2	51/3"			3"
		*Installed 2" well to 51.5 Ft.	11	50.0	50.1	51/2"			2"
		*Boring offset 6 Ft. west	12	50.5	55.5	RQD	15%		56"
		*Bottom 60.5 Ft.	13	55.5	60.5	RQD	6%		48"
		*Strong solvent odor at 10 Ft. WR&A Note: Also noticed odors.							
		*Hard grinding of augers 8 to 10.0 Ft.							

Water After 14 Hours Dry Caved (Inside Augers) Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-14
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/10/95
START:	07/10/95 END: 07/10/95	ELEVATION:	148.3
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	8.0	Brown, dry, soft, silty clay with trace of gravel	1	0	1.5	1	4	4	12"
8.0	30.5	Tan to whitish gray, dry, medium dense to very dense, silty sand (decomposed rock)	2	4.5	6.0	3	5	5	12"
30.5	40.5	Gray, medium to hard fractured rock	3	9.5	11.0	5	6	7	0"
			4	14.5	16.0	8	6	21	0"
			5	19.5	21.0	50	51/4		8"
			6	24.5	26.0	50/2			2"
			7	29.5	31.0	50/0			0"
			8	30.5	35.5	RQD	50%		58"
			9	35.5	40.5	RQD	33%		60"
		*Water at 21 Ft. caved 22 Ft.							
		*Auger refusal 30.5 Ft.							
		*No water encountered while drilling							
		*Bottom at 40.5 Ft.							

Water 20 Ft. at completion Caved 22.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-15
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/10/95
START:	07/10/95 END: 07/10/95	ELEVATION:	141.8
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	12.0	Tan, dry to loose to medium dense silty sand with trace of gravel (fill)	1	0	1.5	4	4	5	15"
12.0	23.5	Gray to tan, damp, medium stiff to soft clay with trace of gravel & brick fragments (fill)	2	4.5	6.0	2	3	2	17"
23.0	42.0	Reddish brown to tan, dry, medium dense to very dense, micaceous silty sand (decomposed rock)	3	9.5	11.0	8	11	4	18"
42.0	52.0	Gray, medium to hard, rock	4	14.5	16.0	3	3	3	12"
			5	19.5	21.0	2	2	3	18"
			6	24.5	26.0	3	14	9	18"
			7	29.5	31.0	10	9	6	18"
			8	34.5	36.0	36	50/6		12"
			9	39.5	41.0	45	50/3		9"
			10	42.0	47.0	RQD	61%		56"
		*No water encountered while augering	11	47.0	52.0	RQD	81%		60"
		*Auger refusal 42 Ft.							
		*Bottom at 52 Ft.							
		*After 24 hours, water at 33 Ft. caved at 34 Ft.							

Water 21 Ft. at completion Caved 41 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-16
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/03/95
START:	07/03/95 END: 07/03/95	ELEVATION:	143.6 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	4.0	Tan, dry, very loose, silty sand & wood fragments (fill)	1	0	1.5	1	1	2	12"
4.0	8.0	Brown, damp, stiff, silty clay with trace of brick fragments (fill)	2	4.5	6.0	5	5	8	12"
8.0	17.0	Brown, dry, loose, silty sand with trace of gravel (fill)	3	9.5	11.0	5	3	2	12"
17.0	22.0	Gray, moist, soft, clay (fill)	4	14.5	16.0	1	1	4	10"
22.0	27.0	Tan, dry, medium dense to dense, silty, sand, with trace of rock fragments (fill)	5	19.5	21.0	3	2	4	12"
27.0	53.5	Brown, dry, to wet, dense to very dense, micaceous silt, with trace of rock fragments (decomposed to weathered rock)	6	24.5	26.0	7	7	10	18"
53.5	63.5	Gray, medium to hard, rock	7	29.5	31.0	6	12	19	
			8	34.5	36.0	21	50/5"		
			9	39.5	40.4	36	50/5"		
			10	44.5	44.6	50/2"			1/2"
			11	49.5	49.6	50/2"			2"
			12	53.5	58.5	RQD	55%		60"
		*Encountered water at 46.0 Ft.	13	58.5	63.5	RQD	66%		60"
		*Auger refusal at 53.5 Ft.							

Water 11 Ft. After 24 hours (hard rain over night) Caved 12.5 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-17
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/05/95
START:	07/05/95 END: 07/05/95	ELEVATION:	142.7 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration				Rec/ Att
From	To		No.	From	To					
0	57.0	Brown to gray, moist to wet, very soft to hard to soft, clay with layers of silty sand & trace of gravel (fill - trace to a little wood & roots from 47 Ft. to 57 Ft.)	1	0	1.5	1	2	2		6"
57.0	63.5	Gray, dry, very dense silty sand & rock fragments (weathered rock)	2	4.5	6.0	5	6	8		12"
63.5	73.5	Gray, medium to hard, rock	3	9.5	11.0	5	2	2	3	6"
			4	14.5	16.0	1	3	4	4	6"
			5	19.5	21.0	4	3	5		8"
			6	24.5	26.0		5	5		6"
			7	29.5	31.0		14	14		16"
			8	34.5	36.0	1		16		8"
			9	39.5	41.0	6	6			5"
			10	44.5	46.0	2	2	10		12"
			11	49.5	51.0	12	3	3		12"
		*Bottom at 73.5 Ft.	12	54.5	56.0	5		14		6"
		*Encountered water at 18'8"	13	59.5	61.0	50/2				2"
		*Auger refusal at 63.5 Ft.	14	63.5	68.5	RQD	25%			60"
		*Hard augering 33 Ft. to 34 ft. and 61 Ft. to 63.5 Ft.	15	68.5	73.5	RQD	40%			55"

Water 13 Ft. After 24 hours Caved 16.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-18
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/03/95
START:	07/03/95 END: 07/04/95	ELEVATION:	136.3 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration				Rec/ Att
From	To		No.	From	To					
0	3.0	Tan, dry, very loose, silty sand (fill)	1	0	15.0	WOH/6	1	1		12"
3.0	13.0	Gray, damp, medium stiff clay with trace of brick fragments (fill)	2	4.5	60.0	3	4	4		12"
13.0	17.0	Tan & gray, dry, medium dense silty sand (fill)	3	9.5	11.0	3	3	5	3	18"
17.0	32.0	Gray to tan, damp, soft to very soft, silty clay, with trace of brick & rock fragments (fill)	4	14.5	16.0	4	9	7	4	12"
32.0	54.0	Brown, dry, medium dense to loose to very dense, micaceous silty sand with trace of rock fragments (decomposed to weathered rock)	5	19.5	21.0	3	3	4		12"
54.0	64.0	Gray, medium to hard, rock	6	24.5	26.0	12	11	50/2		15"
			7	29.5	31.0	2	2	1		12"
			8	34.5	36.0	6	6	10		16"
			9	39.5	41.0	3	3	3		3"
			10	44.5	46.0	8	21	50/4		11"
			11	49.5	51.0	4	4	6		2"
		*Bottom at Ft.	12	54.5	54.7	50/2				2"
		*At completion water at 44 Ft. Caved 46 Ft.	13	54.0	59.0	RQD	8%			52"
		*Auger refusal at Ft.	14	59.0	64.0	RQD	21%			60"
		*Hard augering (24 to 29 Ft.) (32 to 34 Ft.) (43.5 to 44.5 Ft.)								

Water 44 Ft. After 24 hours Caved 45.0 Ft. Sheet No. 1 of 1

:OM. X, II
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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-19
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/26/95
START:	06/26/95 END: 06/26/95	ELEVATION:	
DRILLER:	Jeff Stouffer	DRILL RIG:	CME 55

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	17	Brown, dry, loose to medium dense, silty sand with layers of clay (fill)	1	0	1.5	3	3	4	
17	38	Gray to tan, dry, medium stiff to very stiff, clay with traces of gravel (fill	2	4.5	6.0	3	9	7	
38	47	Tan, moist, medium stiff, silty clay (possible fill)	3	9.5	11.0	4	4	4	
47	53	Tan, dry, very dense, silty sand with trace of rock fragment (possible fill)	4	14.5	16.0	3	7	9	
53	60	Greenish gray, wet, very dense silty sand and rock fragments (weathered rock)	5	19.5	21.0	5	3	5	
60	70	Gray, hard rock	6	24.5	26.0	3	4	5	
			7	29.5	31.0	7	9	9	0"
			8	34.5	36.0	4	7	11	
			9	39.5	41.0	2	2	4	
		WR&A Note: Sample has petroleum product smell.	10	44.5	46.0	3	3	6	
			11	49.5	50.2	31	50/3"		
		*Hard augering from 47 Ft.	12	54.5	54.6	50/2"			2"
		*No water encountered	13	59.5	59.6	50/1"			1"
		*Bottom 70 Ft.	14	60.0	65.0	RQ	D	20 0/0	62"
			15	65.0	70.0	RQ	D	25 0/0	60"

Water_____ Caved _____ Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-20
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/28/95
START:	06/28/95 END: 06/28/95	ELEVATION:	14.5 Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2.5	Crushed rock (CRG)	1	0	1.5	3	8	13	11"
2.5	12.0	Light brown to brown, dry to moist, medium dense to loose, micaceous clayey silt (fill)	2	5	6.5	3	4	10	14"
12.0	26.0	Brown to reddish brown, dry, medium stiff to very stiff, clay with trace of gravel (fill)	3	10	11.5	4	4	5	12"
26.0	33.0	Brown, dry, dense to very dense, micaceous silty sand with trace of roots (fill)	4	15	16.5	5	4	4	11"
33.0	49.5	Brown, dry to wet, very dense, micaceous silty sand with rock fragments (decomposed to weathered rock)	5	20	21.5	23	11	17	16"
49.5	54.5	Brown to gray, soft to hard rock with layers of decomposed rock	6	25	26.5	49	19	22	14"
54.5	59.5	Gray,hard very fractured rock	7	30	30.3	51/4"			4"
			8	35	36.5	29	30	36	12"
			9	40	40.1	51/1"			1"
			10	45	45.5	100/6"			6"
			11	49.5	54.5	RQ	D	27%	47"
		*Auger refusal at Ft.	12	54.5	59.5	RQ	D	0%	60"
		*Encountered water at 37 Ft.							
		*Very hard grinding of augers from 37 Ft. to Ft.							
		*Bottom 59.5 Ft.							

Water 35' 3"

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-21
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/30/95
START:	06/30/95 END: 06/30/95	ELEVATION:	Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	13.0	Brown & red, moist, very soft to very stiff, silty clay with trace of roots & gravel (fill)	1	0	1.5	1	1	3	12"
13.0	42.5	Tan, dry to wet, medium dense to very dense, silty sand, decomposed rock	2	5.0	6.5	5	8	11	14"
42.5	52.5	Gray, medium hard rock	3	10.0	11.5	24	14	10	6"
			4	15.0	16.5	8	11	12	16"
			5	20.0	20.5	51/6"			6"
			6	25.0	26.2	6	25	5 2/3"	14"
			7	30.0	30.1	51/1"			0"
			8	35.0	35.0	51/0"			0"
			9	42.5	47.5	Run #1	RQD %	0/0	60"
			10	47.5	52.5	Run #2	RQD 100%		60"
		*Bottom 52.5 Ft.							
		*Two-inch monitoring well installed to 40 Ft.							
		*Encountered water at 33.0 Ft.							

Water _____ Caved ___Ft._____ Sheet No. ___1 of 1___

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-22
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/29/95
START:	06/29/95 END: 06/29/95	ELEVATION:	138.2 Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	9.0	Brown, dry, loose, micaceous silty sand (fill)	1	0	1.5	1	3		7"
9.0	24.0	Brown, damp, hard to very stiff to hard, silty clay, with a little rock fragments (fill)	2	5.0	6.5	4	6	4	8"
24.0	45.5	Brown, dry to wet, very dense, micaceous silty sand (decomposed to weathered rock)	3	10.0	11.5	30	23	4	4"
45.5	55.5	Gray medium to hard rock	4	15.0	16.5	12	8	14	13"
			5	20.0	21.5	30	24	9	4"
			6	25.0	26.5	24	29	19	11"
			7	30.0	30.0	51/0"		30	0"
			8	35.0	35.1	100/1"			0"
			9	40.0	40.0	51/0"			0"
			10	45.0	45.1	51/1.5"			1.5"
		*Bottom 55.5 Ft.	11	45.5	50.5	RQD	37%		48"
		*Slight to hard grinding of augers from 28 Ft. to 30 Ft. and 44 Ft. to 45.5 Ft.	12	50.5	55.5	RQD	83%		60"
		*Encountered water at 28.0 Ft.							
		*Auger refusal at 45.5 Ft.							
		*At completion water 22 Ft; Caved 44 Ft.							

Water _____ Caved ___Ft.___ Sheet No. ___1 of 1___

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-23
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/26/95
START:	06/26/95 END: 06/28/95	ELEVATION:	138.3 Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	13.0	Brown, dry, medium dense, micaceous, silty sand with clay layers (fill)	1	0	1.5	2	3	8	9"
13.0	23.0	Brown, dry, stiff, clay with trace of rock fragment & silty sand (fill)	2	5.0	6.5	12	8	6	14"
23.0	45.0	Reddish brown to brown, dry to wet, medium dense to very dense, micaceous silty sand, with rock fragments from 34.5 Ft. to 37 Ft. and 44 Ft. to 45 Ft. (decomposed to weathered rock)	3	10.0	11.5	3	2	5	16"
45.0	55.0	Gray & brown to gray, soft to hard rock	4	15.0	16.5	4	9	4	12"
			5	20.0	21.5	3	6	9	15"
			6	25.0	26.5	2	7	13	18"
			7	30.0	30.0	51/5"			5"
			8	35.0	35.1	74/1"			0"
			9	40.0	40.0	51/1"			1"
			10	45.0	45.0	51/0"			0"
		*Auger refusal 45 Ft.	11	45.0	50.0	RQD	20%		54"
		*Bottom 55 Ft.	12	50.0	55.0	RQD	88%		41"
		*Encountered water at 43.0 Ft.							

Water 33.4 Ft. Caved 44.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-24
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/05/95
START:	07/05/95 END: 07/05/95	ELEVATION:	138.7 Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	33.0	Brown & gray, damp, medium stiff to stiff, clay with trace of silty sand, gravel & brick fragment (fill)	1	0	1.50	2	4	6	18"
33.0	51.0	Tan to gray, medium dense to very dense, micaceous silty sand (decomposed to weathered rock)	2	5.0	6.5	4	6	7	18"
51.0	54.5	Gray, medium to hard rock	3	10.0	11.5	5	6	9	16"
			4	15.0	16.5	2	2	5	12"
			5	20.0	21.5	6	6	7	12"
			6	25.0	26.5	16	6	5	18"
			7	30.0	31.5	4	5	8	18"
			8	35.0	36.5	4	5	9	18"
		*Boring offset 7 Ft. north	9	40.0	40.0	51/0"			0"
		*Slight grinding of augers 39 Ft. to 42 Ft.	10	45.0	45.1	51/1"			1"
		*Auger refusal 51 Ft.	11	50.0	50.1	51/1"			1"
		*Bottom at 54.5 Ft.	12	51.0	54.5	RQD			28"
		*At completion water at 44 Ft. Caved 46 Ft.							
		*Core barrel locked up & broke off at 54.5 Ft.							
		*No water encountered							

Water 14' 5" After 24 hours Caved 14' 8" Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-25
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/06/95
START:	07/06/95 END: 07/07/95	ELEVATION:	136.2
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2.0	Brownish gray to gray, dry to wet, very loose, silty sand with some rock fragments & small boulders (fill)	1	0	1.5	3	6	7	12"
2.0	43.0	Gray, wet, loose to very dense, silty sand & rock fragments (decomposed to weathered rock)	2	5.0	6.5	5	7	13	18"
43.0	55.0	Brown, soft partially weathered rock	3	10.0	11.5	4	9	14	18"
55.0	65.0	Gray, medium to hard fractured, rock	4	15.0	16.5	10	8	13	3"
		Gray soft to medium hard fractured rock	5	20.0	21.5	8	7	7	18"
			6	25.0	26.5	7	10	14	18"
			7	30.0	31.5	7	9	14	8"
			8	35.0	36.5	14	12	12	18"
			9	40.0	41.5	20	10	13	12"
			10	45.0	46.5	20	30	32	16"
		*Installed 2" monitoring well to 54 Ft.	11	50.0	51.5	29	30	36	18"
		*Bottom at 65.0 Ft.	12	55.0	55.6	51/2"			0"
		*Boring offset 7 Ft. south	13	55.5	60.0	RQD	17%		60"
		*Encountered water at 45.5 Ft.	14	60.0	65.0	RQD	23%		50"

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-26
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	05/27/95
START:	05/27/95 END: 06/28/95	ELEVATION:	135.6 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	33.0	Brown to gray, damp, soft to very stiff, silty clay with trace of gravel and brick fragments (fill)	1	0	1.5	2	2	3	
33.0	39.0	Grayish tan, dry, medium dense, silty sand with gravel and rock fragments (fill)	2	4.5	6.0	5	11	8	
39.0	48.0	Greenish gray, dry, medium dense silty sand & rock fragments	3	9.5	11.0	2	6	8	
48.0	53.0	Tan, wet, medium dense, sand & gravel	4	14.5	16.0	4	6	10	
53.0	55.5	Gray, wet, very dense, weathered rock	5	19.5	21.0	3	6	8	
55.5	65.5	Gray, hard, rock	6	24.5	26.0	3	4	7	
			7	29.5	31.0	6	8	7	
			8	34.5	36.0	24	13	7	
			9	39.5	41.0	9	8	10	
			10	44.5	46.0	3	5	9	
			11	49.5	51.0	2	5	6	
		*Bottom 65.5 Ft.	12	54.5	56.0	50/2			
		*Encountered water at 50.0 Ft.	13	55.5	60.5	RQD	10%		53"
		*Hard augering 37 Ft. to 38 Ft.		60,5	65.5	RQD	81%		60"

Water 44.0 Ft. Caved 47.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-27
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	05/26/95
START:	05/26/95 END: 05/27/95	ELEVATION:	135.1 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	7.0	Brown to gray, damp, soft to very stiff, silty clay with trace of gravel and brick fragments (fill)	1	0	1.5	3	3	4	
7.0	12.0	Grayish tan, dry, medium dense, silty sand with gravel and rock fragments (fill)	2	4.5	6.0	3	3	3	
12.0	17.0	Greenish gray, dry, medium dense silty sand & rock fragments	3	9.5	11.0	4	6	13	
17.0	28.0	Tan, wet, medium dense, sand & gravel	4	14.5	16.0	3	6	6	
28.0	43.5	Gray, wet, very dense, weathered rock	5	19.5	21.0	3	5	9	
43.0	54.5	Gray, hard, rock	6	24.5	26.0	3	3	6	
54.5	64.5		7	29.5	31.0	9	9	13	
			8	34.5	36.0	7	5	13	
			9	39.5	41.0	4	9	8	
			10	44.5	46.0	10	31	36	
			11	49.5	51.0	4	8	8	
		*Bottom 64.5 Ft.	12	54.5	59.5	RQD	50%		60"
		*Encountered water at 50.0 Ft.	13	59.5	64.5	RQD	47%		60"
		*Auger refusal 54.5 Ft.							
		*After 24 hours, 38' 10", caved 39 Ft.							

Water 37.0 Ft. at completion Caved 44.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-28
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	05/29/95
START:	05/28/95 END: 05/29/95	ELEVATION:	134.8 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2.0	Crushed stone (CRG)	1	4.5	6.0	3	3	4	
2.0	37.0	Brown to gray to brown, dry, medium stiff to stiff, silty clay, with trace of asphalt & brick fragment (fill)	2	9.5	11.0	4	9	9	
37.0	50.5	Brown, dry to wet, medium dense to very dense, micaceous silty sand with rock fragments from 49 Ft. to 49.6 Ft. (Decomposed to weathered rock)	3	14.5	16.0	4	4	6	
50.5	60.5	Gray hard rock	4	19.5	21.0	2	4	5	
			5	24.5	26.0	4	5	6	
			6	29.5	31.0	3	4	6	
			7	34.5	36.0	5	5	7	
			8	39.5	41.0	5	9	13	
			9	44.5	46.0	50/6			
			10	49.5	51.0	50/2			
			11	50.5	55.5	RQD	50%		39"
		*Bottom 60.5 Ft.	12	55.5	60.5	RQD	41%		30"
		*Encountered water at 42.0 Ft.							
		*Auger refusal 50.5 Ft.							
		*After 24 hours, 42.5', caved 43 Ft.							

Water 43.0 Ft. at completion Caved 45.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-29
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/30/95
START:	06/30/95 END: 06/30/95	ELEVATION:	134.4 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	23.0	Brown & gray, dry to damp, medium stiff to stiff, to medium stiff, clay with layers of silty sand (fill)	1	0	1.5	3	3	4	12"
23.0	42.0	Tan, dry to wet, dense to very dense, micaceous silty sand (decomposed to weathered rock)	2	4.5	6.0	2	3	5	18"
42.0	52.0	Gray, medium to hard rock	3	9.5	11.0	3	5	8	18"
			4	14.5	16.0	2	2	4	14"
			5	19.5	21.0	4	9	12	18"
			6	21.5	26.0	10	18	20	18"
			7	29.5	31.0	15	50/5		11"
			8	34.5	36.0	50/6			6"
			9	39.5	41.0	13	50/5		9"
			10	42.0	42.1				
		*Auger refusal 42 Ft.	11	42.0	47.0	RQD	25%		1"
		*Bottom at Ft.	12	47.0	52.0	RQD	25%		54"
		*At completion water at 20 Ft. Caved 34 Ft.							60"
		*Encountered water at 40 Ft.							

Water 10.5 Ft. After 24 hours Caved 11 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-30
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/30/95
START:	06/29/95 END: 06/30/95	ELEVATION:	135.4 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	23.0	Brown, damp medium stiff to stiff, clay with layers of silty sand & rock fragment (fill)	1	0	1.5	2	3	4	5"
23.0	40.5	Gray to tan, very dense, micaceous silty sand with trace of rock fragment (decomposed to weathered rock)	2	4.5	6.0	3	5	5	6"
40.5	50.5	Gray, medium to hard rock	3	9.5	11.0	4	4	7	5"
			4	14.5	16.0	5	5	5	8"
			5	19.5	21.0	9	12	5	8"
			6	24.5	26.0	6	24	15	12"
			7	29.5	31.0	19	50/5	43	14"
			8	34.5	36.0	15	50/5		12"
			9	39.5	40.0	50/6			1"
			10	40.5	45.5	RQD	70%		54"
		*Auger refusal 40.5 Ft.	11	45.5	50.5	RQD	30%		62"
		*Bottom at 50.5 Ft.							
		*At completion water at 28 Ft. Caved 37 Ft.							

Water 31 Ft. After 24 hours Caved 35 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-31
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/29/95
START:	06/29/95 END: 06/29/95	ELEVATION:	136.5 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	12.5	Reddish brown to brown, dry to moist, medium stiff to stiff, clayey silt with trace of gravel & rock fragments (fill)	1	0	1.5	2	3	4	9"
			2	5	6.5	1	5	7	10"
			3	10	11.5	9	7	5	10"
		*Bottom 12.5 Ft.							
		*Hard grinding of augers 12 Ft. to 12.5 Ft.							
		*Auger refusal 12.5 Ft.							

Water Dry at completion

Caved 45.0 Ft.

Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-31A
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	06/29/95
START:	06/29/95 END: 06/29/95	ELEVATION:	Ft.
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	14.2	Reddish brown to brown, dry to moist, clayey silt with trace of gravel & rock fragments (fill)	1	14.2	15.2	19	19		4"
14.2	15.2	Rock & concrete							
		*Bottom 15.2 Ft.							
		*Hard grinding of augers 13 Ft. to 14.2 Ft.							
		*Auger refusal 14.2 Ft.							

Water Dry at completion Caved 45.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-31B
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/03/95
START:	07/03/95 END: 07/03/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	8.0	Tan, dry, micaceous silty sand	1	0	5.0	Auger Cut		6	6"
8.0	14.3	Tan, dry, micaceous silty sand with some gravel & small cobbles (fill)	2	5	10.0	Auger Cut		7	6"
14.3	15.8	Tan, dry, very dense silty clay & sand with gravel brick & rock fragments (fill)	3	14.3	15.8	40.0	33	56	12"
		*Auger refusal 14.3 Ft.							
		*Bottom at 15.8 Ft.							
		*Spoon glancing off below augers sample #3							
		*No water encountered							

Water Dry at completion Caved 11.0 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-32
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/17/95
START:	07/17/95 END: 07/17/95	ELEVATION:	146.3
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	9.5	Brown, dry, medium dense, silty sand, with trace of wood & brick fragments & boulders (fill)	1	0	1.5	4	5	8	18"
			2	5.0	6.5	4	6	10	10"
			3	9.0	9.5	15	51/1"		4"
		*No water encountered while drilling							
		*Auger refusal 37 Ft.							
		*Bottom at 42 Ft.							

Water Dry After 24 hours Caved 8 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-32A
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/17/95
START:	07/18/95 END: 07/18/95	ELEVATION:	145.3 (Approx.)
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	18.0	Tan to gray & tan, dry, soft t very stiff, silty clay (fill)	1	10.0	11.5	5	3	4	12"
18.0	38.5	Greenish tan to orangish tan, dry, medium dense to very dense, micaceous silty sand (decomposed rock)	2	15.0	16.5	7	8	10	6"
38.5	43.5	Gray, soft to medium, rock with soil lenses	3	20.0	21.5	8	11	12	10"
			4	25.0	26.5	9	12	18	12"
			5	30.0	31.5	25	35	50	18"
			6	35.0	36.4	10	10	51/5"	17"
			7	38.5	38.5	51/0"			0"
			8	38.5	43.5	RQD	10%	10%	44"
		*No water encountered while drilling							
		*Auger refusal 38.5 Ft.							
		*Bottom at 43.5 Ft.							
		*Installed 2" well to 37.5 Ft.							

Water Dry After 24 hours Caved 35 Ft. Sheet No. 1 of 1

GEOMATRIX, INC.
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-33
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/18/95
START:	07/18/95 END: 07/18/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	23.0	Tan, dry to damp, medium stiff to very soft, silty clay with trace of brick & concrete fragments (fill)	1	0	1.5	5	8	5	10"
23.0	37.0	Tan to tan & white, dry, very loose to very dense, micaceous silty sand (decomposed rock)	2	5.0	6.5	7	8	7	16"
37.0	42.0	Gray, medium to hard rock	3	10.0	11.5	7	9	6	10"
			4	15.0	16.5	3	5	5	4"
			5	20.0	21.5	2	2	2	18"
			6	25.0	26.5	1	1	14	18"
			7	30.0	31.5	3	6	12	18"
			8	35.0	36.5	45	42	46	18"
			9	37.0	42.0	RQD	70%		60"
		*No water encountered while drilling							
		*Auger refusal 37 Ft.							
		*Bottom at 42 Ft.							

Water Dry After 24 hours Caved 35 Ft. Sheet No. 1 of 1

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HYATTSVILLE, MD 20784
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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-34
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	07/19/95
START:	07/19/95 END: 07/19/95	ELEVATION:	145.9 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	23.0	Brown, dry to damp, medium stiff, silty clay with trace of rock fragments (fill)	1	0	1.5	4	4	4	6"
23.0	33.0	Tan, dry, very dense, micaceous silty sand (decomposed to weathered rock)	2	4.5	6.0	3	3	2	10"
33.0	38.0	Gray, medium to hard, rock	3	9.5	11.0	3	3	4	18"
			4	14.5	16.0	6	5	4	9"
			5	19.5	21.0	2	3	5	3"
			6	24.5	26.0	5	25	30	18"
			7	29.5	31.0	27	50/3		10"
			9	33	33.0	51/0"			0"
			10	33	38.0	RQD	73%		57"
		*Bottom 38.0 Ft.							
		*Auger refusal at 33.0 Ft.							
		*No water encountered while drilling							
		*After 24 hours, water at 17.5 Ft., caved at 19 Ft.							

Water 11 Ft. at completion Caved 16 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant	BORING NO.:	DC-47
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	02/17/95
START:	07/17/95 END: 07/17/95	ELEVATION:	144.7 Ft.
DRILLER:	Jeff Stouffer	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	22.0	Tan, dry, loose to medium dense to loose, silty sand (fill)	1	0	1.5	2	3	4	6
22.0	27.0	Tan, dry, stiff, silty clay (possible fill)	2	4.5	6.0	3	7	14	12
27.0	53.0	Tan, dry, medium dense to very dense to medium dense, silty sand with trace of rock fragments	3	9.5	11.0	3	8	5	10
53.0	58.0	Gray, soft rock with void from 54 Ft. to 55 Ft.	4	14.5	16.0	6	6	6	6
58.0	63.0	Gray, very soft weathered to decomposed rock	5	19.5	21.0	6	4	7	8
			6	24.5	26.0	6	5	14	12
			7	29.5	31.0	8	9	3	8
			8	34.5	36.0	10	10		7
			9	39.5	41.0	4	4	5	8
			10	44.5	46.0	10	9	9	16
			11	49.5	51.0	11	9	9	6
		*Bottom 63.0 Ft.	12	53.0	53.0	51/6"			0
		*Encountered water at 53.0 Ft.	13	53.0	58.0	RQD	25%		32"
			14	58.0	63.0	RQD	0%		9"
		*After 24 hours caved 45 Ft., dry							

Water 49.0 Ft. at completion Caved 51.0 Ft. Sheet No. 1 of 1

GEOMATRIX, INC.
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PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant - Phase II	BORING NO.:	SWM-1
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	10/2/95
START:	10/2/95 END: 10/2/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2	Brow, dry medium stiff silty clay with trace of sand (fill)	1	0	1.5	1	3	6	6"
2	14	Tan, dry, medium dense sand with trace of clay and gravel and trace of brick fragments (fill)	2	2.5	4.0	5	6	5	8"
14	44	Brown to gray to tan, dry, medium dense to dense, clayey sand, (with trace of roots and trace of silt((fill)	3	5.0	6.5	4	8	6	10"
44	54	Grayish tan to tan, wet to dry, loose to very dense, micaceous silty sand (decomposed rock)	4	10.0	11.4	5	11	51/4"	12"
			5	15.0	16.5	30	6	9	12"
			6	20.0	21.5	9	13	18	16"
			7	25.0	26.5	12	9	14	18"
			8	30.0	31.5	10	10	12	10"
			9	35.0	36.5	7	10	12	18"
		WR&A Note: Odors from 15 feet to 20 feet depth.	10	40.0	40.6	30	51/1"		5"
			11	45.0	46.5	4	3	4	18"
		*Strong petroleum odor on Sample No. 5	12	50.0	50.3	51/4"			3"
		*Encountered water at 45 Ft.	13	54.0	54.1	51/1"			1"
		*Bottom 54.0 Ft.							

Water Dry after 48 Hours

GEOMATRIX, INC.
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant - Phase II	BORING NO.:	SWM-2
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	10/2/95
START:	10/2/95 END: 10/2/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	2	Brow, dry soft, silty clay (fill)	1	0	1.5	2	2	3	7"
2	4.5	Tan, dry, medium dense, silty sand (fill)	2	2.5	4.0	5	5	6	16"
4.5	3544	Brown and gray, dry, very stiff to stiff to very stiff clay with a little roots, brick and asphalt fragments and trace of sand (fill)	3	5.0	6.5	3	6	10	18"
			4	10.0	11.5	5	7	7	18"
			5	15.0	16.5	6	10	14	18"
			6	20.0	21.5	1	5	7	14"
			7	25.0	26.5	14	7	7	18"
			8	30.0	31.5	10	13	15	18"
			9	35.0	35.2	51/3"			1"
		*Hit obstruction at 35.0 Ft.							
		*No water encountered							
		*Bottom 35.0 Ft.							

Water 31.5 Ft. after 48 Hours Caved Dry Sheet No. 1 of 1

GEOMATRIX, INC.
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
PHONE (301) 306-9677 FAX (301) 306-9632

BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant - Phase II	BORING NO.:	SWM-3
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	10/3/95
START:	10/3/95 END: 10/3/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	7.0	Brown to tan, dry, loose to dense, silty sand with trace of gravel (fill)	1	0	1.5	1	4	6	8"
7.0	38.0	Brown, dry to moist, stiff to very stiff to medium stiff, silty clay with trace of roots and brick fragments (fill)	2	2.5	4.0	10	12	13	12"
38.0	43.0	Gray, dry, medium dense, silty sand (possible fill)	3	5.0	6.5	32	24	12	14"
43.0	49.0	Tan, dry, dense, micaceous silty sand with trace of rock fragments	4	10.0	11.5	4	4	7	10"
			5	15.0	16.5	4	5	7	12"
			6	20.0	21.5	4	4	12	12"
			7	25.0	26.5	4	12	13	12"
			8	30.0	31.5	2	2	5	12"
			9	35.0	36.4	4	4	51/4"	16"
			10	40.0	41.5	6	11	12	10"
			11	45.0	46.5	6	17	19	18"
		*No water encountered	12	49.0	49.0	51/0"			0"
		*Auger refusal 49.0 Ft.							
		*Bottom 49.0 Ft.							

Water Dry after 24 Hours Caved 41 Ft. Sheet No. 1 of 1

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BORING REPORT

PROJECT:	Dalecarlia Water Treatment Plant - Phase II	BORING NO.:	SWM-3A
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	10/3/95
START:	10/3/95 END: 10/3/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration			Rec/ Att
From	To		No.	From	To				
0	11.0	Tan to brown, dry, stiff clay with trace of sand & gravel (fill)	1	7.5	9.0	7	7	8	10"
		*No water encountered							
		*Bottom 11 Ft.							

Water Dry after 24 Hours Caved 9.5 Ft. Sheet No. 1 of 1

GEOMATRIX, INC.
7050 CHESAPEAKE ROAD, SUITE 205
HYATTSVILLE, MD 20784
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BORING REPORT

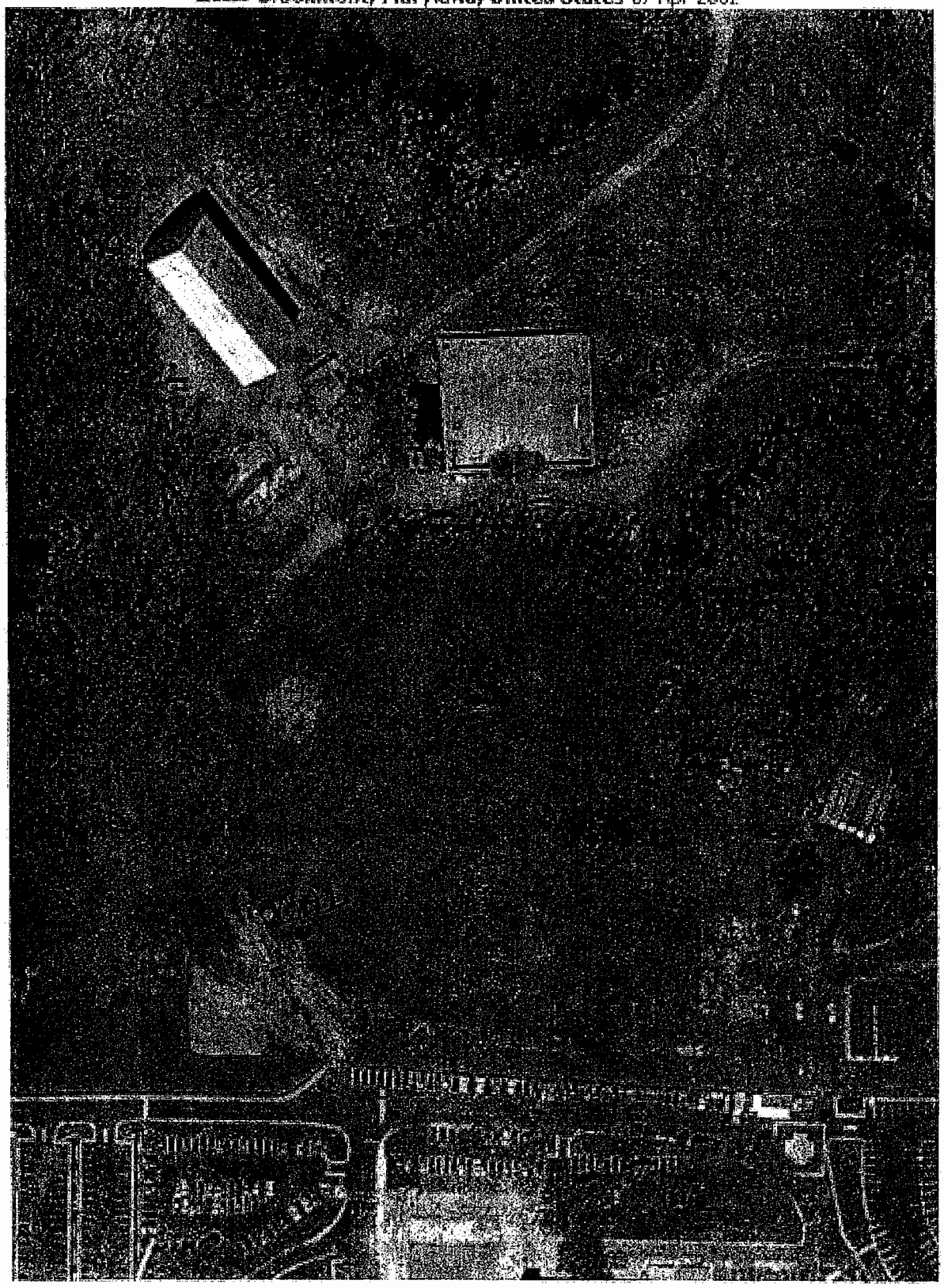
PROJECT:	Dalecarlia Water Treatment Plant - Phase II	BORING NO.:	SWM-4
LOCATION:	5900 Mac Arthur Blvd., Brookmount, MD	DATE:	10/3/95
START:	10/3/95 END: 10/3/95	ELEVATION:	
DRILLER:	Paul Suit	DRILL RIG:	

Depth (In Ft.)		Soil Description	Sample (In Ft.)			Blows / 6" Penetration				Rec/ Att
From	To		No.	From	To					
0	7.0	Brown, dry, loose to medium dense, clayey sand (fill)	1	0	1.5	3	4	6		10"
7.0	12.0	Tan, dry, stiff, clayey silt with trace of sand (fill)	2	2.5	4.0	9	10	10		14"
12.0	15.0	Tan, dry, medium dense, micaceous silt	3	5.0	6.5	6	9	9		10"
15.0	18.0	Orangish tan, dry, dense, coarse sand & gravel (fill)	4	10.0	11.5	4	7	8		14"
18.0	35.5	Gray, dry to damp, very stiff to stiff, silty clay, with trace of roots & concrete fragments (fill)	5	12.0	14.00	100 psi *	→→ *	→→ *	200 psi *	24"
			6	15.0	16.5	8	20	18		10"
			7	20.0	21.5	7	10	13		12"
			8	25.0	26.5	1	5	8		10"
			9	30.0	31.5	5	5	6		18"
			10	35.0	35.2	51/3"				3"
		*No water encountered								
		*Auger refusal 49.0 Ft.								
		*Bottom 49.0 Ft.								

Water Dry after 24 Hours Caved 33 Ft. Sheet No. 1 of 1

* Pushed Shelby Tube Feed Pressure in psi

USGS **Brookmont, Maryland, United States** 07 Apr 2002



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DRILLING LOG

DIVISION	NAD
INSTALLATION	Baltimore District
SHEET	1 OF SHEETS
1. PROJECT	Residuals Processing Facility
2. LOCATION (Coordinates or Station)	Washington D.C.
3. DRILLING AGENCY	CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number)	WA-1
5. NAME OF DRILLER	Albert McNamara
6. DIRECTION OF HOLE	☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	
10. SIZE AND TYPE OF BIT	3¼" HSA / NQ wireline
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
12. MANUFACTURER'S DESIGNATION OF DRILL	ADII Acker
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8 / UNDISTURBED Ø
14. TOTAL NUMBER CORE BOXES	
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED 2/17/55 / COMPLETED 3/1 /05
17. ELEVATION TOP OF HOLE	
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	William J. Mervis

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–5		Brown Gravel with Clayey SAND - DRY	45	J-1	Hole was drilled using ADII Acker with 3¼" "Hollow Stem Augers. Standard Penetration Test conducted with 140 lb. manual hammer with 30" drop driving 1⅜" split-spoon. Blow Count conducted in 0.5' intervals For a Total 2.0' per Sample interval. Rock Cored using NQ Wireline.
			Brown & Red Clayey SAND with Gravel - DRY	75 / 55	J-2	
			Brown & Red Clayey SAND with Gravel - DRY	43	J-3	
			BROWN Micaous Sandy CLAY with Saprolite Inclusions - DRY	70 / 57	J-4	
	10–12		1.2' Brown Silty SAND - DRY	80	J-5	
			0.6' Disintegrated Rock Sample - DRY			
			0.2' Brown Silty Clay - Dry - Asphalt in Shoe			
	15–17		Brown Micaous Silty SAND with Clay - Relic Structure Present - Dry	100	J-6	

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	P_E P_{TH}	BLOW COUNT	Penetrometer
1	0.0–0.9	20-6-7-16	–
2	1.1–2.6	"	3.0 2.0 1.5
3	5.0–5.9	7-6-9-9	–
4	5.9–7.0	"	–
5	10.0–12.0	3-3-3-4	0.5– 1.0– 0.5–
6	15.0–17.0	5-8-10-15	1.0– 2.0– 1.5
7	20.0–21.9	12-21-40-100/0.4	–
8	250–255	100/05'	–

WATER INFO
ENCOUNTER – NOT ENCOUNTERED
COMPLETE – 27.3'
24HR – 27.51
INTRODUCE – 25.5'
BAILED – 27.3'

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-1

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore D.S District | SHEET 2 OF SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		Brown Micaous Saprolite - Dry	95	J-7	
	22					
	23					
	24					
	25		Brown Micaous Saprolite-Dry	100	J-8	
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

Run From To Cored Rec +/- % RQD

1	25.5'	28.5'	3.0'	2.0'	-1.0'	67
2	28.5'	30.9'	2.4'	1.6'	-0.8'	67
3	30.9'	35.9'	5.0'	4.7'	-0.3'	94

.43
.50
.52

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

Hole No. WA-2

DRILLING LOG | DIVISION: NAD | INSTALLATION: Baltimore District | SHEET 1 OF 3 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON D.C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-2
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 50.0'
8. DEPTH DRILLED INTO ROCK: 12.0'
9. TOTAL DEPTH OF HOLE: 62.0'
10. SIZE AND TYPE OF BIT: 3¼" HSA / HQ W2 RELENG
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 750 (SWAMP BUGGY)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12 | UNDISTURBED
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3/3/05 | COMPLETED 3/15/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. Guerrero

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	1		Dark Brown Silty Clay with organics - Moist	20	J-1	Hole was drilled with CME 750 using 3¼" Hollow Stem Augers. Standard Penetration Test conducted using 140 lb manual hammer with 2.5' drop, driving 1⅜" split spoon. Blow Count Conducted in 0.5' intervals, for a total of 2.0' per Sample interval. Rock Cored using HQ wireline.
	2					
	3		Brick Frags in cuttings			
	4					
	5		Dark Brown Silty Clay with stone, Brick & Black clays Moist	55	J-2	**PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL**
	6					
	7					
	8		Brick Frags in cuttings			
	9					
	10					
	11		Interchanging layers of Dark Brown Clay with Brick & Stone, WITH Stone & Asphalt Frozen	65	J-3	
	12					
	13					
	14					
	15					
	16		Light Brown & Orangish Brown Micaous Clay - relic structure shoe touch into material Saprolite Damp	70	J-4	
	17					
	18					
	19					

JAR	DEPTH	BLOW COUNT	PENETRATION METER
1	0.0 - 2.0	2-2-3-3	1.0 C- 0-
2	5.0 - 7.0	4-5-7-9	1.0- 1.0 1.25-
3	10.0 - 12.0	5-20-28-33	-
4	15.0 - 17.0	13-8-9-24	1.0 0.35 1.25-
5	20.0 - 21.7	6-4-7-3	0.5 0.5 0.5
6	21.7 - 22.6	11	
7	25.0 - 27.0	19-7-3-4	0.5 0.35 0-
8	30.0 - 31.3	3-3-5-5	1.0- 0-
9	31.3 - 32.0	11	-
10	35.0 - 36.5	5-13-20-27	1.0 0.25 0-
11	36.5 - 37.6	11	
12	40.0 - 41.4	22-61-100/0.4	

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT: Residual Processing Facility | HOLE NO. WA-2

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-2

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		Brown Clay w/ Grass MOIST	85	J-5	
			TAN Micaous SAND with Stone Frags - DRY	160. 15	J-6	
	22					
	23					
	24					
	25					
			Brown Clay with Stone Frags			
	26		Boulder - Gray Stone - 25.5'-26.1'	80	J-7	
			WET			
	27					
	28					PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL
	29					
	30		Brown Clay with SAND	65	J-8	
	31		WET	100		
			Brown & Red SANDY CLAY with Rock Frags - MOIST	35	J-9	
	32					
	33					
	34					
	35		Dark Gray Micaous Silt - DAMP	75	J-10	
	36			100		
			Reddish Brown Micaous Fine SAND (Saprolitic) - DAMP	25	J-11	
	37					
	38					
	39					
	40		TAN, ORANGE & Brown Micaous Saprolite (Iron Staining in Hands) - DAMP	100	J-12	
	41					
	42					
	43					

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-2

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	45					Run From To Cored Rec +/- % RQD
	46					1 50.0' 52.4' 2.4' 0.9' -1.5 38 '17
	47					2 52.4' 57.4' 5.0' 3.4' -1.6 68 '38
	48					3 57.4' 62.0' 4.8' 5.2' +0.4 104 '51
	49					
	50		Runs 1 - Loss Throughout. Run 2 - Loss at Top.		Run 1	
	51		Brown - Fine Grained, Micaous Saprolite - Moderately Hard - Hard, Fractures ⊥, 60° & 45° to Core length. All Faces above 55.0' show moderate weathering.	38	Box 1	
	52					
	53				Run 2	
	54				Box 1	
	55			68		
	56					WATER INFO
	57					ENCOUNTER - 26.0'
	58		Gray Gneiss - Hard, Fine Grained, Micaous. WEATHERED zones with Loss @ 57.8' - 58.5' & 60.8' - 61.0', Fractures are 30° & 60° to Core length		Run 3	Complete - 34.7'
	59					24 HR - 32.2'
	60			104	Box 1	INTRUDED - 41.4'
	61					
	62		BOH - 62.0'			PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

DRILLING LOG

DIVISION: NAD

INSTALLATION: Baltimore District

SHEET 1 OF 2 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): Washington, D.C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-3
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 42.0
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 42.0
10. SIZE AND TYPE OF BIT: 3¼" HSA / NQ WIRELINE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 750 (SWAMP BUGGY)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 13; UNDISTURBED Ø
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3/3/05; COMPLETED 3/14/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J Meredith

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–1		Park Brown Clay with Roots, Micaous – Moist	70	J-1	Hole was drilled with CME 750 using 3¼" Hollow Stem Augers. Standard penetration test conducted using 140 lb. manual hammer, with 2.5' drops, split spoon size 1⅜". Blow Count conducted in 0.5' intervals, for a total 2.0' per sample intervval. Rock Cored using NQ wireline. Roller bit used to advance Sampling after Boulder cored.
	2–4					
	5		PARK Brown Micaous Clay with Roots & Brick Frags – moist	70	J-2	
	6		Brown Micaous Clay with Roots – DAMP	35	J-3	
	7			30		
	8–9					
	10		Park Brown Clay with Stone & Brick Frags – moist	50	J-4	
	11		Red Brick with Layer of Asphalt inbetween – Dry	100	J-5	
	12			50		
	13–14					
	15		Park Brown Clay with Brick Frags – Moist	40	J-6	
	16		TAN MICAOUS Saprolite & white Gneiss Frags – Dry	100	J-7	
	17			60		
	18–19					
	20					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	DEPTH	BLOW COUNT	Pene-tro-meter
1	0.0 – 2.0	1-1-1-2	1.0 0– 1.0
2	5.0 – 6.6	2-7-14-9	1.0 0.5 1.0
3	6.6 – 20	11	–
4	10.0 – 11.0	10-10-6-14	1.0 1.0 1.0
5	11.0 – 12.0	11	–
6	15.0 – 15.9	10-50-55-13	0.5 0.5 0.5
7	15.9 – 17.0	11	–
8	20.0 – 20.2	100/0.2'	–
9	26.8 – 28.8	3-5-9-10	3.0– 3.0 1.0
10	30.0 – 31.5	2-3-10-12	3.5 3.5 1.0
11	31.5 – 32.0	11	–
12	35.0 – 37.0	1-2-5-21	–
13	40.0 – 42.0	3-5-6-9	–

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-3

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			Brown weathered Saprolite - Dry	100	J-8	EZ-MUD INTRODUCED AT 20.2'. WATER & Roller bit used in Place of augering For remainder of hole.
	21		Gray, Fine Grained, Hard Gneiss Loss Throughout Run - Weathered Fractures - L & 60° to core length	40	Run 1 Box 1	
	22					
	23				Run 2	
	24		No Recovery - Run 2	0		
	25					
	26					
	27		Red, Brown, Micaeous, Silty Clay with Black Grs -	52	J-9	
	28		DAMP			
	29					WATER INFO
	30		TAN & Orangish Brown SANDY CLAY	95	J-10	ENCOUNTER - NOT Encountered during drilling
	31		- DAMP	100		Complete - 31.5'
			Black Rock Frags - WET	25	J-11	INTRODUCED - 20.2'
	32					24HR - 16.7'
	33					Between completion & The 24HR Reading - IT RAINED HEAVILY & SNOWED.
	34					
	35		Light Brown Micaeous Clayey SAND - Smells Like Moth balls	2	J-12	
	36		- WET			
	37					
	38					
	39					
	40					
	41		Gray SANDY SILT - Smells Like Moth balls	100	J-13	
	42		WET			
			B.O.H. ~ 42.0'			

Run	From	To	Cored Rec	+/-	%	RQD
1	20.2	21.8	1.6	0.7	-0.9	40
2	21.8	26.8	5.0	0	-5.0	0

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

DRILLING LOG

DIVISION: NAD

INSTALLATION: Baltimore District

SHEET 1 OF 3 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON, D.C.
3. DRILLING AGENCY: CENAP-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-4
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 40.8
8. DEPTH DRILLED INTO ROCK: 21.4
9. TOTAL DEPTH OF HOLE: 62.2
10. SIZE AND TYPE OF BIT: 3¼" HSA / NQ WIRELINE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL:
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3/3/05; COMPLETED 3/10/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. Merrill

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–1		Dark Brown Silty Clay with Trace Brick Frags - Frozen - MOIST	75	J-1	Hole was drilled using CME 750 with 3¼" Hollow Stem Augers. Standard Penetration Test conducted using 140lb. manual hammer with 2.5' drop, driving 1⅜" split spoon. Blow Count conducted in 0.5' intervals for a Total of 2.0' per sample interval. Rock cored using NQ.
	1–2					
	2–3					
	3–4					
	4–5					
	5–6		Dark Brown Silty Clay trans. into Orangish Brown Micaous Silty Clay with Stone Chips - MOIST	90	J-2	
	6–7					
	7–8					
	8–9					
	9–10					
	10–11		Dark Brown Clay with Brick-Stone Frags & Black Dots - MOIST	85	J-3	
	11–12		weathered Tan Saprolitic (Micaous) - Dry	65 / 15	J-4	
	12–13					
	13–14					
	14–15					
	15–16		0.4' Dark Brown Clay with Trace Brick Frags - MOIST 0.2' Tanish Brown Silty Clay with Mica - DAMP	30	J-5	
	16–17					
	17–18					
	18–19					
	19–20					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	DEPTH	BLOW COUNT	Pocket Pen. — Tsf
1	0.0–2.0	2-2-3-4	0.25 1.0 1.0
2	3.0–5.0	3-4-8-11	2.0 1.0 1.0
3	10.0–11.50	3-3-4-5	—
4	11.5–12.0	"	—
5	15.0–17.0	6-8-9-8	1.0 1.0 1.0
6	20.0–21.0	4-4-5-13	0.5 0.5
7	21.0–22.0	"	—
8	25.0–27.0	6-7-9-15	—
9	30.0–32.0	10-15-17-22	—
10	35.0–37.0	12-14-22-29	—
11	40.0–40.8	71-100/0.3	3.5 4.5 Break

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT: Resid. Fac. [illegible]

HOLE NO. WA-4

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE — Hole No. WA-4

PROJECT: Residuals Processing Facility — INSTALLATION: Baltimore District — SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		Brown Clay - MOIST	50 / 100	J-6	
	22		Brown Stratified Micaous Clayey SAND - DAMP	50	J-7	
	23					
	24					
	25					
	26		Light Brown Stratified Micaous Sandy Silt - with Iron Staining DAMP	30	J-8	
	27					
	28					
	29					
	30					
	31		Dry	100	J-9	
	32					
	33					
	34					
	35					
	36		Dry	100	J-10	
	37					
	38					
	39					
	40		Brown Micaous Silty Clay - (Disintegrated Saprolite) Dry	100	J-11	WATER INFO ENCOUNTER - Not Determine Complete - 35.91 24 HR - 36.2 INTRODUCE - 41.0
	41		NO RECOVERY	0	RUN 1 BOX 1	
	42					
	43		Brown, Very Soft, Very Weathered Saprolite, Micaous with Iron Staining on Fractures. No organized Fracture Angles.	68	RUN 2 BOX 1	

Run	From	To	Cored	Rec.	+/-	%	RQD
1	41.0	42.1	1.1	-0-	-1.1	0	0
2	42.1	45.2	3.1	2.1	-1.0	68	38
3	45.2	49.2	2.0	0.2	-1.8	10	0
4	49.2	50.0	2.8	-0-	-2.8	0	0
5	50.0	52.2	2.2	0.1	-2.1	5	0
6	52.2	55.2	2.0	1.5	-0.5	75	0

Run	From	To	Cored	Rec.	+/-	%	RQD
7	55.2	57.2	2.0	1.0	-1.0	50	0
8	57.2	62.2	5.0	4.2	-0.8	84	60

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-4

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	45			68	Run 2 Box 1	
	46		Brown, Soft, Very Weathered Saprolite, Micaous, Fine Grained	10	Run 3 Box 1	
	47					
	48		No Recovery	0	Run 4 Box 1	
	49					
	50					
	51		Brown-Reddish Brown, Hard, Very Weathered Saprolite. Micaous, Friable, Fractures 1 & 60° to Core Length - Spin offs Common.	5	Run 5 Box 1	
	52					
	53			75	Run 6 Box 1	
	54					
	55					PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL
	56		Brown, Moderately Weathered GNEISS, Hard, Micaous, Fractures ⊥ to 60° to Core length. Spinoffs Common.	50	Run 7 Box 1	
	57					
	58					
	59			84	Run 8 Box 1	
	60					
	61					
	62					
	63		B.O.H. - 62.2'			

DRILLING LOG

DIVISION: NAD

INSTALLATION: Baltimore District

SHEET 1 OF 1 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON, D.C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-4A
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 20.5'
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 20.5'
10. SIZE AND TYPE OF BIT: 3¼" HSA-
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: CME-550
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 0 UNDISTURBED: 1
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3-15-05 COMPLETED 3-15-05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. Merrick

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	2					Hole was drilled using CME 550 with 3¼" Hollow Stem Augers. Hole was cleaned out using 3" split spoon. Shelby was pushed using Rig hydraulics.
	4					
	6					
	8					
	10					
	12		Shelby crushed 3 times trying for Recovery. 3rd tube has 0.9' recovery. It is crushed as well			
	14					
	16					
	18		Shelby ↑ 18.5' ↓ 20.5'			
	20		B.O.H. - 20.5'			
	22					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT: Residuals Facility

HOLE NO.: WA-4A

DRILLING LOG

DIVISION: NAD
INSTALLATION: Baltimore District
SHEET: OF SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON, D.C.
3. DRILLING AGENCY: CENAB - GN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-5
5. NAME OF DRILLER: Albert McNamara
6. DIRECTION OF HOLE: [x] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 16.5
8. DEPTH DRILLED INTO ROCK: 24.4
9. TOTAL DEPTH OF HOLE: 40.9
10. SIZE AND TYPE OF BIT: 3 7/8" HSA / NQ wireline
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: AD II ACKER
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 2/17/05; COMPLETED 2/21/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William O. Murray

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	1		Brown Silty SAND with Gravel - Filter Cloth @ 0.3' DRY	75	J-1	Hole drilled with AD II Acker using 3 1/4" Hollow Stem Augers. Standard Penetration Test conducted using 140 lb. manual hammer with 2.5' drops driving 1 3/8" split spoon. Blow count conducted in 0.5' intervals, for a total 2.0' per sample interval. Rock cored using NQ wireline through augers.
	2					
	3					
	4					
	5		Brown & white Micaous Silty SAND with Black rust Veins DRY	100	J-2	PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL
	6					
	7					
	8					
	9					
	10		Brown, White, Yellow & Orange Micaous Silty SAND	100	J-3	
	11					
	12					
	13					
	14					
	15		Brown, White, Orange Micaous Saprolite with Iron-ite Layers Dry	100	J-4	
	16					
	17		NO RECOVERY	0	RUN 1 Box 1	
	18					
	19		BROWN & WHITE MICAOUS Saprolite-DRY	100	J-5	
			NO RECOVERY	0	RUN 2 Box 1	

JAR	DEPTH	BLOW COUNT	Pene-tro-Meter
1	0.0-2.0	13-15-22-11	-
2	5.0-7.0	9-11-11-17	2.0-1.5-1.0-
3	10.0-12.0	18-21-26-41	4.0-2.5-3.0-
4	15.0-16.5	55-92-100/0.5	1.0-1.0-1.0-
5	18.8-19.2	100/0.4	-

WATER INFO
Encounter - 18.8'
Complete - 32.9
24 hr - 35.0'
INTRODUCED - 16.5'
BAILED - 33.1'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: Residuals Facility
HOLE NO.: WA-5

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE — Hole No. WA-5

PROJECT: Residuals Processing Facility — INSTALLATION: Baltimore district — SHEET 2 OF SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		NO RECOVERY	0	Run 2 Box 1	
	22		NO RECOVERY	0	Run 3 Box 1	
	23					
	24		Light Brown Saprolite, Soft, Micaous - Loss of Rock Throughout Run, Rock Span on Left at Fractures FRACTURES ⊥ to Core length	52	Run 4 Box 1	
	25					
	26				Run 5	
	27		Same as Run 4 - Slightly Larger Pieces Recovered.	27	Box 1	
	28					
	29			69	Run 6 Box 1	
	30		Loss at Top of Rock. Top 0.5' of Rec. Core. Brown Saprolite (Micaous, Soft) Remainder of Core Gray Hard Gneiss. Fractures Mostly ⊥ to core.			
	31			62	Run 7 Box 1	
	32					
	33		33.4' weathered Fracture.			
	34		Hard, Gray, Gneiss with weathered Fractures. Loss at top of Run Fractures are ⊥ or 60° to core length	115	Run 8 Box 1	
	35					
	36					
	37		Dark Gray, Hard Gneiss Weathered Fracture top 1.0' of Run & Last 1.0' of Run. Fractures in between are Nonweathered & ⊥ to core length	94	Run 9 Box 1	
	38					
	39					
	40					
	41		B.O.H. - 40.9'			
	42					
	43					

Run	From	To	Cored	Rec	+/-	%	RQD
1	16.5	18.8	2.3	0.0	-2.3	0	0
2	19.2	20.9	1.7	0.0	-1.7	0	0
3	20.9	23.9	3.6	6.0	-3.0	6	0
4	23.9	25.8	1.9	1.0	-0.9	52	0
5	25.8	28.9	3.1	0.9	-2.2	27	0
6	28.9	30.2	1.3	2.3	-0.4	69	0
7	30.2	33.9	3.7	2.3	-1.4	62	.37
8	33.9	35.9	2.0	2.3	+0.3	115	.42

Run	From	To	Cored	Rec	+/-	%	RQD
9	35.9	40.9	5.0	4.7	-0.3	94	.57

PRELIMINARY
INSPECTOR'S LOG
CLASSIFICATION
NOT FINAL

DRILLING LOG	DIVISION: NAD	INSTALLATION: Baltimore District	SHEET 1 OF 3 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON, D.C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-6
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 31.1
8. DEPTH DRILLED INTO ROCK: 21.5
9. TOTAL DEPTH OF HOLE: 52.6'
10. SIZE AND TYPE OF BIT: 3¼" HSA / NQ WIRELINE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: ADII ACKER
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7; UNDISTURBED Ø
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 2/18/05; COMPLETED 2/23/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. McNamara

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f
	0–1		0.0'-1.7' #57 Stone with Mixed Brown Soil - Dry	100	J-1
	1–2		1.7-2.0' Brown Clay - MOIST		
	2–5				
	5–7		Brown SANDY SILT - DRY	45	J-2
	7–10				
	10–12		Brown Micaous Silt - Dry	75	J-3
	12–15				
	15–16		Brown Micaous Silt - Relic Structuring - Thinly Bedded. Dry	100	J-4
	16–19				

REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)

Hole was drilled using ADII Acker with 3¼" Hollow Stem Augers. Standard Penetration Test counts were conducted using 140 lb. manual hammer with 2.5' drop driving 1⅜" split spoon. Blow Counts Taken in 0.5' intervals for a total of 2.0' per sample interval. Rock cored using NQ wireline.

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	DEPTH	BLOW COUNT	Penetrometer
1	0.0-2.0	35-69-40-25	—
2	5.0-7.0	6-3-4-4	0.5 0.5 —
3	10.0-12.0	4-5-6-8	0.5 0.5 0.5
4	15.0-17.0	5-4-2-3	0 0 0
5	20.0-22.0	58-80-65-89	+4.5 +4.5 +4.5
6	25.0-25.8	87-10"/0.3'	+4.5 +4.5 +4.5
7	30.5-31.1	83-12"/0.1'	—
8			

WATER INFO
ENCOUNTER - 35.2'
Complete — 35.2'
24 HR - 25.2'
INTRODUCE - 31.1'

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-6

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		(Saprolite) Tan-Micaceous Silt with iron staining & Relic structuring - DRY	100	J-5	
	22					
	23					
	24					
	25		SAME AS J-5	100	J-6	
	26					
	27					
	28					
	29					
	30					
	31		SAME AS J-5	100	J-7	
	32		DARK BROWN, WEATHERED Saprolite, Very Soft, Micaceous. Rust staining, Loss Through out RUN	52	Run 1 Box 1	
	33					
	34					
	35			26	Run 2 Box 1	
	36					
	37					
	38					
	39		NO RECOVERY	6	Run 3 Box 1	
	40					
	41		Rock Becomes Hard Throughout Run 4. Fractures @ 30° & 60° to core length. No clay along Fr	65	Run 4 Box 1	
	42					
	43			100	Run 5 Box 1	

RUN	FROM	TO	Cored	Rec	+/-	%	RQD
1	31.1'	33.4'	2.3'	1.2'	-1.1'	52	.15
2	33.4'	37.7'	4.3'	1.1'	-3.2'	26	.29
3	37.7'	40.0'	2.3	0.0	-2.3	0	0
4	40.0'	42.3'	2.3	1.5	-0.8	65	0
5	42.3'	45.3'	3.0'	3.0'	-0-	100	.28

RUN	FROM	TO	Cored	Rec	+/-	%	RQD
6	45.3'	49.2'	3.9'	2.9'	-1.0'	74	.32
7	49.2'	50.9'	1.7'	1.7	-0-	100	0
8	50.9'	52.6'	1.7	1.7'	-0-	100	.25

PRELIMINARY
INSPECTOR'S LOG
CLASSIFICATION
NOT FINAL

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-6

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	45			100	Run 5 Box 4	
	46		Dark Brown - Dark Gray Weathered Saprolite. Hard, Micaous. Fractures are ⊥ & 30°&60° to core length. Fracture Faces are weathered & rust colored.	74	Run 6 Box 4	
	47					
	48					
	49			100	Run 7 Box 1	
	50					
	51			100	Run 8 Box 1	
	52					
	53		B.O.H. -52.6'			
	54					
	55					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) GPO 1980 OF-628-603

PROJECT: Residuals Facility | HOLE NO. WA-6

Hole No.

DRILLING LOG	DIVISION NAD	INSTALLATION Baltimore District	SHEET 1 OF 2 SHEETS

1. PROJECT Residuals Processing Facility	10. SIZE AND TYPE OF BIT 3¼" HSA / NQ WIRELINE
2. LOCATION (Coordinates or Station) WASHINGTON, D.C.	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY CENAB-EN-GGE	12. MANUFACTURER'S DESIGNATION OF DRILL Acker
4. HOLE NO. (As shown on drawing title and file number) WA-7	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED 9 — UNDISTURBED Ø
5. NAME OF DRILLER McNamara	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
	16. DATE HOLE — STARTED 2/24/05 — COMPLETED 2/24/05
7. THICKNESS OF OVERBURDEN 42.0	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE 42.0	19. SIGNATURE OF INSPECTOR William J. Merritt

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–2		Brown Clay with Grass, & Roots WET	15	J-1	Hole was drilled with Acker using 3¼" Hollow Stem Augers. Standard Penetration Test conducted using 140 lb. manual hammer with 2.5' drop, driving 1⅜" split spoon. Blow count conducted in 0.5' intervals for a total. Rock was cored using NQ wireline.
	2–5					
	5–7		Brown Silty Clay MOIST	15	J-2	
	7–10					
	10–17		Brown Micaous Clay with Rock & Brick FRAGS MOIST	50	J-3	
	12–15					
	15–17		MOIST	70	J-4	
	17–20					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	DEPTH	BLOW COUNT	PENETROMETER
1	0.0 – 2.0	4-5-7-12	–
2	5.0 – 7.0	6-6-8-8	0.5 0.5
3	10.0 – 12.0	4-5-5-6	1.25 1.5 0.5
4	15.0 – 17.0	2-3-2-4	0.75 0.5 0–
5	20.0 – 22.0	6-9-8-7	1.0 1.0 0.5
6	25.0 – 27.0	7-5-18-15	0.5 0.5 0–
7	30.0 – 32.0	2-3-6-10	0.5 0– 0–
8	35.0 – 37.0	3-10-20-40	+4.5 +4.5 +4.5
9	40.0 – 42.0	15-38-52-76	+4.5 ++

WATER INFO

ENCOUNTERED · NOT ENCOUNTERED

COMPLETE - NONE

24 hrs - 38.2' - after snow storm

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT [illegible] HOLE NO. WA-7

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-7

PROJECT: Residuals Processing Facility | INSTALLATION: Baltimore District | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	21		Gray & Brown Disintegrated Rock with Rock Frags - MOIST	100	J-5	
	22					
	23					
	24					
	25		Green, Gray, Brown, Orange Micaous Silty Clay with BLACK & White Weathered Rock Frags - MOIST	100	J-6	
	26					
	27					
	28					
	29					
	30		BLACK & White Sandy Clay	100	J-7	
	31		Dry			
	32					
	33					
	34					
	35		White & Brown SANDY SILT	100	J-8	
	36		Micaous with Relic Structuring - Dry			
	37					
	38					
	39					
	40		Brown, Orange, Gray, White	100	J-9	
	41		Micaous SANDY SILT,			
	42		Rust Staining - DRY			
			B.O.H. - 42.0'			
	43					

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

Hole No. WA-7A

DRILLING LOG

DIVISION: NAD

INSTALLATION: Baltimore District

SHEET 1 OF 1 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON D. C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-7A
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 32.0
8. DEPTH DRILLED INTO ROCK: —
9. TOTAL DEPTH OF HOLE: 32.0
10. SIZE AND TYPE OF BIT: 3¼" HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: ACKER
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: 0; UNDISTURBED: 1
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3/11/05; COMPLETED 3/11/05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. Merrill

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	5					Hole was drilled using ACKER RIG with 3¼" Hollow STEM Augers. Hole cleaned out with 3" split spoon. Shelby pushed using Rig hydraulics. Hole back Filled afterwards.
	10					
	15					
	20					
	25					
	30		30.0-32.0 Shelby	90	1	
	35		B.O.H. - 32.0'			

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT: Resid. Fac.

HOLE NO. WA-7A

DRILLING LOG

DIVISION: NAD

INSTALLATION: Baltimore District

SHEET 1 OF 1 SHEETS

1. PROJECT: Residuals Processing Facility
2. LOCATION (Coordinates or Station): WASHINGTON, D.C.
3. DRILLING AGENCY: CENAB-EN-GGE
4. HOLE NO. (As shown on drawing title and file number): WA-7B
5. NAME OF DRILLER: McNamara
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 32.0'
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 32.0'
10. SIZE AND TYPE OF BIT: 3¼" HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL):
12. MANUFACTURER'S DESIGNATION OF DRILL: ADII ACKER
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED Ø; UNDISTURBED 1
14. TOTAL NUMBER CORE BOXES:
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED 3-16-05; COMPLETED 3-16-05
17. ELEVATION TOP OF HOLE:
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: William J. Merritt

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	5					Hole was drilled with Acker using 3¼" Hollow Stem Augers.
	10					Hole prepared by driving 3" splitspoon 28.5'-29.0'.
	15					Shelby was pushed using Rig hydraulics.
	20					
	25					
	30		Shelby 29.0'-32.0'		1	
	35		B.O.H. - 32.0'			

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

DRILLING LOG	DIVISION NAD	INSTALLATION Baltimore District	SHEET 1 OF 3 SHEETS

1. PROJECT Residuals Processing Facility	10. SIZE AND TYPE OF BIT 3¼ HSA / NQ wireline
2. LOCATION (Coordinates or Station) Washington, D.C.	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY CENAB-EN-GGE	12. MANUFACTURER'S DESIGNATION OF DRILL AD II ACKER
4. HOLE NO. (As shown on drawing title and file number) WA-8	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED: — UNDISTURBED: Ø
5. NAME OF DRILLER Albert McNamara	14. TOTAL NUMBER CORE BOXES 1
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
	16. DATE HOLE — STARTED 2/17/05 — COMPLETED 2/26/05
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE 59.6'	19. SIGNATURE OF INSPECTOR William J. Merritt / WS Sgt

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–2		Brown Sandy Clay with Gravel & Brick Fragments DAMP	100	J-1	Hole was drilled with Acker using 3¼" Hollow Stem Augers. Standard Penetration Test conducted using 140 lb. manual hammer with 25' drops driving 1⅜" Splitspoon. Blow Count taken in 0.5' intervals for a total 2.0' per sample interval. Rock cored using NQ wireline, UXO Maged in overburden.
	5		5.0-5.1 Brown Clay w Brick & Stem Frags WET	100	J-2	
	6–12		5.1-12.0' - Slow Drilling, Augers turn up Concrete & Brick Frags. Not able to Drive Samples Between Depths			
	10		10.0 - Concrete Frags - Not able to Drive Sample			
	12–14		Brown Sandy Clay with Gravel MOIST	50	J-3	
	15–17		Brown Sandy Clay with Gravel & Brick Frag MOIST	50	J-4	

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

JAR	DEPTH	BLOW COUNT	Penetrometer
1	0.0-2.0	8-16-8-7	—
2	5.0-5.1	100/0.1	—
3	12.0-14.0	4-6-8-10	—
4	15.0-17.0	7-6-6-9	0.5 0.5 0.5
5	20.0-22.0	100/0.3-19-17-10	—
6	25.0-27.0	35-12-14-10	—
7	30.0-32.0	25-15-18-8	—
8	35.0-37.0	19-15-8-6	0.5 0.5 0
9	40-41.4	18-60-100/0.4	3.0 3.0 3.0
10	47.0-49.0	2-2-2-3	0 0 0
11	50.5-51.1	76-50/0.1'	—

WATER INFO
ENCOUNTER - NOT ENCOUNTERED
COMPLETE - NOT TAKEN
24 HR -
INTRODUCED - 41.4'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT Residuals Facility — HOLE NO. WA-8

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. WA-8

PROJECT: Residuals Processing Plant | INSTALLATION: Baltimore District | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
—	21		Brown Clayey SAND with Rock Frags (GNEISS?) — DRY	95	J-5	
	22					
	23					
	24					
	25		0.7' Brown Micaous Silty SAND w/ Gray Saprolite - Dry	55	J-6	
	26		0.4' Solid			
	27					
	28					
	29					
	30		Brown Silty SAND with Gray & Brown Saprolite Frags - Dry	45	J-7	
	31					
	32					
	33					
	34					
	35		Brown Micaous Clay - DAMP	100	J-8	
	36					
	37					
	38					
	39					
	40		Brown Micaous Clay with Disintegrated Rock - DAMP	100	J-9	
	41					
	42		GNEISS, MEDIUM GRAINED, WEAKLY WEATHERED, HARD RUMBLE RECOVERY.	12%	RUN 1 BOX 1	PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL
	43					

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) GPO 1980 OF-628-603

PROJECT: Residuals Facility | HOLE NO. WA-8

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | **Hole No.** WA-8

PROJECT RESIDUALS PROCESSING PLANT | INSTALLATION BALTIMORE DISTRICT | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	44.0					
	46.0					
	48.0		Light Brown Silty Clay - WET	100	J-10	
	50.0					
			Brown Orange Silty SAND - Micaous - WET	100	J-11	
	52.0					
	54.0		MICACEOUS GNEISS, MEDIUM GRAINED, WEATHERED, HARD ORANGISH BROWN TO DARK GRAY FRACTURES: IRREGULAR, UNEVEN OPEN WEATHERED LOW DIPPING. 52.1, 52.15, 52.2, 52.25, 52.30, 52.35, 52.40, 52.5, 52.6, 52.7, 52.8, 52.9, 52.95, 53.0, 53.05, 53.15, 53.2, 53.5, 54.2, 54.3, 54.4, 54.45, 54.5, 54.55, 54.70, 54.8, 54.9, 55.1, 55.4, 55.5, 55.7	97%	RUN 2 BOX 1	
	56.0		MICACEOUS GNEISS, MEDIUM GRAINED, HARD FRESH, MEDIUM GRAY. FRACTURES IRREGULAR, UNEVEN OPEN WEAKLY WEATHERED 56.3, 56.9, 57.1, 57.8, 58.0, 58.55, 59.2, 59.6	100%	RUN 3 BOX 1	
	58.0					
	60.0		EOH - 59.6'			

RUN	FROM	TO	CORED	REC	(+/-)	%	RQD	PIEZES
1	41.4	44.4	3.0	.5	(.25)	12%	0	—
2	52.1	55.8	3.7	3.6	(.1)	97%	.19	.7
3	55.8	59.6	3.8	3.8	0	100%	.89	.5, .6, .3, .5, .5, .7, .3

PRELIMINARY INSPECTOR'S LOG CLASSIFICATION NOT FINAL

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) GPO 1980 OF-628-603 | PROJECT RESIDUALS PROCESSING PLANT | HOLE NO. WA-8

INTERSECTION TURNING MOVEMENT COUNT REPORTS

O.R. George & Associates, Inc.

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

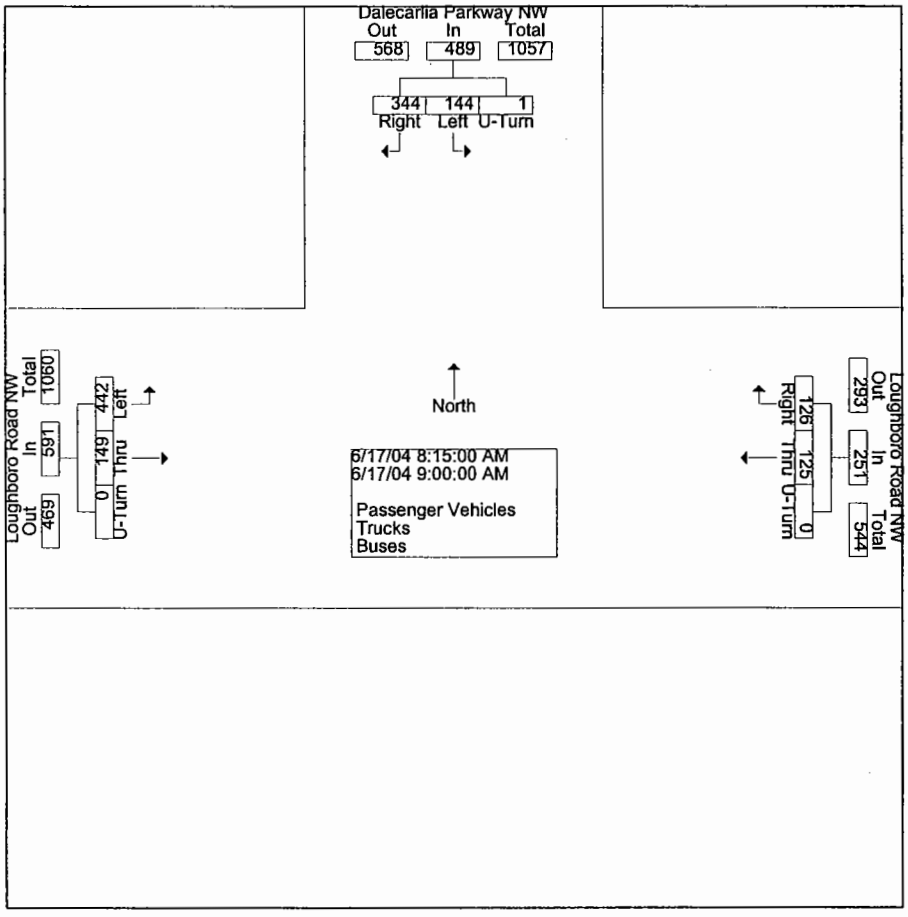
	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	19	58	0	77	18	23	0	41	47	35	0	82	200
07:30 AM	27	73	0	100	21	37	0	58	75	39	0	114	272
07:45 AM	32	82	0	114	22	26	0	48	67	36	0	103	265
08:00 AM	42	95	0	137	32	32	0	64	89	53	0	142	343
Total	120	308	0	428	93	118	0	211	278	163	0	441	1080
08:15 AM	38	77	0	115	38	26	0	64	96	35	0	131	310
08:30 AM	26	86	1	113	39	33	0	72	105	40	0	145	330
08:45 AM	47	83	0	130	22	31	0	53	114	39	0	153	336
09:00 AM	33	98	0	131	26	36	0	62	127	35	0	162	355
Total	144	344	1	489	125	126	0	251	442	149	0	591	1331
04:15 PM	29	102	1	132	35	35	0	70	85	26	0	111	313
04:30 PM	33	101	0	134	42	36	0	78	73	20	0	93	305
04:45 PM	32	130	1	163	37	45	0	82	72	28	0	100	345
05:00 PM	27	99	0	126	25	46	0	71	80	28	0	108	305
Total	121	432	2	555	139	162	0	301	310	102	0	412	1268
05:15 PM	19	120	0	139	45	37	0	82	62	25	0	87	308
05:30 PM	28	126	0	154	37	49	0	86	49	26	0	75	315
05:45 PM	37	142	0	179	33	38	0	71	68	18	0	86	336
06:00 PM	28	142	0	170	32	51	0	83	79	14	0	93	346
Total	112	530	0	642	147	175	0	322	258	83	0	341	1305
Grand Total	497	1614	3	2114	504	581	0	1085	1288	497	0	1785	4984
Apprch %	23.5	76.3	0.1		46.5	53.5	0.0		72.2	27.8	0.0		
Total %	10.0	32.4	0.1	42.4	10.1	11.7	0.0	21.8	25.8	10.0	0.0	35.8	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 2

	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1													
Intersection 08:15 AM													
Volume	144	344	1	489	125	126	0	251	442	149	0	591	1331
Percent	29.4	70.3	0.2		49.8	50.2	0.0		74.8	25.2	0.0		
09:00 Volume	33	98	0	131	26	36	0	62	127	35	0	162	355
Peak Factor													0.937
High Int. 09:00 AM					08:30 AM				09:00 AM				
Volume	33	98	0	131	39	33	0	72	127	35	0	162	
Peak Factor				0.933				0.872				0.912	

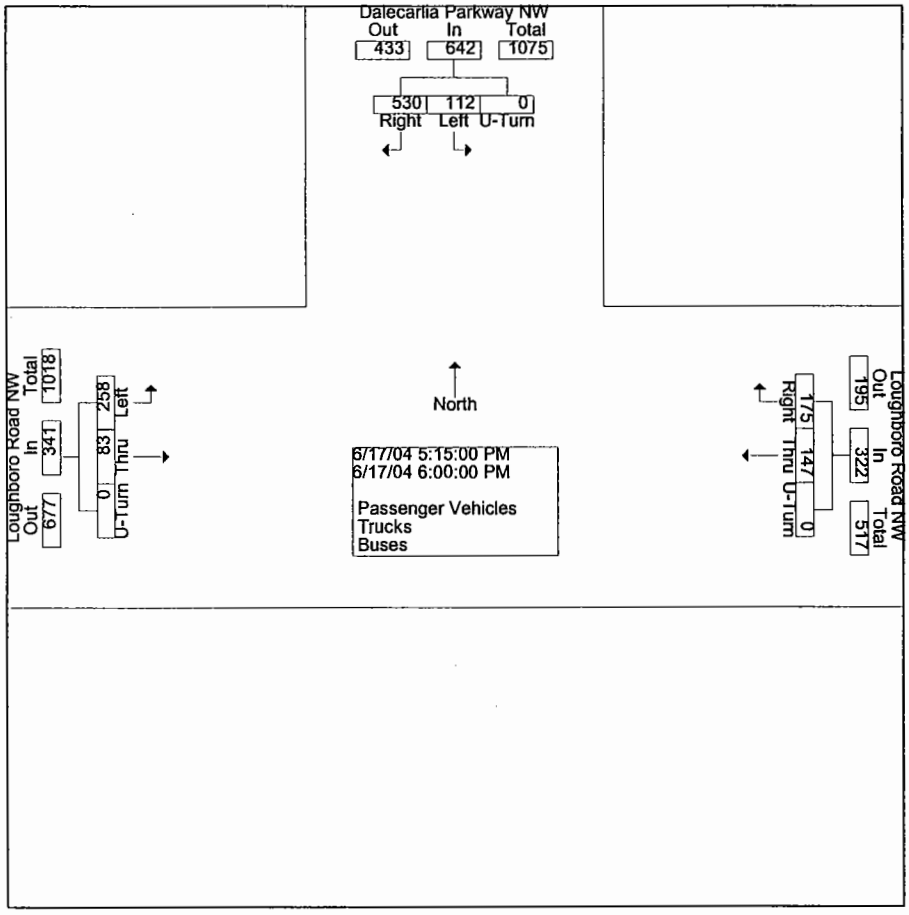


O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 3

	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1													
Intersection 05:15 PM													
Volume	112	530	0	642	147	175	0	322	258	83	0	341	1305
Percent	17.4	82.6	0.0		45.7	54.3	0.0		75.7	24.3	0.0		
06:00 Volume	28	142	0	170	32	51	0	83	79	14	0	93	346
Peak Factor													0.943
High Int.	05:45 PM				05:30 PM				06:00 PM				
Volume	37	142	0	179	37	49	0	86	79	14	0	93	
Peak Factor				0.897				0.936				0.917	



O.R. George & Associates, Inc.
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Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 1

Groups Printed- Passenger Vehicles

	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	18	58	0	76	17	22	0	39	43	35	0	78	193
07:30 AM	27	72	0	99	20	37	0	57	72	39	0	111	267
07:45 AM	31	77	0	108	21	25	0	46	65	36	0	101	255
08:00 AM	40	95	0	135	31	30	0	61	85	53	0	138	334
Total	116	302	0	418	89	114	0	203	265	163	0	428	1049
08:15 AM	37	74	0	111	37	25	0	62	90	35	0	125	298
08:30 AM	26	84	1	111	38	33	0	71	103	39	0	142	324
08:45 AM	46	81	0	127	21	31	0	52	113	37	0	150	329
09:00 AM	32	96	0	128	24	35	0	59	122	35	0	157	344
Total	141	335	1	477	120	124	0	244	428	146	0	574	1295
04:15 PM	29	101	1	131	35	34	0	69	83	26	0	109	309
04:30 PM	32	100	0	132	41	34	0	75	70	20	0	90	297
04:45 PM	32	130	1	163	34	42	0	76	70	28	0	98	337
05:00 PM	27	98	0	125	23	46	0	69	77	27	0	104	298
Total	120	429	2	551	133	156	0	289	300	101	0	401	1241
05:15 PM	19	118	0	137	45	35	0	80	61	25	0	86	303
05:30 PM	28	125	0	153	37	47	0	84	48	26	0	74	311
05:45 PM	37	142	0	179	31	37	0	68	65	18	0	83	330
06:00 PM	28	142	0	170	31	51	0	82	75	14	0	89	341
Total	112	527	0	639	144	170	0	314	249	83	0	332	1285
Grand Total	489	1593	3	2085	486	564	0	1050	1242	493	0	1735	4870
Apprch %	23.5	76.4	0.1		46.3	53.7	0.0		71.6	28.4	0.0		
Total %	10.0	32.7	0.1	42.8	10.0	11.6	0.0	21.6	25.5	10.1	0.0	35.6	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 1

Groups Printed- Trucks

	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	1	0	0	1	0	1	0	1	1	0	0	1	3
07:30 AM	0	1	0	1	0	0	0	0	1	0	0	1	2
07:45 AM	1	4	0	5	0	0	0	0	2	0	0	2	7
08:00 AM	2	0	0	2	1	2	0	3	0	0	0	0	5
Total	4	5	0	9	1	3	0	4	4	0	0	4	17
08:15 AM	1	2	0	3	0	1	0	1	1	0	0	1	5
08:30 AM	0	2	0	2	0	0	0	0	0	1	0	1	3
08:45 AM	1	2	0	3	0	0	0	0	0	0	0	0	3
09:00 AM	1	2	0	3	2	1	0	3	3	0	0	3	9
Total	3	8	0	11	2	2	0	4	4	1	0	5	20
04:15 PM	0	1	0	1	0	1	0	1	1	0	0	1	3
04:30 PM	1	1	0	2	0	2	0	2	1	0	0	1	5
04:45 PM	0	0	0	0	2	1	0	3	2	0	0	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	2	0	3	2	4	0	6	4	1	0	5	14
05:15 PM	0	2	0	2	0	2	0	2	0	0	0	0	4
05:30 PM	0	1	0	1	0	2	0	2	0	0	0	0	3
05:45 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
06:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	3	0	3	0	5	0	5	3	0	0	3	11
Grand Total	8	18	0	26	5	14	0	19	15	2	0	17	62
Apprch %	30.8	69.2	0.0		26.3	73.7	0.0		88.2	11.8	0.0		
Total %	12.9	29.0	0.0	41.9	8.1	22.6	0.0	30.6	24.2	3.2	0.0	27.4	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-AL
Board :D4-1576
City/County:Washington DC
Weather , :Warm/Clear/Dry

File Name : LOU@DEC
Site Code : 46231576
Start Date : 06/17/2004
Page No : 1

Groups Printed- Buses

	Dalecarlia Parkway NW From North				Loughboro Road NW From East				Loughboro Road NW From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	0	0	0	0	1	0	0	1	3	0	0	3	4
07:30 AM	0	0	0	0	1	0	0	1	2	0	0	2	3
07:45 AM	0	1	0	1	1	1	0	2	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	4	0	0	4	4
Total	0	1	0	1	3	1	0	4	9	0	0	9	14
08:15 AM	0	1	0	1	1	0	0	1	5	0	0	5	7
08:30 AM	0	0	0	0	1	0	0	1	2	0	0	2	3
08:45 AM	0	0	0	0	1	0	0	1	1	2	0	3	4
09:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	1	0	1	3	0	0	3	10	2	0	12	16
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	1	0	0	1	2	0	0	2	3
04:45 PM	0	0	0	0	1	2	0	3	0	0	0	0	3
05:00 PM	0	1	0	1	2	0	0	2	3	0	0	3	6
Total	0	1	0	1	4	2	0	6	6	0	0	6	13
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
05:45 PM	0	0	0	0	2	0	0	2	2	0	0	2	4
06:00 PM	0	0	0	0	1	0	0	1	2	0	0	2	3
Total	0	0	0	0	3	0	0	3	6	0	0	6	9
Grand Total	0	3	0	3	13	3	0	16	31	2	0	33	52
Apprch %	0.0	100.0	0.0		81.3	18.8	0.0		93.9	6.1	0.0		
Total %	0.0	5.8	0.0	5.8	25.0	5.8	0.0	30.8	59.6	3.8	0.0	63.5	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-MO
Board : D4-2239
City/County: Washington DC
Weather : Hot/Clear/Dry

File Name : LOU@SIB
Site Code : 45242239
Start Date : 06/17/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

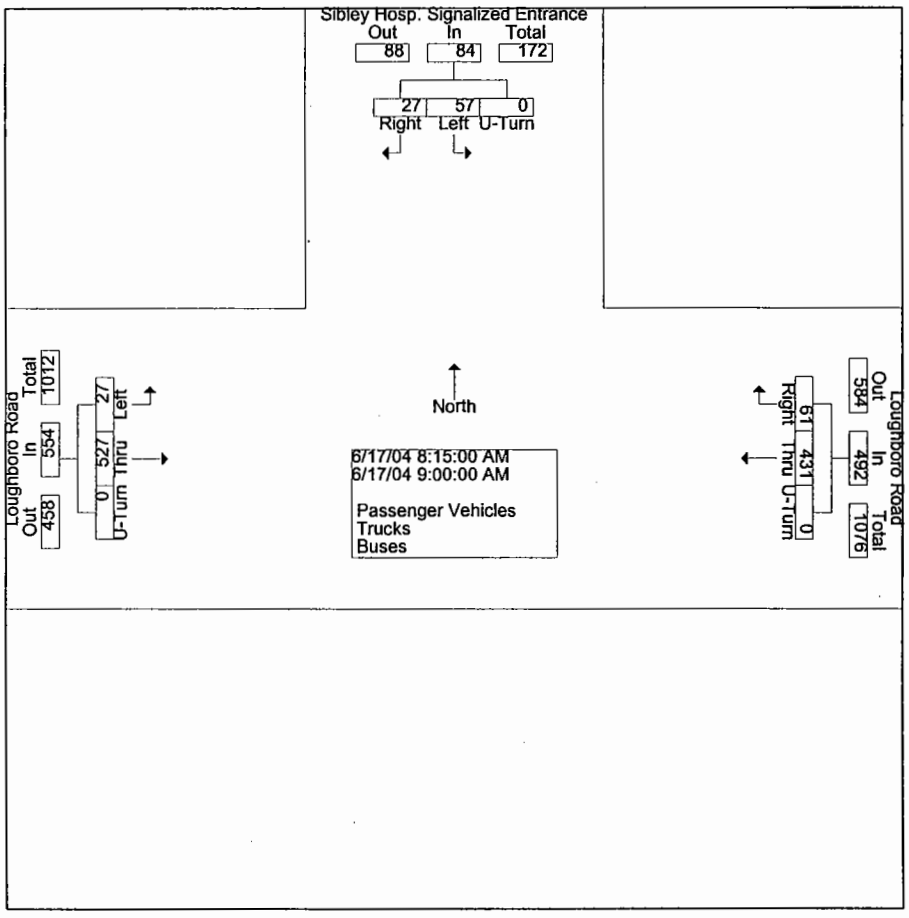
	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	14	4	0	18	62	11	0	73	13	71	0	84	175
07:30 AM	13	4	0	17	72	22	0	94	20	97	0	117	228
07:45 AM	20	10	0	30	94	22	0	116	15	96	0	111	257
08:00 AM	21	5	0	26	105	17	0	122	8	115	0	123	271
Total	68	23	0	91	333	72	0	405	56	379	0	435	931
08:15 AM	20	4	0	24	110	15	0	125	10	113	0	123	272
08:30 AM	12	10	0	22	109	20	0	129	4	122	0	126	277
08:45 AM	16	9	0	25	89	15	0	104	7	136	0	143	272
09:00 AM	9	4	0	13	123	11	0	134	6	156	0	162	309
Total	57	27	0	84	431	61	0	492	27	527	0	554	1130
04:15 PM	20	8	0	28	130	17	0	147	9	84	0	93	268
04:30 PM	18	8	0	26	128	15	0	143	6	77	0	83	252
04:45 PM	20	11	0	31	156	12	0	168	3	81	0	84	283
05:00 PM	10	13	0	23	119	8	0	127	6	100	0	106	256
Total	68	40	0	108	533	52	0	585	24	342	0	366	1059
05:15 PM	12	6	0	18	135	14	0	149	7	81	0	88	255
05:30 PM	12	10	0	22	153	10	0	163	5	66	0	71	256
05:45 PM	17	2	0	19	166	12	0	178	4	69	0	73	270
06:00 PM	10	6	0	16	163	17	0	180	5	93	0	98	294
Total	51	24	0	75	617	53	0	670	21	309	0	330	1075
Grand Total	244	114	0	358	1914	238	0	2152	128	1557	0	1685	4195
Apprch %	68.2	31.8	0.0		88.9	11.1	0.0		7.6	92.4	0.0		
Total %	5.8	2.7	0.0	8.5	45.6	5.7	0.0	51.3	3.1	37.1	0.0	40.2	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-MO
Board : D4-2239
City/County: Washington DC
Weather : Hot/Clear/Dry

File Name : LOU@SIB
Site Code : 45242239
Start Date : 06/17/2004
Page No : 2

	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1													
Intersection 08:15 AM													
Volume	57	27	0	84	431	61	0	492	27	527	0	554	1130
Percent	67.9	32.1	0.0		87.6	12.4	0.0		4.9	95.1	0.0		
09:00 Volume	9	4	0	13	123	11	0	134	6	156	0	162	309
Peak Factor													0.914
High Int. 08:45 AM					09:00 AM				09:00 AM				
Volume	16	9	0	25	123	11	0	134	6	156	0	162	
Peak Factor				0.840				0.918				0.855	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

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File Name : LOU@SIB
Site Code : 45242239
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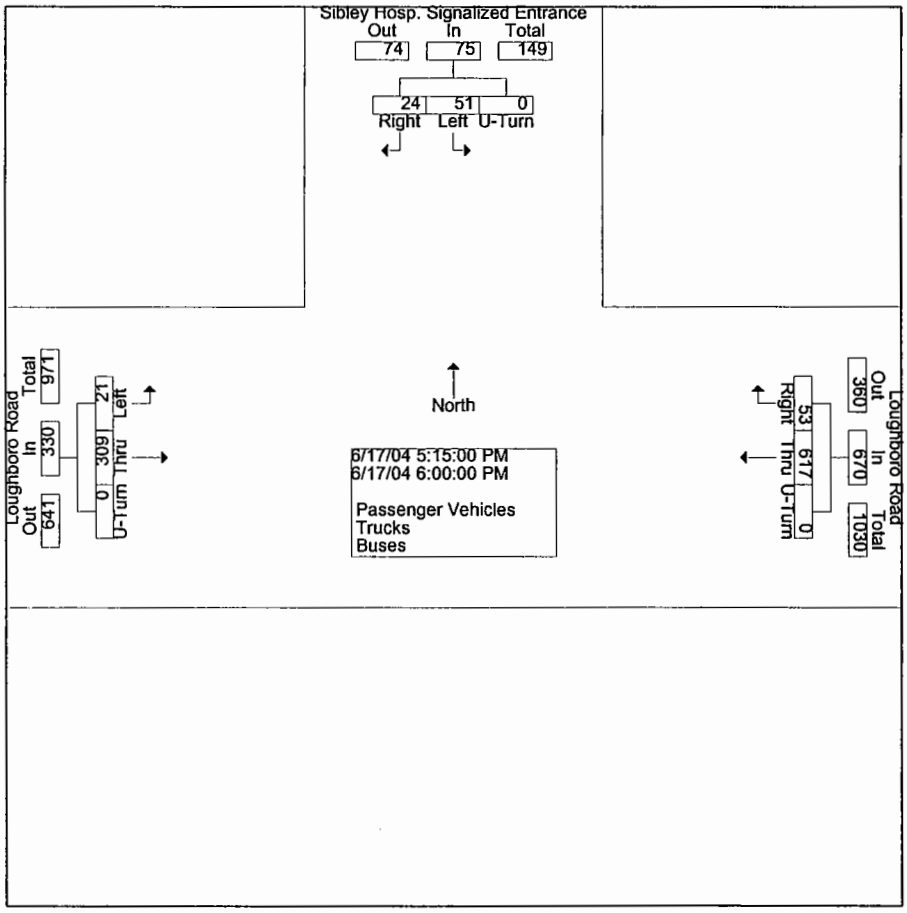
	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1													
Intersection 05:15 PM													
Volume	51	24	0	75	617	53	0	670	21	309	0	330	1075
Percent	68.0	32.0	0.0		92.1	7.9	0.0		6.4	93.6	0.0		
06:00 Volume	10	6	0	16	163	17	0	180	5	93	0	98	294
Peak Factor													0.914
High Int. 05:30 PM					06:00 PM				06:00 PM				
Volume	12	10	0	22	163	17	0	180	5	93	0	98	
Peak Factor				0.852				0.931				0.842	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

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Board : D4-2239
City/County: Washington DC
Weather : Hot/Clear/Dry

File Name : LOU@SIB
Site Code : 45242239
Start Date : 06/17/2004
Page No : 1

Groups Printed- Passenger Vehicles

	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	14	4	0	18	61	11	0	72	13	68	0	81	171
07:30 AM	13	4	0	17	69	22	0	91	20	94	0	114	222
07:45 AM	20	10	0	30	87	22	0	109	15	92	0	107	246
08:00 AM	21	5	0	26	102	17	0	119	8	110	0	118	263
Total	68	23	0	91	319	72	0	391	56	364	0	420	902
08:15 AM	20	4	0	24	104	15	0	119	10	111	0	121	264
08:30 AM	12	10	0	22	103	20	0	123	4	119	0	123	268
08:45 AM	16	9	0	25	85	15	0	100	7	131	0	138	263
09:00 AM	9	4	0	13	117	11	0	128	6	152	0	158	299
Total	57	27	0	84	409	61	0	470	27	513	0	540	1094
04:15 PM	20	8	0	28	125	17	0	142	9	82	0	91	261
04:30 PM	18	8	0	26	126	15	0	141	6	74	0	80	247
04:45 PM	20	11	0	31	152	11	0	163	3	77	0	80	274
05:00 PM	10	12	0	22	114	8	0	122	6	98	0	104	248
Total	68	39	0	107	517	51	0	568	24	331	0	355	1030
05:15 PM	11	5	0	16	134	14	0	148	6	80	0	86	250
05:30 PM	12	10	0	22	152	9	0	161	5	64	0	69	252
05:45 PM	17	2	0	19	163	12	0	175	4	66	0	70	264
06:00 PM	10	6	0	16	159	17	0	176	5	90	0	95	287
Total	50	23	0	73	608	52	0	660	20	300	0	320	1053
Grand Total	243	112	0	355	1853	236	0	2089	127	1508	0	1635	4079
Apprch %	68.5	31.5	0.0		88.7	11.3	0.0		7.8	92.2	0.0		
Total %	6.0	2.7	0.0	8.7	45.4	5.8	0.0	51.2	3.1	37.0	0.0	40.1	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-MO
Board : D4-2239
City/County: Washington DC
Weather : Hot/Clear/Dry

File Name : LOU@SIB
Site Code : 45242239
Start Date : 06/17/2004
Page No : 1

Groups Printed- Trucks

	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:30 AM	0	0	0	0	2	0	0	2	0	1	0	1	3
07:45 AM	0	0	0	0	3	0	0	3	0	3	0	3	6
08:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	6	0	0	6	0	4	0	4	10
08:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
08:30 AM	0	0	0	0	3	0	0	3	0	1	0	1	4
08:45 AM	0	0	0	0	2	0	0	2	0	1	0	1	3
09:00 AM	0	0	0	0	5	0	0	5	0	2	0	2	7
Total	0	0	0	0	12	0	0	12	0	4	0	4	16
04:15 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
04:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
04:45 PM	0	0	0	0	0	1	0	1	0	3	0	3	4
05:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	1	0	1	4	1	0	5	0	5	0	5	11
05:15 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
05:30 PM	0	0	0	0	1	1	0	2	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
06:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	1	1	0	2	1	3	0	4	7
Grand Total	1	1	0	2	23	2	0	25	1	16	0	17	44
Apprch %	50.0	50.0	0.0		92.0	8.0	0.0		5.9	94.1	0.0		
Total %	2.3	2.3	0.0	4.5	52.3	4.5	0.0	56.8	2.3	36.4	0.0	38.6	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-MO
Board : D4-2239
City/County: Washington DC
Weather : Hot/Clear/Dry

File Name : LOU@SIB
Site Code : 45242239
Start Date : 06/17/2004
Page No : 1

Groups Printed- Buses

	Sibley Hosp. Signalized Entrance From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	0	0	0	0	1	0	0	1	0	3	0	3	4
07:30 AM	0	0	0	0	1	0	0	1	0	2	0	2	3
07:45 AM	0	0	0	0	4	0	0	4	0	1	0	1	5
08:00 AM	0	0	0	0	2	0	0	2	0	5	0	5	7
Total	0	0	0	0	8	0	0	8	0	11	0	11	19
08:15 AM	0	0	0	0	4	0	0	4	0	2	0	2	6
08:30 AM	0	0	0	0	3	0	0	3	0	2	0	2	5
08:45 AM	0	0	0	0	2	0	0	2	0	4	0	4	6
09:00 AM	0	0	0	0	1	0	0	1	0	2	0	2	3
Total	0	0	0	0	10	0	0	10	0	10	0	10	20
04:15 PM	0	0	0	0	3	0	0	3	0	1	0	1	4
04:30 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
04:45 PM	0	0	0	0	4	0	0	4	0	1	0	1	5
05:00 PM	0	0	0	0	4	0	0	4	0	2	0	2	6
Total	0	0	0	0	12	0	0	12	0	6	0	6	18
05:15 PM	0	1	0	1	1	0	0	1	0	1	0	1	3
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	3	0	0	3	0	2	0	2	5
06:00 PM	0	0	0	0	4	0	0	4	0	2	0	2	6
Total	0	1	0	1	8	0	0	8	0	6	0	6	15
Grand Total	0	1	0	1	38	0	0	38	0	33	0	33	72
Apprch %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	1.4	0.0	1.4	52.8	0.0	0.0	52.8	0.0	45.8	0.0	45.8	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Hot/Sunny/Dry

File Name : LOU@HOS
Site Code : 61291908
Start Date : 06/29/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	1	0	0	1	36	1	0	37	0	61	0	61	99
07:30 AM	0	0	0	0	51	0	0	51	0	64	0	64	115
07:45 AM	0	0	0	0	49	1	0	50	1	61	0	62	112
08:00 AM	1	1	0	2	117	3	0	120	1	139	0	140	262
Total	2	1	0	3	253	5	0	258	2	325	0	327	588
08:15 AM	1	0	0	1	110	0	0	110	0	133	0	133	244
08:30 AM	0	1	0	1	112	0	0	112	0	137	0	137	250
08:45 AM	1	0	0	1	106	5	0	111	2	140	0	142	254
09:00 AM	1	1	0	2	139	3	0	142	1	141	0	142	286
Total	3	2	0	5	467	8	0	475	3	551	0	554	1034
04:15 PM	1	2	0	3	127	3	0	130	1	74	0	75	208
04:30 PM	0	3	0	3	137	0	0	137	0	81	0	81	221
04:45 PM	0	1	0	1	133	1	0	134	3	71	0	74	209
05:00 PM	1	3	0	4	153	0	0	153	1	84	0	85	242
Total	2	9	0	11	550	4	0	554	5	310	0	315	880
05:15 PM	1	1	0	2	142	2	0	144	2	85	0	87	233
05:30 PM	0	3	0	3	152	0	0	152	2	82	0	84	239
05:45 PM	1	2	0	3	148	1	0	149	1	71	0	72	224
06:00 PM	0	1	0	1	169	2	0	171	0	121	0	121	293
Total	2	7	0	9	611	5	0	616	5	359	0	364	989
Grand Total	9	19	0	28	1881	22	0	1903	15	1545	0	1560	3491
Apprch %	32.1	67.9	0.0		98.8	1.2	0.0		1.0	99.0	0.0		
Total %	0.3	0.5	0.0	0.8	53.9	0.6	0.0	54.5	0.4	44.3	0.0	44.7	

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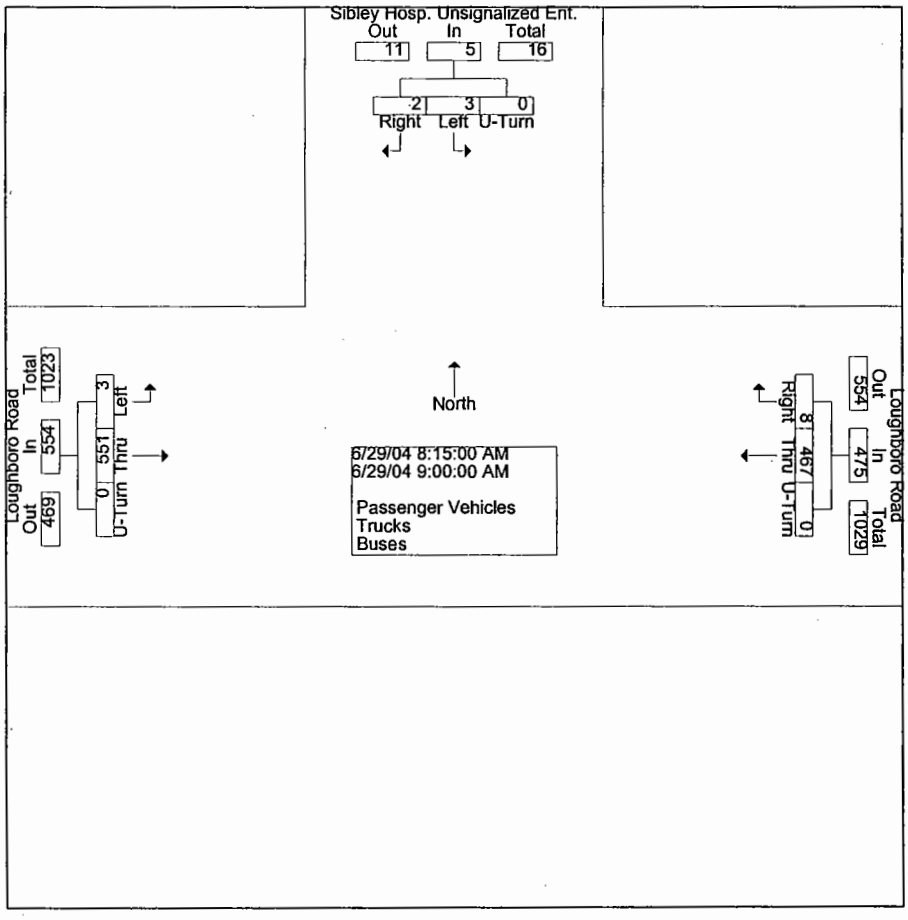
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Hot/Sunny/Dry

File Name : LOU@HOS
Site Code : 61291908
Start Date : 06/29/2004
Page No : 2

	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1													
Intersection	08:15 AM												
Volume	3	2	0	5	467	8	0	475	3	551	0	554	1034
Percent	60.0	40.0	0.0		98.3	1.7	0.0		0.5	99.5	0.0		
09:00 Volume	1	1	0	2	139	3	0	142	1	141	0	142	286
Peak Factor													0.904
High Int.	09:00 AM				09:00 AM				08:45 AM				
Volume	1	1	0	2	139	3	0	142	2	140	0	142	
Peak Factor				0.625				0.836				0.975	



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File Name : LOU@HOS
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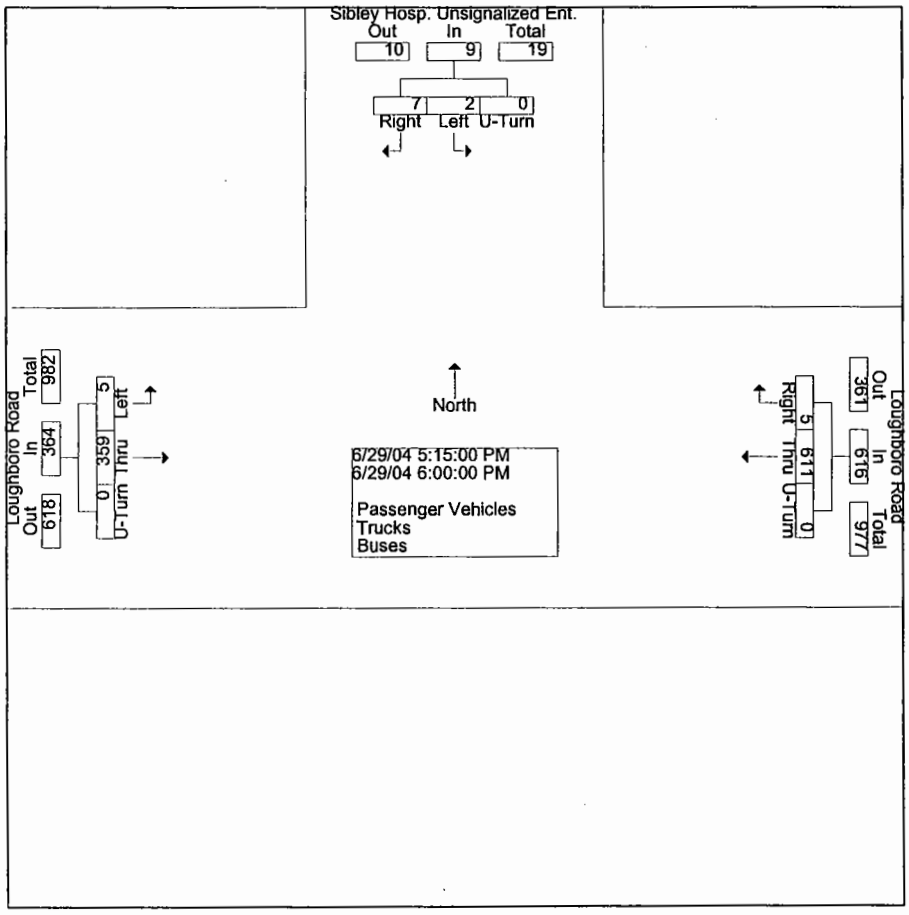
	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1													
Intersection 05:15 PM													
Volume	2	7	0	9	611	5	0	616	5	359	0	364	989
Percent	22.2	77.8	0.0		99.2	0.8	0.0		1.4	98.6	0.0		
06:00 Volume	0	1	0	1	169	2	0	171	0	121	0	121	293
Peak Factor													0.844
High Int. 05:30 PM					06:00 PM				06:00 PM				
Volume	0	3	0	3	169	2	0	171	0	121	0	121	
Peak Factor				0.750				0.901				0.752	



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Lanham, MD 20706-2218
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Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Hot/Sunny/Dry

File Name : LOU@HOS
Site Code : 61291908
Start Date : 06/29/2004

Groups Printed- Passenger Vehicles

	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	1	0	0	1	34	0	0	34	0	59	0	59	94
07:30 AM	0	0	0	0	50	0	0	50	0	62	0	62	112
07:45 AM	0	0	0	0	48	1	0	49	1	60	0	61	110
08:00 AM	1	1	0	2	115	3	0	118	1	130	0	131	251
Total	2	1	0	3	247	4	0	251	2	311	0	313	567
08:15 AM	1	0	0	1	108	0	0	108	0	129	0	129	238
08:30 AM	0	1	0	1	110	0	0	110	0	135	0	135	246
08:45 AM	1	0	0	1	104	5	0	109	2	139	0	141	251
09:00 AM	1	1	0	2	137	3	0	140	1	138	0	139	281
Total	3	2	0	5	459	8	0	467	3	541	0	544	1016
04:15 PM	1	2	0	3	125	2	0	127	1	72	0	73	203
04:30 PM	0	3	0	3	135	0	0	135	0	79	0	79	217
04:45 PM	0	1	0	1	131	1	0	132	3	69	0	72	205
05:00 PM	1	3	0	4	147	0	0	147	1	82	0	83	234
Total	2	9	0	11	538	3	0	541	5	302	0	307	859
05:15 PM	1	1	0	2	140	1	0	141	2	84	0	86	229
05:30 PM	0	3	0	3	151	0	0	151	2	79	0	81	235
05:45 PM	1	2	0	3	146	1	0	147	1	70	0	71	221
06:00 PM	0	1	0	1	168	2	0	170	0	120	0	120	291
Total	2	7	0	9	605	4	0	609	5	353	0	358	976
Grand Total	9	19	0	28	1849	19	0	1868	15	1507	0	1522	3418
Apprch %	32.1	67.9	0.0		99.0	1.0	0.0		1.0	99.0	0.0		
Total %	0.3	0.6	0.0	0.8	54.1	0.6	0.0	54.7	0.4	44.1	0.0	44.5	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Hot/Sunny/Dry

File Name : LOU@HOS
Site Code : 61291908
Start Date : 06/29/2004
Page No : 1

Groups Printed- Trucks

	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	5	0	5	5
Total	0	0	0	0	0	1	0	1	0	6	0	6	7
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
09:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	4	0	4	4
04:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	1	0	1	0	2	0	2	3
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	1	0	1	0	1	0	1	2
Grand Total	0	0	0	0	0	3	0	3	0	13	0	13	16
Apprch %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	18.8	0.0	18.8	0.0	81.3	0.0	81.3	

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10210 Greenbelt Road., Suite 310
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Board : D4-1908
City/County: Washington DC
Weather : Hot/Sunny/Dry

File Name : LOU@HOS
Site Code : 61291908
Start Date : 06/29/2004

Groups Printed- Buses

	Sibley Hosp. Unsignalized Ent. From North				Loughboro Road From East				Loughboro Road From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	0	0	0	0	2	0	0	2	0	2	0	2	4
07:30 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
07:45 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
08:00 AM	0	0	0	0	2	0	0	2	0	4	0	4	6
Total	0	0	0	0	6	0	0	6	0	8	0	8	14
08:15 AM	0	0	0	0	2	0	0	2	0	2	0	2	4
08:30 AM	0	0	0	0	2	0	0	2	0	2	0	2	4
08:45 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
09:00 AM	0	0	0	0	2	0	0	2	0	2	0	2	4
Total	0	0	0	0	8	0	0	8	0	6	0	6	14
04:15 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
04:30 PM	0	0	0	0	2	0	0	2	0	2	0	2	4
04:45 PM	0	0	0	0	2	0	0	2	0	2	0	2	4
05:00 PM	0	0	0	0	6	0	0	6	0	1	0	1	7
Total	0	0	0	0	12	0	0	12	0	6	0	6	18
05:15 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
05:30 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
05:45 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
06:00 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
Total	0	0	0	0	6	0	0	6	0	5	0	5	11
Grand Total	0	0	0	0	32	0	0	32	0	25	0	25	57
Apprch %	0.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	56.1	0.0	0.0	56.1	0.0	43.9	0.0	43.9	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2238
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@LOU
Site Code : 44042238
Start Date : 06/17/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

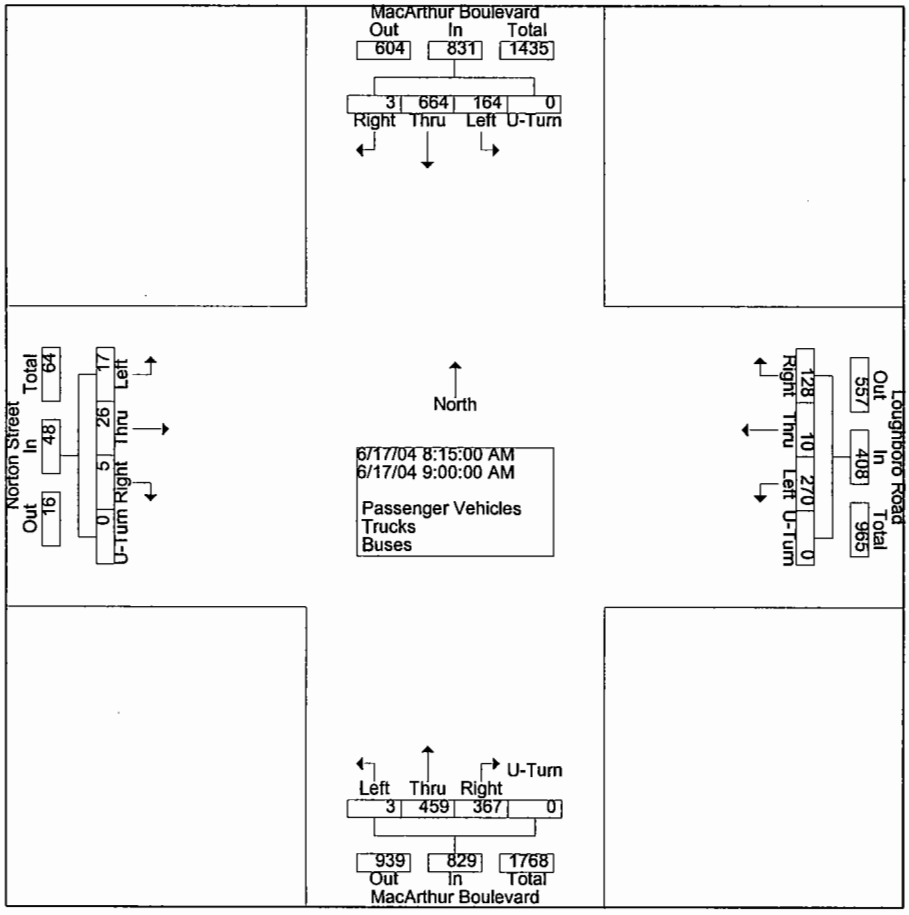
	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	46	110	0	0	156	0	63	43	0	106	41	2	13	0	56	0	2	0	0	2	320
07:30 AM	53	121	1	0	175	1	78	53	0	132	50	5	18	0	73	1	3	1	0	5	385
07:45 AM	51	154	0	0	205	0	90	61	0	151	68	2	27	0	97	0	7	6	0	13	466
08:00 AM	36	148	4	0	188	0	84	85	0	169	74	2	36	0	112	0	4	2	0	6	475
Total	186	533	5	0	724	1	315	242	0	558	233	11	94	0	338	1	16	9	0	26	1646
08:15 AM	42	191	1	0	234	1	123	72	0	196	66	4	44	0	114	4	7	1	0	12	556
08:30 AM	43	174	0	0	217	0	110	93	0	203	71	0	25	0	96	6	7	2	0	15	531
08:45 AM	40	156	2	0	198	1	111	107	0	219	69	1	30	0	100	4	7	1	0	12	529
09:00 AM	39	143	0	0	182	1	115	95	0	211	64	5	29	0	98	3	5	1	0	9	500
Total	164	664	3	0	831	3	459	367	0	829	270	10	128	0	408	17	26	5	0	48	2116
04:15 PM	20	128	1	0	149	2	73	52	0	127	105	6	30	0	141	9	6	1	0	16	433
04:30 PM	28	140	1	0	169	3	58	62	0	123	105	2	38	0	145	0	10	1	0	11	448
04:45 PM	32	148	3	0	183	2	66	51	0	119	110	4	40	0	154	3	6	4	0	13	469
05:00 PM	32	131	0	0	163	0	78	64	0	142	107	2	32	0	141	8	3	0	0	11	457
Total	112	547	5	0	664	7	275	229	0	511	427	14	140	0	581	20	25	6	0	51	1807
05:15 PM	18	132	2	0	152	1	86	36	0	123	94	2	32	0	128	4	0	0	0	4	407
05:30 PM	32	157	0	0	189	0	96	27	0	123	133	3	38	0	174	1	4	1	0	6	492
05:45 PM	17	125	1	0	143	0	106	77	0	183	133	10	30	0	173	3	0	0	0	3	502
06:00 PM	30	141	0	0	171	1	91	61	0	153	131	8	32	0	171	5	4	0	0	9	504
Total	97	555	3	0	655	2	379	201	0	582	491	23	132	0	646	13	8	1	0	22	1905
Grand Total	559	2299	16	0	2874	13	1428	1039	0	2480	1421	58	494	0	1973	51	75	21	0	147	7474
Apprch %	19.5	80.0	0.6	0.0		0.5	57.6	41.9	0.0		72.0	2.9	25.0	0.0		34.7	51.0	14.3	0.0		
Total %	7.5	30.8	0.2	0.0	38.5	0.2	19.1	13.9	0.0	33.2	19.0	0.8	6.6	0.0	26.4	0.7	1.0	0.3	0.0	2.0	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2238
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@LOU
Site Code : 44042238
Start Date : 06/17/2004
Page No : 2

	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Intersection	08:15 AM																				
Volume	164	664	3	0	831	3	459	367	0	829	270	10	128	0	408	17	26	5	0	48	2116
Percent	19.7	79.9	0.4	0.0		0.4	55.4	44.3	0.0		66.2	2.5	31.4	0.0		35.4	54.2	10.4	0.0		
08:15 Volume	42	191	1	0	234	1	123	72	0	196	66	4	44	0	114	4	7	1	0	12	556
Peak Factor																					0.951
High Int.	08:15 AM					08:45 AM					08:15 AM					08:30 AM					
Volume	42	191	1	0	234	1	111	107	0	219	66	4	44	0	114	6	7	2	0	15	
Peak Factor					0.888					0.946					0.895					0.800	



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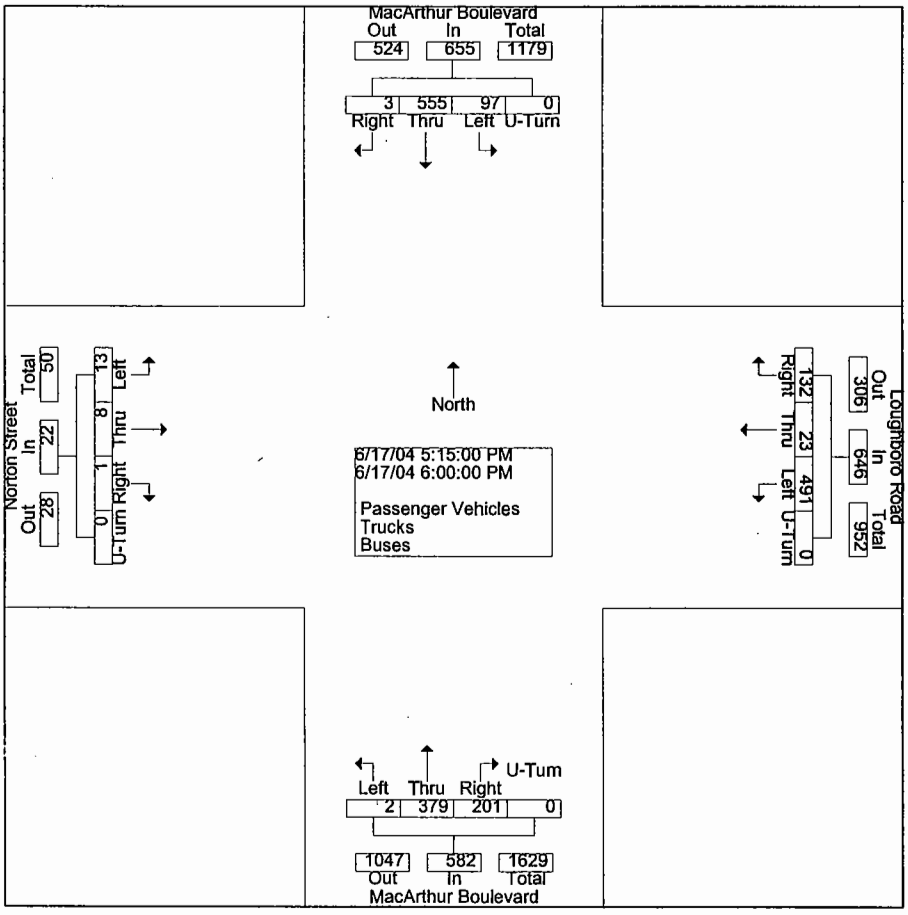
	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection 05:15 PM																					
Volume	97	555	3	0	655	2	379	201	0	582	491	23	132	0	646	13	8	1	0	22	1905
Percent	14.8	84.7	0.5	0.0		0.3	65.1	34.5	0.0		76.0	3.6	20.4	0.0		59.1	36.4	4.5	0.0		
06:00 Volume	30	141	0	0	171	1	91	61	0	153	131	8	32	0	171	5	4	0	0	9	504
Peak Factor																					0.945
High Int.	05:30 PM					05:45 PM					05:30 PM					06:00 PM					
Volume	32	157	0	0	189	0	106	77	0	183	133	3	38	0	174	5	4	0	0	9	
Peak Factor					0.866					0.795					0.928					0.611	



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File Name : MAC@LOU
Site Code : 44042238
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Page No : 1

Groups Printed- Passenger Vehicles

	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	45	108	0	0	153	0	63	42	0	105	39	2	13	0	54	0	2	0	0	2	314
07:30 AM	52	117	1	0	170	1	75	51	0	127	46	5	17	0	68	1	3	1	0	5	370
07:45 AM	50	152	0	0	202	0	90	58	0	148	62	2	26	0	90	0	7	6	0	13	453
08:00 AM	35	147	4	0	186	0	84	82	0	166	73	2	35	0	110	0	4	2	0	6	468
Total	182	524	5	0	711	1	312	233	0	546	220	11	91	0	322	1	16	9	0	26	1605
08:15 AM	41	191	1	0	233	1	121	71	0	193	61	4	43	0	108	4	7	1	0	12	546
08:30 AM	42	171	0	0	213	0	108	90	0	198	67	0	23	0	90	5	7	2	0	14	515
08:45 AM	39	155	2	0	196	1	109	102	0	212	66	1	30	0	97	4	7	1	0	12	517
09:00 AM	36	136	0	0	172	1	105	93	0	199	60	2	28	0	90	3	5	1	0	9	470
Total	158	653	3	0	814	3	443	356	0	802	254	7	124	0	385	16	26	5	0	47	2048
04:15 PM	20	127	1	0	148	2	71	49	0	122	102	6	29	0	137	9	6	1	0	16	423
04:30 PM	27	139	1	0	167	3	58	61	0	122	103	2	37	0	142	0	10	1	0	11	442
04:45 PM	30	147	3	0	180	2	65	48	0	115	104	4	40	0	148	3	6	3	0	12	455
05:00 PM	30	130	0	0	160	0	76	63	0	139	104	2	31	0	137	8	3	0	0	11	447
Total	107	543	5	0	655	7	270	221	0	498	413	14	137	0	564	20	25	5	0	50	1767
05:15 PM	18	131	2	0	151	1	85	36	0	122	92	2	30	0	124	4	0	0	0	4	401
05:30 PM	31	157	0	0	188	0	95	27	0	122	133	3	37	0	173	1	4	1	0	6	489
05:45 PM	17	125	1	0	143	0	105	74	0	179	130	10	30	0	170	3	0	0	0	3	495
06:00 PM	29	141	0	0	170	0	89	58	0	147	128	8	31	0	167	5	4	0	0	9	493
Total	95	554	3	0	652	1	374	195	0	570	483	23	128	0	634	13	8	1	0	22	1878
Grand Total	542	2274	16	0	2832	12	1399	1005	0	2416	1370	55	480	0	1905	50	75	20	0	145	7298
Apprch %	19.1	80.3	0.6	0.0		0.5	57.9	41.6	0.0		71.9	2.9	25.2	0.0		34.5	51.7	13.8	0.0		
Total %	7.4	31.2	0.2	0.0	38.8	0.2	19.2	13.8	0.0	33.1	18.8	0.8	6.6	0.0	26.1	0.7	1.0	0.3	0.0	2.0	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2238
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@LOU
Site Code : 44042238
Start Date : 06/17/2004
Page No : 1

Groups Printed- Trucks

	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	3
07:30 AM	0	2	0	0	2	0	3	2	0	5	2	0	0	0	2	0	0	0	0	0	9
07:45 AM	0	1	0	0	1	0	0	2	0	2	3	0	0	0	3	0	0	0	0	0	6
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	4	0	0	4	0	3	5	0	8	6	0	1	0	7	0	0	0	0	0	19
08:15 AM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
08:30 AM	0	2	0	0	2	0	2	0	0	2	2	0	1	0	3	0	0	0	0	0	7
08:45 AM	0	1	0	0	1	0	2	2	0	4	1	0	0	0	1	0	0	0	0	0	6
09:00 AM	1	6	0	0	7	0	7	1	0	8	3	3	0	0	6	0	0	0	0	0	21
Total	1	9	0	0	10	0	13	3	0	16	8	3	1	0	12	0	0	0	0	0	38
04:15 PM	0	0	0	0	0	0	1	2	0	3	2	0	1	0	3	0	0	0	0	0	6
04:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	1	1	0	0	2	0	0	2	0	2	1	0	0	0	1	0	0	1	0	1	6
05:00 PM	1	1	0	0	2	0	2	0	0	2	1	0	1	0	2	0	0	0	0	0	6
Total	2	3	0	0	5	0	3	4	0	7	4	0	2	0	6	0	0	1	0	1	19
05:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
06:00 PM	0	0	0	0	0	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	1	0	0	1	1	3	1	0	5	1	0	1	0	2	0	0	0	0	0	8
Grand Total	3	17	0	0	20	1	22	13	0	36	19	3	5	0	27	0	0	1	0	1	84
Apprch %	15.0	85.0	0.0	0.0		2.8	61.1	36.1	0.0		70.4	11.1	18.5	0.0		0.0	0.0	100.0	0.0		
Total %	3.6	20.2	0.0	0.0	23.8	1.2	26.2	15.5	0.0	42.9	22.6	3.6	6.0	0.0	32.1	0.0	0.0	1.2	0.0	1.2	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2238
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@LOU
Site Code : 44042238
Start Date : 06/17/2004
Page No : 1

Groups Printed- Buses

	MacArthur Boulevard From North					MacArthur Boulevard From South					Loughboro Road From East					Norton Street From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	1	1	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
07:30 AM	1	2	0	0	3	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	6
07:45 AM	1	1	0	0	2	0	0	1	0	1	3	0	1	0	4	0	0	0	0	0	7
08:00 AM	1	1	0	0	2	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	6
Total	4	5	0	0	9	0	0	4	0	4	7	0	2	0	9	0	0	0	0	0	22
08:15 AM	1	0	0	0	1	0	0	1	0	1	3	0	1	0	4	0	0	0	0	0	6
08:30 AM	1	1	0	0	2	0	0	3	0	3	2	0	1	0	3	1	0	0	0	1	9
08:45 AM	1	0	0	0	1	0	0	3	0	3	2	0	0	0	2	0	0	0	0	0	6
09:00 AM	2	1	0	0	3	0	3	1	0	4	1	0	1	0	2	0	0	0	0	0	9
Total	5	2	0	0	7	0	3	8	0	11	8	0	3	0	11	1	0	0	0	1	30
04:15 PM	0	1	0	0	1	0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	4
04:30 PM	1	0	0	0	1	0	0	1	0	1	2	0	1	0	3	0	0	0	0	0	5
04:45 PM	1	0	0	0	1	0	1	1	0	2	5	0	0	0	5	0	0	0	0	0	8
05:00 PM	1	0	0	0	1	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	4
Total	3	1	0	0	4	0	2	4	0	6	10	0	1	0	11	0	0	0	0	0	21
05:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
05:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	1	3	0	4	3	0	0	0	3	0	0	0	0	0	7
06:00 PM	1	0	0	0	1	0	0	2	0	2	3	0	1	0	4	0	0	0	0	0	7
Total	2	0	0	0	2	0	2	5	0	7	7	0	3	0	10	0	0	0	0	0	19
Grand Total	14	8	0	0	22	0	7	21	0	28	32	0	9	0	41	1	0	0	0	1	92
Apprch %	63.6	36.4	0.0	0.0		0.0	25.0	75.0	0.0		78.0	0.0	22.0	0.0		100.0	0.0	0.0	0.0		
Total %	15.2	8.7	0.0	0.0	23.9	0.0	7.6	22.8	0.0	30.4	34.8	0.0	9.8	0.0	44.6	1.1	0.0	0.0	0.0	1.1	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Warm/Sunny/Dry

File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

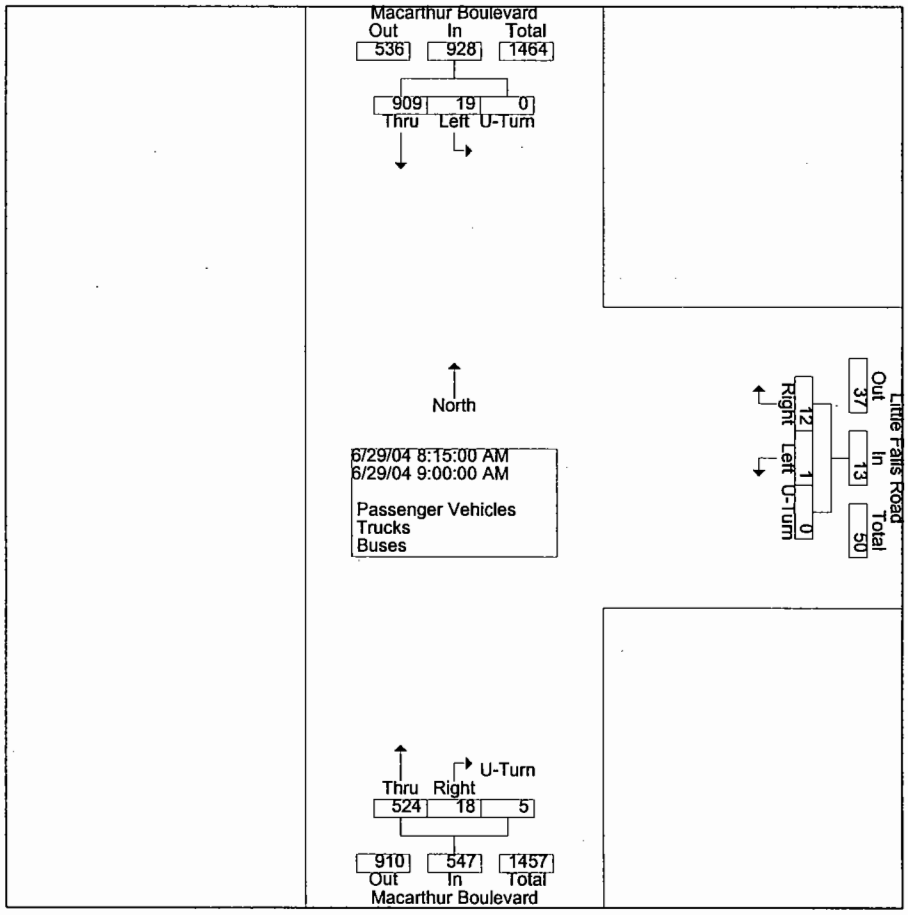
	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
07:15 AM	19	140	0	159	75	8	6	89	5	3	1	9	257
07:30 AM	11	187	0	198	103	8	3	114	2	3	0	5	317
07:45 AM	10	189	0	199	110	4	1	115	0	1	0	1	315
08:00 AM	9	192	0	201	122	5	2	129	2	2	0	4	334
Total	49	708	0	757	410	25	12	447	9	9	1	19	1223
08:15 AM	7	197	0	204	119	3	4	126	0	6	0	6	336
08:30 AM	5	258	0	263	147	8	1	156	0	3	0	3	422
08:45 AM	4	241	0	245	137	4	0	141	1	2	0	3	389
09:00 AM	3	213	0	216	121	3	0	124	0	1	0	1	341
Total	19	909	0	928	524	18	5	547	1	12	0	13	1488
04:15 PM	1	141	1	143	93	1	1	95	9	11	0	20	258
04:30 PM	2	179	0	181	100	4	0	104	5	10	0	15	300
04:45 PM	0	154	0	154	98	0	0	98	6	9	0	15	267
05:00 PM	2	170	0	172	94	2	0	96	3	8	0	11	279
Total	5	644	1	650	385	7	1	393	23	38	0	61	1104
05:15 PM	3	127	0	130	91	0	2	93	7	11	0	18	241
05:30 PM	1	178	0	179	145	1	1	147	9	11	0	20	346
05:45 PM	0	134	0	134	132	1	0	133	5	9	0	14	281
06:00 PM	1	162	0	163	126	0	0	126	5	7	0	12	301
Total	5	601	0	606	494	2	3	499	26	38	0	64	1169
Grand Total	78	2862	1	2941	1813	52	21	1886	59	97	1	157	4984
Apprch %	2.7	97.3	0.0		96.1	2.8	1.1		37.6	61.8	0.6		
Total %	1.6	57.4	0.0	59.0	36.4	1.0	0.4	37.8	1.2	1.9	0.0	3.2	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Warm/Sunny/Dry

File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004

	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1													
Intersection	08:15 AM												
Volume	19	909	0	928	524	18	5	547	1	12	0	13	1488
Percent	2.0	98.0	0.0		95.8	3.3	0.9		7.7	92.3	0.0		
08:30 Volume	5	258	0	263	147	8	1	156	0	3	0	3	422
Peak Factor													0.882
High Int.	08:30 AM				08:30 AM				08:15 AM				
Volume	5	258	0	263	147	8	1	156	0	6	0	6	
Peak Factor				0.882				0.877				0.542	



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Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

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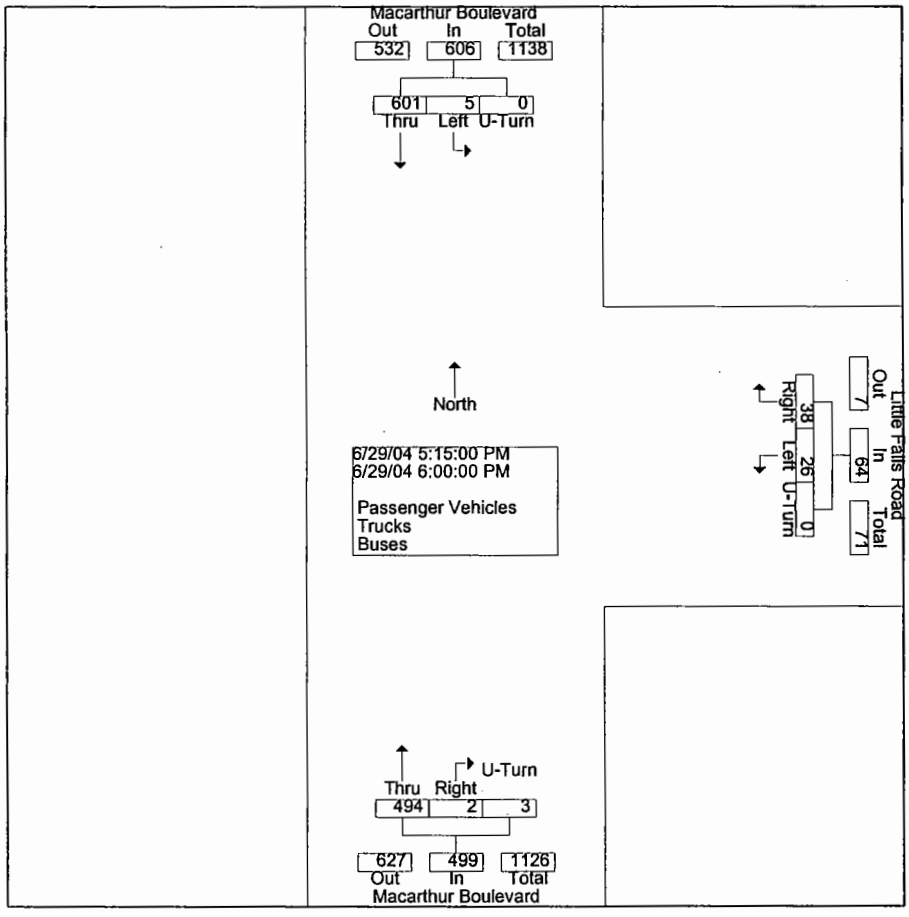
File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004
Page No : 3

	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1													
Intersection 05:15 PM													
Volume	5	601	0	606	494	2	3	499	26	38	0	64	1169
Percent	0.8	99.2	0.0		99.0	0.4	0.6		40.6	59.4	0.0		
05:30 Volume	1	178	0	179	145	1	1	147	9	11	0	20	346
Peak Factor													0.845
High Int. 05:30 PM					05:30 PM				05:30 PM				
Volume	1	178	0	179	145	1	1	147	9	11	0	20	
Peak Factor				0.846				0.849				0.800	



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Lanham, MD 20706-2218
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Board : D4-1908
City/County: Washington DC
Weather : Warm/Sunny/Dry

File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004

Groups Printed- Passenger Vehicles

	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
07:15 AM	19	138	0	157	70	8	6	84	5	2	1	8	249
07:30 AM	11	185	0	196	102	7	3	112	2	3	0	5	313
07:45 AM	10	187	0	197	108	4	1	113	0	1	0	1	311
08:00 AM	9	190	0	199	120	5	2	127	1	2	0	3	329
Total	49	700	0	749	400	24	12	436	8	8	1	17	1202
08:15 AM	7	194	0	201	117	3	4	124	0	5	0	5	330
08:30 AM	5	255	0	260	144	7	1	152	0	3	0	3	415
08:45 AM	4	240	0	244	135	4	0	139	1	2	0	3	386
09:00 AM	3	210	0	213	120	3	0	123	0	1	0	1	337
Total	19	899	0	918	516	17	5	538	1	11	0	12	1468
04:15 PM	1	139	1	141	93	1	1	95	9	10	0	19	255
04:30 PM	2	177	0	179	99	3	0	102	4	10	0	14	295
04:45 PM	0	154	0	154	97	0	0	97	6	9	0	15	266
05:00 PM	2	169	0	171	92	2	0	94	3	8	0	11	276
Total	5	639	1	645	381	6	1	388	22	37	0	59	1092
05:15 PM	3	127	0	130	91	0	2	93	7	10	0	17	240
05:30 PM	1	176	0	177	144	0	1	145	9	11	0	20	342
05:45 PM	0	132	0	132	132	1	0	133	5	9	0	14	279
06:00 PM	1	162	0	163	125	0	0	125	4	7	0	11	299
Total	5	597	0	602	492	1	3	496	25	37	0	62	1160
Grand Total	78	2835	1	2914	1789	48	21	1858	56	93	1	150	4922
Apprch %	2.7	97.3	0.0		96.3	2.6	1.1		37.3	62.0	0.7		
Total %	1.6	57.6	0.0	59.2	36.3	1.0	0.4	37.7	1.1	1.9	0.0	3.0	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By: ORGA-KM
Board : D4-1908
City/County: Washington DC
Weather : Warm/Sunny/Dry

File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004
Page No : 1

Groups Printed- Trucks

	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	0	0	0	3	0	0	3	0	1	0	1	4
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	3	1	0	4	1	1	0	2	6
08:15 AM	0	1	0	1	1	0	0	1	0	1	0	1	3
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
09:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	1	1	0	2	0	1	0	1	5
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	1	0	1	0	1	0	1	1	1	0	2	4
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
06:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	0	1	0	1	0	1	1	1	0	2	4
Grand Total	0	4	0	4	4	4	0	8	3	4	0	7	19
Apprch %	0.0	100.0	0.0		50.0	50.0	0.0		42.9	57.1	0.0		
Total %	0.0	21.1	0.0	21.1	21.1	21.1	0.0	42.1	15.8	21.1	0.0	36.8	

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File Name : MAC@LIT
Site Code : 61291908
Start Date : 06/29/2004

Groups Printed- Buses

	Macarthur Boulevard From North				Macarthur Boulevard From South				Little Falls Road From East				
End Time	Left	Thru	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
07:30 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
07:45 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
08:00 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
Total	0	8	0	8	7	0	0	7	0	0	0	0	15
08:15 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
08:30 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
08:45 AM	0	1	0	1	2	0	0	2	0	0	0	0	3
09:00 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	0	8	0	8	7	0	0	7	0	0	0	0	15
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
05:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
Total	0	4	0	4	4	0	0	4	0	0	0	0	8
05:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
05:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
06:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	3	0	3	2	0	0	2	0	0	0	0	5
Grand Total	0	23	0	23	20	0	0	20	0	0	0	0	43
Apprch %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	53.5	0.0	53.5	46.5	0.0	0.0	46.5	0.0	0.0	0.0	0.0	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-KM
Board :D4-1908
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

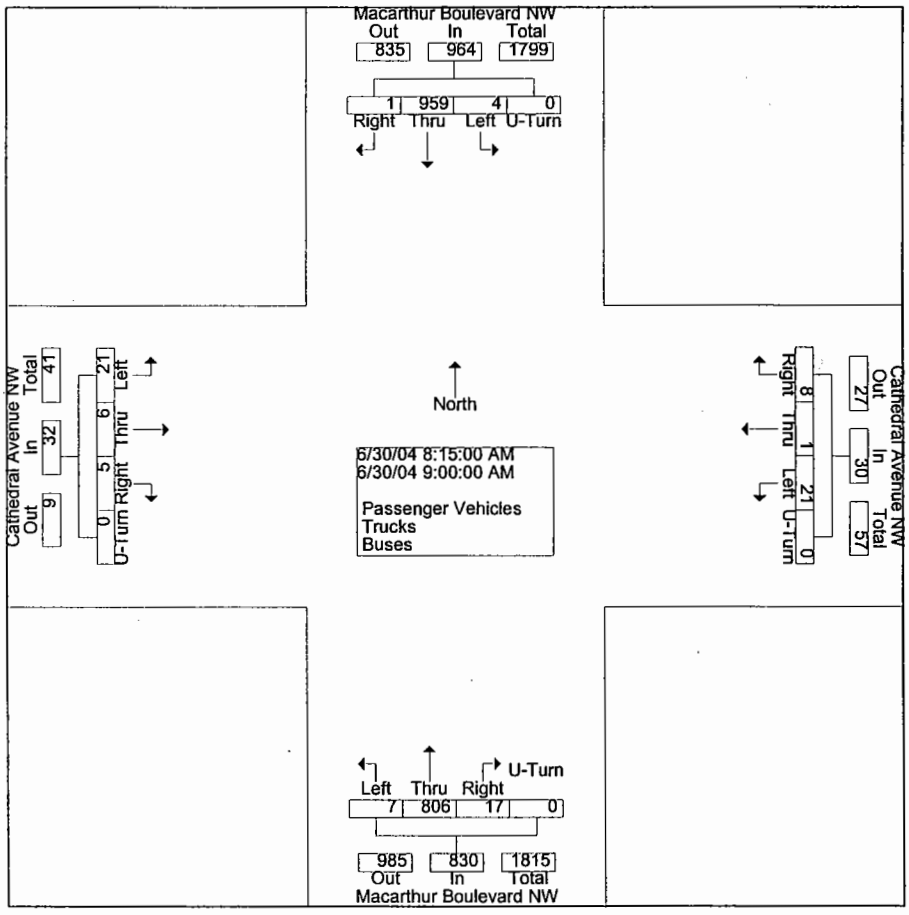
	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	2	143	2	0	147	1	129	2	0	132	2	0	2	0	4	2	0	1	0	3	286
07:30 AM	1	173	1	0	175	3	174	3	0	180	3	4	1	0	8	3	0	4	0	7	370
07:45 AM	2	263	1	0	266	1	184	4	0	189	4	2	3	0	9	0	1	1	0	2	466
08:00 AM	2	255	0	0	257	2	199	3	0	204	5	1	2	0	8	5	0	3	0	8	477
Total	7	834	4	0	845	7	686	12	0	705	14	7	8	0	29	10	1	9	0	20	1599
08:15 AM	0	207	0	0	207	2	169	4	0	175	0	0	3	0	3	2	3	0	0	5	390
08:30 AM	1	239	1	0	241	1	192	7	0	200	4	0	1	0	5	5	0	2	0	7	453
08:45 AM	2	271	0	0	273	2	218	3	0	223	7	0	2	0	9	2	1	2	0	5	510
09:00 AM	1	242	0	0	243	2	227	3	0	232	10	1	2	0	13	12	2	1	0	15	503
Total	4	959	1	0	964	7	806	17	0	830	21	1	8	0	30	21	6	5	0	32	1856
04:15 PM	4	212	4	0	220	4	107	2	0	113	3	1	4	0	8	6	0	2	0	8	349
04:30 PM	8	221	1	0	230	5	122	2	0	129	8	2	2	0	12	3	1	2	0	6	377
04:45 PM	1	231	1	0	233	6	129	2	0	137	3	0	2	0	5	8	1	4	0	13	388
05:00 PM	4	258	1	0	263	4	146	0	0	150	5	0	0	0	5	7	0	2	0	9	427
Total	17	922	7	0	946	19	504	6	0	529	19	3	8	0	30	24	2	10	0	36	1541
05:15 PM	5	266	3	0	274	3	118	1	0	122	2	0	5	0	7	6	0	2	0	8	411
05:30 PM	5	267	0	0	272	3	137	4	0	144	5	1	3	0	9	6	1	1	0	8	433
05:45 PM	0	267	0	0	267	1	140	9	0	150	1	0	2	0	3	8	3	0	0	11	431
06:00 PM	4	323	2	0	329	5	153	2	0	160	5	1	4	0	10	10	2	2	0	14	513
Total	14	1123	5	0	1142	12	548	16	0	576	13	2	14	0	29	30	6	5	0	41	1788
Grand Total	42	3838	17	0	3897	45	2544	51	0	2640	67	13	38	0	118	85	15	29	0	129	6784
Apprch %	1.1	98.5	0.4	0.0		1.7	96.4	1.9	0.0		56.8	11.0	32.2	0.0		65.9	11.6	22.5	0.0		
Total %	0.6	56.6	0.3	0.0	57.4	0.7	37.5	0.8	0.0	38.9	1.0	0.2	0.6	0.0	1.7	1.3	0.2	0.4	0.0	1.9	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-KM
Board :D4-1908
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004

	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Intersection 08:15 AM																					
Volume	4	959	1	0	964	7	806	17	0	830	21	1	8	0	30	21	6	5	0	32	1856
Percent	0.4	99.5	0.1	0.0		0.8	97.1	2.0	0.0		70.0	3.3	26.7	0.0		65.6	18.8	15.6	0.0		
08:45 Volume	2	271	0	0	273	2	218	3	0	223	7	0	2	0	9	2	1	2	0	5	510
Peak Factor																					0.910
High Int. 08:45 AM						09:00 AM					09:00 AM					09:00 AM					
Volume	2	271	0	0	273	2	227	3	0	232	10	1	2	0	13	12	2	1	0	15	
Peak Factor					0.883					0.894					0.577					0.533	



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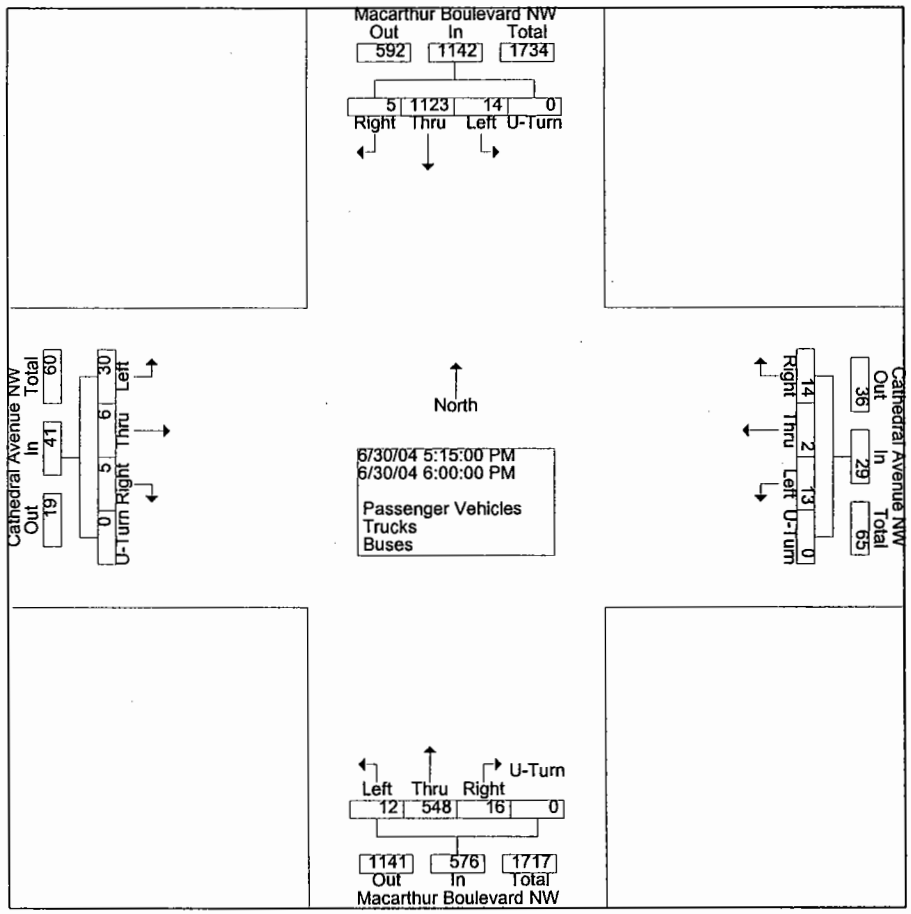
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004
Page No : 3

	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection 05:15 PM																					
Volume	14	1123	5	0	1142	12	548	16	0	576	13	2	14	0	29	30	6	5	0	41	1788
Percent	1.2	98.3	0.4	0.0		2.1	95.1	2.8	0.0		44.8	6.9	48.3	0.0		73.2	14.6	12.2	0.0		
06:00 Volume	4	323	2	0	329	5	153	2	0	160	5	1	4	0	10	10	2	2	0	14	513
Peak Factor																					0.871
High Int. 06:00 PM						06:00 PM					06:00 PM					06:00 PM					
Volume	4	323	2	0	329	5	153	2	0	160	5	1	4	0	10	10	2	2	0	14	
Peak Factor					0.868					0.900					0.725					0.732	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-KM
Board :D4-1908
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004
Page No : 1

Groups Printed- Passenger Vehicles

	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	2	137	2	0	141	1	127	2	0	130	2	0	2	0	4	2	0	1	0	3	278
07:30 AM	1	171	1	0	173	3	172	3	0	178	3	4	1	0	8	3	0	4	0	7	366
07:45 AM	2	261	1	0	264	1	180	4	0	185	4	2	3	0	9	0	1	1	0	2	460
08:00 AM	2	251	0	0	253	2	198	3	0	203	5	1	2	0	8	4	0	3	0	7	471
Total	7	820	4	0	831	7	677	12	0	696	14	7	8	0	29	9	1	9	0	19	1575
08:15 AM	0	202	0	0	202	2	167	4	0	173	0	0	3	0	3	2	3	0	0	5	383
08:30 AM	1	235	1	0	237	1	189	7	0	197	4	0	1	0	5	5	0	2	0	7	446
08:45 AM	2	269	0	0	271	1	215	1	0	217	7	0	2	0	9	2	1	2	0	5	502
09:00 AM	1	238	0	0	239	2	222	3	0	227	9	1	2	0	12	11	2	1	0	14	492
Total	4	944	1	0	949	6	793	15	0	814	20	1	8	0	29	20	6	5	0	31	1823
04:15 PM	4	208	4	0	216	4	103	2	0	109	3	1	4	0	8	6	0	2	0	8	341
04:30 PM	8	219	1	0	228	5	121	2	0	128	8	2	2	0	12	3	1	2	0	6	374
04:45 PM	1	228	1	0	230	6	128	2	0	136	3	0	2	0	5	8	1	4	0	13	384
05:00 PM	4	255	1	0	260	4	144	0	0	148	5	0	0	0	5	7	0	2	0	9	422
Total	17	910	7	0	934	19	496	6	0	521	19	3	8	0	30	24	2	10	0	36	1521
05:15 PM	5	264	3	0	272	3	118	1	0	122	2	0	5	0	7	6	0	2	0	8	409
05:30 PM	5	266	0	0	271	3	135	4	0	142	5	1	3	0	9	6	1	1	0	8	430
05:45 PM	0	264	0	0	264	1	138	9	0	148	1	0	2	0	3	8	3	0	0	11	426
06:00 PM	4	319	2	0	325	5	152	2	0	159	5	1	4	0	10	10	2	2	0	14	508
Total	14	1113	5	0	1132	12	543	16	0	571	13	2	14	0	29	30	6	5	0	41	1773
Grand Total	42	3787	17	0	3846	44	2509	49	0	2602	66	13	38	0	117	83	15	29	0	127	6692
Apprch %	1.1	98.5	0.4	0.0		1.7	96.4	1.9	0.0		56.4	11.1	32.5	0.0		65.4	11.8	22.8	0.0		
Total %	0.6	56.6	0.3	0.0	57.5	0.7	37.5	0.7	0.0	38.9	1.0	0.2	0.6	0.0	1.7	1.2	0.2	0.4	0.0	1.9	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-KM
Board :D4-1908
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004

Groups Printed- Trucks

	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
08:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	4
09:00 AM	0	2	0	0	2	0	4	0	0	4	1	0	0	0	1	1	0	0	0	1	8
Total	0	4	0	0	4	1	5	2	0	8	1	0	0	0	1	1	0	0	0	1	14
04:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	10	0	0	10	1	10	2	0	13	1	0	0	0	1	1	0	0	0	1	25
Apprch %	0.0	100.0	0.0	0.0		7.7	76.9	15.4	0.0		100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	40.0	0.0	0.0	40.0	4.0	40.0	8.0	0.0	52.0	4.0	0.0	0.0	0.0	4.0	4.0	0.0	0.0	0.0	4.0	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-KM
Board :D4-1908
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : MAC@CAT
Site Code : 60291908
Start Date : 06/30/2004
Page No : 1

Groups Printed- Buses

	Macarthur Boulevard NW From North					Macarthur Boulevard NW From South					Cathedral Avenue NW From East					Cathedral Avenue NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
07:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
08:00 AM	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	6
Total	0	11	0	0	11	0	8	0	0	8	0	0	0	0	0	1	0	0	0	1	20
08:15 AM	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
08:30 AM	0	4	0	0	4	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	7
08:45 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
09:00 AM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	11	0	0	11	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	19
04:15 PM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
04:30 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
Total	0	12	0	0	12	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	16
05:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
06:00 PM	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
Total	0	7	0	0	7	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	12
Grand Total	0	41	0	0	41	0	25	0	0	25	0	0	0	0	0	1	0	0	0	1	67
Apprch %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	61.2	0.0	0.0	61.2	0.0	37.3	0.0	0.0	37.3	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	

MECHANICAL TRAFFIC VOLUME/ VEHICLE CLASSIFICATION COUNT REPORTS

O.R. George & Associates, Inc.

City :Washington, D.C.
County :Washington, D.C.
Location:Loughboro Rd,E of Macarthur Blv

JAMAR Technologies, Inc.
TAS for Windows
Copyright 1999

Site Code : 000000012122
Start Date: 06/16/2004
File I.D. : 12122C
Page : 1

Eastbound Ln1

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/16	3	0	2	0	1	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	3	0	2	0	1	0	0	0	0	0	0	0	0	0		
06:00	4	0	1	0	3	0	0	0	0	0	0	0	0	0		
07:00	11	1	6	0	1	3	0	0	0	0	0	0	0	0		
08:00	10	0	6	0	3	1	0	0	0	0	0	0	0	0		
09:00	4	0	2	0	2	0	0	0	0	0	0	0	0	0		
10:00	9	0	3	0	5	1	0	0	0	0	0	0	0	0		
11:00	9	0	5	1	3	0	0	0	0	0	0	0	0	0		
12:00 pm	7	0	1	1	3	2	0	0	0	0	0	0	0	0		
01:00	7	0	2	0	4	1	0	0	0	0	0	0	0	0		
02:00	7	0	4	0	2	1	0	0	0	0	0	0	0	0		
03:00	3	0	2	1	0	0	0	0	0	0	0	0	0	0		
04:00	8	0	5	0	1	1	0	0	1	0	0	0	0	0		
05:00	7	0	5	0	2	0	0	0	0	0	0	0	0	0		
06:00	4	0	3	0	1	0	0	0	0	0	0	0	0	0		
07:00	7	0	4	1	2	0	0	0	0	0	0	0	0	0		
08:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
09:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
10:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	106	1	56	4	34	10	*	*	1	*	*	*	*	*	*	*
12:00 06/17	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
06:00	4	0	2	1	1	0	0	0	0	0	0	0	0	0		
07:00	5	0	2	1	0	2	0	0	0	0	0	0	0	0		
08:00	6	0	2	1	2	1	0	0	0	0	0	0	0	0		
09:00	5	0	4	1	0	0	0	0	0	0	0	0	0	0		
10:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 pm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
02:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0		
03:00	2	0	0	0	0	2	0	0	0	0	0	0	0	0		
04:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
05:00	2	0	1	0	1	0	0	0	0	0	0	0	0	0		
06:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
07:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
09:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	37	*	20	4	7	6	*	*	*	*	*	*	*	*	*	*
Totals	143	1	76	8	41	16	0	0	1	0	0	0	0	0		
Percent		.7%	53.1%	5.5%	28.6%	11.1%	.0%	.0%	.7%	.0%	.0%	.0%	.0%	.0%		

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Eastbound Ln2

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/16	34	1	32	1	0	0	0	0	0	0	0	0	0	0		
01:00	13	0	11	1	1	0	0	0	0	0	0	0	0	0		
02:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0		
03:00	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
04:00	10	0	5	3	0	1	0	0	0	1	0	0	0	0		
05:00	46	1	35	8	0	0	1	0	0	1	0	0	0	0		
06:00	198	0	157	31	0	6	0	0	2	2	0	0	0	0		
07:00	430	1	371	40	6	6	0	0	3	1	1	0	0	1		
08:00	544	0	471	56	4	4	0	0	3	0	2	0	0	4		
09:00	423	0	355	48	4	10	0	0	5	0	0	0	0	1		
10:00	319	0	271	38	1	7	1	0	1	0	0	0	0	0		
11:00	343	0	280	52	0	10	0	0	1	0	0	0	0	0		
12:00 pm	336	1	285	34	1	9	0	0	5	0	1	0	0	0		
01:00	298	0	244	40	0	10	0	0	3	0	0	0	0	1		
02:00	302	0	247	44	2	6	0	1	2	0	0	0	0	0		
03:00	419	0	357	39	5	10	0	0	8	0	0	0	0	0		
04:00	344	0	298	31	4	7	0	0	2	0	0	0	1	1		
05:00	347	2	316	24	0	4	0	0	1	0	0	0	0	0		
06:00	370	0	341	22	2	3	0	0	0	0	2	0	0	0		
07:00	274	0	249	23	0	2	0	0	0	0	0	0	0	0		
08:00	170	1	156	11	2	0	0	0	0	0	0	0	0	0		
09:00	150	0	138	6	3	1	0	0	0	2	0	0	0	0		
10:00	112	0	107	3	2	0	0	0	0	0	0	0	0	0		
11:00	67	0	62	3	2	0	0	0	0	0	0	0	0	0		
Day Totals	5562	7	4800	559	39	96	2	1	36	7	6	*	1	8	*	*
12:00 06/17	21	0	20	0	1	0	0	0	0	0	0	0	0	0		
01:00	11	0	6	2	2	0	0	0	0	1	0	0	0	0		
02:00	7	0	7	0	0	0	0	0	0	0	0	0	0	0		
03:00	8	0	5	3	0	0	0	0	0	0	0	0	0	0		
04:00	16	0	11	3	0	1	0	0	0	1	0	0	0	0		
05:00	49	0	36	12	1	0	0	0	0	0	0	0	0	0		
06:00	216	1	169	32	4	9	0	0	0	1	0	0	0	0		
07:00	414	0	358	40	6	6	0	0	1	0	0	0	0	3		
08:00	505	0	433	45	6	7	0	0	8	0	1	0	2	3		
09:00	242	1	208	23	3	3	1	0	1	1	1	0	0	0		
10:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
11:00	18	0	14	1	2	1	0	0	0	0	0	0	0	0		
12:00 pm	24	0	20	3	0	1	0	0	0	0	0	0	0	0		
01:00	75	0	64	8	1	2	0	0	0	0	0	0	0	0		
02:00	342	0	280	40	5	10	0	0	4	2	1	0	0	0		
03:00	378	0	305	51	3	10	0	0	6	0	0	0	0	3		
04:00	354	2	303	34	4	7	0	0	2	0	0	0	0	2		
05:00	310	0	280	19	2	5	0	0	4	0	0	0	0	0		
06:00	376	1	345	23	2	3	0	0	1	0	1	0	0	0		
07:00	300	0	276	16	3	4	0	0	0	0	1	0	0	0		
08:00	176	0	168	5	2	1	0	0	0	0	0	0	0	0		
09:00	158	1	147	9	1	0	0	0	0	0	0	0	0	0		
10:00	115	0	104	8	2	1	0	0	0	0	0	0	0	0		
11:00	66	0	61	2	1	1	0	0	0	1	0	0	0	0		
Day Totals	4182	6	3621	379	51	72	1	*	27	7	5	*	2	11	*	*
Totals	9744	13	8421	938	90	168	3	1	63	14	11	0	3	19		
Percent		.1%	86.4%	9.6%	.9%	1.7%	.0%	.0%	.6%	.1%	.1%	.0%	.0%	.1%		

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Westbound Ln3

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/16	27	0	24	3	0	0	0	0	0	0	0	0	0	0		
01:00	10	0	9	1	0	0	0	0	0	0	0	0	0	0		
02:00	8	0	8	0	0	0	0	0	0	0	0	0	0	0		
03:00	10	0	8	2	0	0	0	0	0	0	0	0	0	0		
04:00	7	0	5	1	0	0	0	0	1	0	0	0	0	0		
05:00	32	0	28	3	0	0	0	0	0	1	0	0	0	0		
06:00	102	0	83	16	0	2	0	0	1	0	0	0	0	0		
07:00	221	1	197	17	0	3	1	1	0	0	0	0	1	0		
08:00	260	1	237	15	1	4	0	0	0	0	1	0	0	1		
09:00	191	1	167	18	1	2	0	0	2	0	0	0	0	0		
10:00	218	0	188	21	2	7	0	0	0	0	0	0	0	0		
11:00	231	0	203	23	1	2	0	0	2	0	0	0	0	0		
12:00 pm	254	0	225	26	0	1	0	0	2	0	0	0	0	0		
01:00	217	0	194	19	0	2	0	0	2	0	0	0	0	0		
02:00	243	0	205	30	1	5	1	0	1	0	0	0	0	0		
03:00	306	0	271	30	0	4	0	0	1	0	0	0	0	0		
04:00	295	0	266	24	0	3	0	0	2	0	0	0	0	0		
05:00	372	1	348	18	0	3	1	0	1	0	0	0	0	0		
06:00	332	1	309	14	2	0	0	0	3	1	0	0	0	2		
07:00	214	0	201	13	0	0	0	0	0	0	0	0	0	0		
08:00	133	1	126	3	0	3	0	0	0	0	0	0	0	0		
09:00	133	1	126	6	0	0	0	0	0	0	0	0	0	0		
10:00	105	0	97	6	0	2	0	0	0	0	0	0	0	0		
11:00	68	0	64	4	0	0	0	0	0	0	0	0	0	0		
Day Totals	3989	7	3589	313	8	43	3	1	18	2	1	*	1	3	*	*
12:00 06/17	20	0	19	1	0	0	0	0	0	0	0	0	0	0		
01:00	7	0	7	0	0	0	0	0	0	0	0	0	0	0		
02:00	10	0	8	2	0	0	0	0	0	0	0	0	0	0		
03:00	10	0	6	4	0	0	0	0	0	0	0	0	0	0		
04:00	7	0	5	1	0	1	0	0	0	0	0	0	0	0		
05:00	29	0	24	4	0	1	0	0	0	0	0	0	0	0		
06:00	91	0	81	8	0	1	0	0	0	1	0	0	0	0		
07:00	207	1	183	15	0	5	1	0	1	1	0	0	0	0		
08:00	252	0	220	23	0	7	1	0	0	0	0	0	0	1		
09:00	316	2	258	35	5	5	1	0	6	2	0	0	1	1		
10:00	329	2	274	35	5	6	0	0	2	1	0	0	1	3		
11:00	359	4	298	37	5	10	2	0	2	0	0	0	0	1		
12:00 pm	354	3	288	39	8	11	0	0	3	1	0	0	0	1		
01:00	309	5	252	34	7	6	1	0	2	1	0	0	0	1		
02:00	263	0	229	29	2	3	0	0	0	0	0	0	0	0		
03:00	313	1	268	37	0	4	1	1	1	0	0	0	0	0		
04:00	341	0	309	27	0	3	0	0	1	0	0	0	1	0		
05:00	399	3	366	26	1	1	1	0	1	0	0	0	0	0		
06:00	373	0	349	22	1	0	0	0	0	0	1	0	0	0		
07:00	262	0	242	17	0	1	0	0	2	0	0	0	0	0		
08:00	172	1	160	10	1	0	0	0	0	0	0	0	0	0		
09:00	168	1	161	6	0	0	0	0	0	0	0	0	0	0		
10:00	98	0	94	3	0	1	0	0	0	0	0	0	0	0		
11:00	69	0	63	5	0	1	0	0	0	0	0	0	0	0		
Day Totals	4758	23	4164	420	35	67	8	1	21	7	1	*	3	8	*	*
Totals	8747	30	7753	733	43	110	11	2	39	9	2	0	4	11		
Percent		.3%	88.6%	8.3%	.4%	1.2%	.1%	.0%	.4%	.1%	.0%	.0%	.0%	.1%		

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Westbound Ln4

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/16	12	0	9	1	2	0	0	0	0	0	0	0	0	0		
01:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	1	0	0	0	0	0	0	0	0	1	0	0	0	0		
04:00	3	0	2	0	0	0	0	0	0	1	0	0	0	0		
05:00	30	0	21	3	2	3	0	0	0	1	0	0	0	0		
06:00	64	0	54	2	6	2	0	0	0	0	0	0	0	0		
07:00	168	1	141	12	7	5	1	0	0	1	0	0	0	0		
08:00	192	0	165	13	6	7	0	0	1	0	0	0	0	0		
09:00	149	1	120	16	7	4	1	0	0	0	0	0	0	0		
10:00	118	0	92	11	5	9	0	0	0	1	0	0	0	0		
11:00	122	0	103	9	5	4	0	0	1	0	0	0	0	0		
12:00 pm	136	1	112	16	4	2	0	0	1	0	0	0	0	0		
01:00	148	0	114	25	5	4	0	0	0	0	0	0	0	0		
02:00	153	0	127	15	6	3	0	0	2	0	0	0	0	0		
03:00	196	0	156	26	7	7	0	0	0	0	0	0	0	0		
04:00	217	0	172	32	8	4	0	0	1	0	0	0	0	0		
05:00	284	2	249	21	6	2	0	0	3	0	1	0	0	0		
06:00	238	3	217	9	5	4	0	0	0	0	0	0	0	0		
07:00	133	0	116	10	4	2	0	0	0	1	0	0	0	0		
08:00	92	1	84	3	4	0	0	0	0	0	0	0	0	0		
09:00	56	0	47	7	2	0	0	0	0	0	0	0	0	0		
10:00	36	0	31	3	2	0	0	0	0	0	0	0	0	0		
11:00	26	0	22	2	2	0	0	0	0	0	0	0	0	0		
Day Totals	2575	9	2155	236	95	62	2	*	9	6	1	*	*	*	*	*
12:00 06/17	15	0	11	1	2	0	0	0	0	1	0	0	0	0		
01:00	3	0	2	1	0	0	0	0	0	0	0	0	0	0		
02:00	1	0	0	0	0	0	0	0	0	1	0	0	0	0		
03:00	2	0	1	0	0	0	0	0	0	1	0	0	0	0		
04:00	6	0	5	1	0	0	0	0	0	0	0	0	0	0		
05:00	23	0	17	4	2	0	0	0	0	0	0	0	0	0		
06:00	74	0	55	7	6	6	0	0	0	0	0	0	0	0		
07:00	154	1	124	15	5	7	1	0	1	0	0	0	0	0		
08:00	207	0	182	13	6	4	0	0	1	1	0	0	0	0		
09:00	266	1	225	17	5	10	1	0	3	0	1	0	0	3		
10:00	308	0	249	32	3	11	0	0	6	1	0	0	1	5		
11:00	333	1	270	39	4	8	1	0	5	1	3	0	0	1		
12:00 pm	365	0	292	47	4	8	1	1	7	1	1	0	0	3		
01:00	326	0	266	31	3	18	1	0	4	0	2	0	1	0		
02:00	143	0	109	23	4	5	1	0	0	1	0	0	0	0		
03:00	194	1	156	22	8	6	0	1	0	0	0	0	0	0		
04:00	233	1	200	18	9	4	0	0	1	0	0	0	0	0		
05:00	264	0	235	16	7	5	0	0	1	0	0	0	0	0		
06:00	278	1	261	10	1	5	0	0	0	0	0	0	0	0		
07:00	157	0	143	7	3	4	0	0	0	0	0	0	0	0		
08:00	111	0	103	5	3	0	0	0	0	0	0	0	0	0		
09:00	65	0	57	5	3	0	0	0	0	0	0	0	0	0		
10:00	40	0	34	2	2	1	0	0	0	1	0	0	0	0		
11:00	22	0	18	2	2	0	0	0	0	0	0	0	0	0		
Day Totals	3590	6	3015	318	82	102	6	2	29	9	7	*	2	12	*	*
Totals	6165	15	5170	554	177	164	8	2	38	15	8	0	2	12		
Percent		.2%	83.8%	8.9%	2.8%	2.6%	.1%	.0%	.6%	.2%	.1%	.0%	.0%	.1%		

City :Washington, D.C.
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Northbound Ln2

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	18	1	14	2	1	0	0	0	0	0	0	0	0	0		
01:00	5	0	5	0	0	0	0	0	0	0	0	0	0	0		
02:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
03:00	3	1	2	0	0	0	0	0	0	0	0	0	0	0		
04:00	17	0	16	1	0	0	0	0	0	0	0	0	0	0		
05:00	90	0	70	17	2	1	0	0	0	0	0	0	0	0		
06:00	145	0	131	13	0	1	0	0	0	0	0	0	0	0		
07:00	221	0	187	27	2	2	1	0	2	0	0	0	0	0		
08:00	300	1	262	31	2	3	0	0	0	0	1	0	0	0		
09:00	270	1	214	47	0	5	1	0	2	0	0	0	0	0		
10:00	184	0	143	29	1	9	2	0	0	0	0	0	0	0		
11:00	148	1	123	15	1	6	1	0	1	0	0	0	0	0		
12:00 pm	167	0	134	26	1	5	1	0	0	0	0	0	0	0		
01:00	154	0	120	27	1	4	1	0	1	0	0	0	0	0		
02:00	193	1	156	25	1	8	1	0	1	0	0	0	0	0		
03:00	171	0	126	37	0	5	1	0	2	0	0	0	0	0		
04:00	177	2	147	23	2	0	1	0	1	0	0	0	1	0		
05:00	233	2	210	17	2	1	0	0	1	0	0	0	0	0		
06:00	206	0	189	15	1	1	0	0	0	0	0	0	0	0		
07:00	224	2	211	9	1	1	0	0	0	0	0	0	0	0		
08:00	96	1	81	13	1	0	0	0	0	0	0	0	0	0		
09:00	94	0	88	4	0	2	0	0	0	0	0	0	0	0		
10:00	64	1	54	7	0	2	0	0	0	0	0	0	0	0		
11:00	33	0	28	5	0	0	0	0	0	0	0	0	0	0		
Day Totals	3214	14	2712	390	19	56	10	*	11	*	1	*	1	*	*	*
12:00 06/24	15	1	12	2	0	0	0	0	0	0	0	0	0	0		
01:00	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
02:00	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
03:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
04:00	15	0	11	4	0	0	0	0	0	0	0	0	0	0		
05:00	79	0	63	12	1	3	0	0	0	0	0	0	0	0		
06:00	160	0	135	21	1	3	0	0	0	0	0	0	0	0		
07:00	211	0	193	17	0	1	0	0	0	0	0	0	0	0		
08:00	288	0	251	29	1	4	0	0	2	0	1	0	0	0		
09:00	282	1	232	41	0	7	0	0	1	0	0	0	0	0		
10:00	169	3	129	30	0	5	1	0	1	0	0	0	0	0		
11:00	171	0	142	25	1	2	0	0	1	0	0	0	0	0		
12:00 pm	212	2	169	29	2	8	0	0	2	0	0	0	0	0		
01:00	170	2	136	25	2	4	0	0	1	0	0	0	0	0		
02:00	212	1	165	39	4	2	0	0	1	0	0	0	0	0		
03:00	162	4	138	15	1	4	0	0	0	0	0	0	0	0		
04:00	153	0	134	11	0	5	2	0	1	0	0	0	0	0		
05:00	179	0	161	17	0	1	0	0	0	0	0	0	0	0		
06:00	223	1	205	15	1	1	0	0	0	0	0	0	0	0		
07:00	230	2	206	16	3	0	0	0	2	0	1	0	0	0		
08:00	129	1	114	12	0	2	0	0	0	0	0	0	0	0		
09:00	87	0	79	6	0	2	0	0	0	0	0	0	0	0		
10:00	72	0	67	4	0	1	0	0	0	0	0	0	0	0		
11:00	52	0	47	4	1	0	0	0	0	0	0	0	0	0		
Day Totals	3286	18	2804	374	18	55	3	*	12	*	2	*	*	*	*	*
Totals	6500	32	5516	764	37	111	13	0	23	0	3	0	1	0		
Percent		.4%	84.8%	11.7%	.5%	1.7%	.2%	.0%	.3%	.0%	.0%	.0%	.0%	.0%		

City :Washington, D.C.
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Northbound Ln1

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	29	0	25	3	1	0	0	0	0	0	0	0	0	0		
01:00	14	0	11	2	1	0	0	0	0	0	0	0	0	0		
02:00	11	0	11	0	0	0	0	0	0	0	0	0	0	0		
03:00	11	0	9	2	0	0	0	0	0	0	0	0	0	0		
04:00	21	0	15	6	0	0	0	0	0	0	0	0	0	0		
05:00	129	0	97	25	1	6	0	0	0	0	0	0	0	0		
06:00	261	1	218	34	5	3	0	0	0	0	0	0	0	0		
07:00	405	1	343	36	9	10	4	0	1	1	0	0	0	0		
08:00	520	1	443	60	3	9	0	0	4	0	0	0	0	0		
09:00	455	4	370	56	10	10	3	0	2	0	0	0	0	0		
10:00	296	0	222	54	6	8	4	1	1	0	0	0	0	0		
11:00	243	2	191	34	4	6	3	1	2	0	0	0	0	0		
12:00 pm	343	4	248	68	10	9	1	0	2	0	0	0	0	1		
01:00	314	0	257	42	4	7	2	1	1	0	0	0	0	0		
02:00	346	1	274	57	4	6	2	0	1	0	0	0	1	0		
03:00	385	2	307	59	5	6	2	0	4	0	0	0	0	0		
04:00	315	3	265	37	4	2	0	0	3	0	1	0	0	0		
05:00	372	2	326	35	3	5	0	0	0	0	1	0	0	0		
06:00	399	1	355	34	5	3	0	0	1	0	0	0	0	0		
07:00	370	1	335	27	3	4	0	0	0	0	0	0	0	0		
08:00	214	0	198	15	1	0	0	0	0	0	0	0	0	0		
09:00	166	1	155	9	1	0	0	0	0	0	0	0	0	0		
10:00	155	0	140	11	3	1	0	0	0	0	0	0	0	0		
11:00	97	0	90	6	0	0	0	0	0	0	1	0	0	0		
Day Totals	5871	24	4905	712	83	95	21	3	22	1	3	*	1	1	*	*
12:00 06/24	44	1	32	8	2	1	0	0	0	0	0	0	0	0		
01:00	15	0	12	1	1	1	0	0	0	0	0	0	0	0		
02:00	14	0	13	1	0	0	0	0	0	0	0	0	0	0		
03:00	11	0	10	1	0	0	0	0	0	0	0	0	0	0		
04:00	25	0	20	4	0	1	0	0	0	0	0	0	0	0		
05:00	121	0	86	30	2	3	0	0	0	0	0	0	0	0		
06:00	244	1	201	36	1	4	1	0	0	0	0	0	0	0		
07:00	423	1	351	54	6	8	1	0	2	0	0	0	0	0		
08:00	560	2	464	75	8	5	0	0	5	0	1	0	0	0		
09:00	474	1	372	77	8	14	0	0	2	0	0	0	0	0		
10:00	338	1	270	53	5	8	0	0	1	0	0	0	0	0		
11:00	291	1	232	44	7	7	0	0	0	0	0	0	0	0		
12:00 pm	314	3	251	44	6	7	1	1	1	0	0	0	0	0		
01:00	316	2	252	54	1	4	1	1	1	0	0	0	0	0		
02:00	367	1	294	59	1	7	2	1	2	0	0	0	0	0		
03:00	358	0	300	47	3	4	2	0	1	0	0	0	0	1		
04:00	348	1	298	38	3	5	1	0	1	0	1	0	0	0		
05:00	376	0	324	34	7	7	0	0	4	0	0	0	0	0		
06:00	397	3	349	37	5	2	0	0	0	0	0	0	0	1		
07:00	380	0	353	25	1	0	0	0	1	0	0	0	0	0		
08:00	237	0	213	21	1	1	0	0	1	0	0	0	0	0		
09:00	184	1	163	20	0	0	0	0	0	0	0	0	0	0		
10:00	148	0	136	8	3	0	0	0	1	0	0	0	0	0		
11:00	86	0	77	6	2	1	0	0	0	0	0	0	0	0		
Day Totals	6071	19	5073	777	73	90	9	3	23	*	2	*	*	2	*	*
Totals	11942	43	9978	1489	156	185	30	6	45	1	5	0	1	3		
Percent		.3%	83.5%	12.4%	1.3%	1.5%	.2%	.0%	.3%	.0%	.0%	.0%	.0%	.0%		

City :Washington, D.C.
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Southbound Ln3

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	9	1	8	0	0	0	0	0	0	0	0	0	0	0		
01:00	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
02:00	2	0	1	0	0	1	0	0	0	0	0	0	0	0		
03:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0		
04:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0		
05:00	26	0	20	3	2	1	0	0	0	0	0	0	0	0		
06:00	99	0	83	12	1	1	1	0	1	0	0	0	0	0		
07:00	332	0	281	29	2	5	2	0	11	0	1	0	1	0		
08:00	508	0	429	52	3	9	1	0	12	0	1	0	1	0		
09:00	319	0	264	45	1	4	0	0	3	0	1	0	0	1		
10:00	175	1	142	22	1	6	0	0	3	0	0	0	0	0		
11:00	205	1	155	34	4	5	1	0	4	0	0	0	0	1		
12:00 pm	198	0	163	28	1	1	2	0	3	0	0	0	0	0		
01:00	200	1	145	40	2	7	0	1	3	1	0	0	0	0		
02:00	256	0	206	37	0	5	1	0	5	0	2	0	0	0		
03:00	381	0	300	57	0	10	2	0	10	0	1	0	1	0		
04:00	322	0	293	20	1	2	0	0	6	0	0	0	0	0		
05:00	393	0	346	36	0	3	0	0	7	0	1	0	0	0		
06:00	368	0	334	28	2	2	0	0	1	0	1	0	0	0		
07:00	204	1	180	21	0	1	0	0	1	0	0	0	0	0		
08:00	99	1	87	10	0	0	0	0	0	0	1	0	0	0		
09:00	71	0	67	3	1	0	0	0	0	0	0	0	0	0		
10:00	72	0	68	4	0	0	0	0	0	0	0	0	0	0		
11:00	41	0	33	8	0	0	0	0	0	0	0	0	0	0		
Day Totals	4294	6	3617	491	21	63	10	1	70	1	9	*	3	2	*	*
12:00 06/24	12	0	10	2	0	0	0	0	0	0	0	0	0	0		
01:00	8	0	8	0	0	0	0	0	0	0	0	0	0	0		
02:00	4	0	4	0	0	0	0	0	0	0	0	0	0	0		
03:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
04:00	10	0	7	2	0	1	0	0	0	0	0	0	0	0		
05:00	30	0	22	5	1	2	0	0	0	0	0	0	0	0		
06:00	104	1	86	15	1	1	0	0	0	0	0	0	0	0		
07:00	360	0	303	36	3	8	1	0	6	0	2	1	0	0		
08:00	468	0	389	63	0	8	0	0	7	0	1	0	0	0		
09:00	279	0	241	33	1	4	0	0	0	0	0	0	0	0		
10:00	205	1	164	30	1	8	1	0	0	0	0	0	0	0		
11:00	197	0	155	31	2	5	0	0	4	0	0	0	0	0		
12:00 pm	199	0	159	35	1	2	0	0	2	0	0	0	0	0		
01:00	232	0	182	35	2	7	2	0	1	0	2	0	1	0		
02:00	257	0	195	50	0	4	0	0	8	0	0	0	0	0		
03:00	348	1	301	36	2	2	1	0	2	0	2	1	0	0		
04:00	365	0	313	43	1	2	0	0	5	0	1	0	0	0		
05:00	411	0	358	44	1	2	0	0	4	0	1	0	1	0		
06:00	410	0	363	35	0	1	0	0	8	0	2	0	1	0		
07:00	244	0	212	26	1	0	0	0	5	0	0	0	0	0		
08:00	130	0	115	13	0	0	0	0	0	0	2	0	0	0		
09:00	85	1	77	5	1	1	0	0	0	0	0	0	0	0		
10:00	66	0	59	7	0	0	0	0	0	0	0	0	0	0		
11:00	46	2	41	3	0	0	0	0	0	0	0	0	0	0		
Day Totals	4471	6	3765	549	18	58	5	*	52	*	13	2	3	*	*	*
Totals	8765	12	7382	1040	39	121	15	1	122	1	22	2	6	2		
Percent		.1%	84.2%	11.8%	.4%	1.3%	.1%	.0%	1.3%	.0%	.2%	.0%	.0%	.0%		

City :Washington, D.C.
County :Washington, D.C.
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Southbound Ln4

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	32	0	29	3	0	0	0	0	0	0	0	0	0	0		
01:00	16	0	14	2	0	0	0	0	0	0	0	0	0	0		
02:00	7	0	7	0	0	0	0	0	0	0	0	0	0	0		
03:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0		
04:00	18	0	13	4	0	1	0	0	0	0	0	0	0	0		
05:00	42	1	32	7	1	1	0	0	0	0	0	0	0	0		
06:00	150	0	114	27	4	5	0	0	0	0	0	0	0	0		
07:00	432	4	359	39	11	7	2	1	3	1	1	1	0	3		
08:00	557	4	465	57	12	5	2	1	7	1	1	0	0	2		
09:00	442	3	374	44	9	10	0	0	2	0	0	0	0	0		
10:00	286	2	229	43	4	3	0	0	4	0	0	0	0	1		
11:00	277	3	203	52	5	9	1	0	3	0	0	0	0	1		
12:00 pm	304	2	230	52	5	7	5	0	2	0	0	0	0	1		
01:00	318	2	247	49	11	3	2	1	1	0	0	0	0	2		
02:00	409	0	321	66	8	7	1	1	1	0	2	0	0	2		
03:00	529	1	411	85	11	10	2	0	5	0	0	0	0	4		
04:00	499	2	410	65	7	7	1	0	4	0	2	0	0	1		
05:00	542	3	449	57	11	7	4	0	2	1	2	0	1	5		
06:00	517	0	437	48	10	5	1	0	5	2	3	0	0	6		
07:00	342	1	303	27	5	2	0	1	3	0	0	0	0	0		
08:00	171	1	146	20	4	0	0	0	0	0	0	0	0	0		
09:00	174	0	163	8	2	1	0	0	0	0	0	0	0	0		
10:00	114	2	101	8	2	1	0	0	0	0	0	0	0	0		
11:00	91	1	86	2	2	0	0	0	0	0	0	0	0	0		
Day Totals	6276	32	5149	766	124	91	21	5	42	5	11	1	1	28	*	*
12:00 06/24	29	0	24	3	2	0	0	0	0	0	0	0	0	0		
01:00	15	0	13	2	0	0	0	0	0	0	0	0	0	0		
02:00	4	0	3	1	0	0	0	0	0	0	0	0	0	0		
03:00	5	0	2	3	0	0	0	0	0	0	0	0	0	0		
04:00	19	0	14	5	0	0	0	0	0	0	0	0	0	0		
05:00	37	0	30	5	1	1	0	0	0	0	0	0	0	0		
06:00	139	4	108	24	3	0	0	0	0	0	0	0	0	0		
07:00	443	1	351	64	12	8	2	0	4	0	1	0	0	0		
08:00	558	0	463	58	16	10	2	0	5	0	1	0	0	3		
09:00	392	0	330	46	4	6	1	0	4	0	0	0	0	1		
10:00	285	1	223	39	7	7	0	0	3	2	1	0	0	2		
11:00	307	1	228	54	7	11	1	0	3	1	1	0	0	0		
12:00 pm	307	0	237	49	5	11	2	0	2	0	0	0	0	1		
01:00	316	3	248	45	7	7	1	0	4	0	0	0	0	1		
02:00	348	1	277	59	6	1	1	0	1	1	0	0	1	0		
03:00	487	3	376	78	9	13	0	0	6	0	0	0	1	1		
04:00	517	7	408	70	10	12	0	0	7	0	1	1	0	1		
05:00	628	3	532	55	12	5	3	0	12	0	4	0	1	1		
06:00	580	4	489	52	11	5	1	0	10	0	2	1	1	4		
07:00	349	5	296	39	3	1	0	0	4	0	1	0	0	0		
08:00	169	0	152	10	5	2	0	0	0	0	0	0	0	0		
09:00	173	0	144	24	2	1	0	0	2	0	0	0	0	0		
10:00	148	3	130	11	3	0	0	0	0	0	1	0	0	0		
11:00	90	2	80	6	2	0	0	0	0	0	0	0	0	0		
Day Totals	6345	38	5158	802	127	101	14	*	67	4	13	2	4	15	*	*
Totals	12621	70	10307	1568	251	192	35	5	109	9	24	3	5	43		
Percent		.5%	81.6%	12.4%	1.9%	1.5%	.2%	.0%	.8%	.0%	.1%	.0%	.0%	.3%		

City :Washington, D.C.
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Page : 1

Northbound Lnl

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
08:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 pm	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
03:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
08:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
09:00	5	0	3	0	0	2	0	0	0	0	0	0	0	0		
10:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0		
11:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	15	*	11	*	1	3	*	*	*	*	*	*	*	*	*	*
12:00 06/24	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
06:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
07:00	4	0	1	0	2	1	0	0	0	0	0	0	0	0		
08:00	5	0	4	0	1	0	0	0	0	0	0	0	0	0		
09:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0		
10:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
11:00	2	0	1	0	1	0	0	0	0	0	0	0	0	0		
12:00 pm	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
01:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
02:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
03:00	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
04:00	5	0	3	0	1	1	0	0	0	0	0	0	0	0		
05:00	7	0	7	0	0	0	0	0	0	0	0	0	0	0		
06:00	6	0	5	0	1	0	0	0	0	0	0	0	0	0		
07:00	9	0	8	0	1	0	0	0	0	0	0	0	0	0		
08:00	3	0	2	0	1	0	0	0	0	0	0	0	0	0		
09:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	60	*	47	*	10	3	*	*	*	*	*	*	*	*	*	*
Totals	75	0	58	0	11	6	0	0	0	0	0	0	0	0		
Percent		.0%	77.3%	.0%	14.6%	8.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%		

City :Washington, D.C.
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Northbound Ln2

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	52	0	48	2	0	2	0	0	0	0	0	0	0	0		
01:00	23	0	21	1	1	0	0	0	0	0	0	0	0	0		
02:00	15	0	14	0	0	1	0	0	0	0	0	0	0	0		
03:00	13	0	11	2	0	0	0	0	0	0	0	0	0	0		
04:00	6	0	4	2	0	0	0	0	0	0	0	0	0	0		
05:00	39	0	34	3	0	2	0	0	0	0	0	0	0	0		
06:00	134	0	115	13	2	4	0	0	0	0	0	0	0	0		
07:00	379	0	340	26	3	7	2	0	0	1	0	0	0	0		
08:00	536	1	487	34	2	8	0	0	2	0	0	0	0	2		
09:00	494	1	417	45	3	23	1	0	3	0	1	0	0	0		
10:00	349	0	296	38	5	7	0	0	2	1	0	0	0	0		
11:00	369	0	309	40	3	12	0	0	4	1	0	0	0	0		
12:00 pm	425	1	358	46	4	13	1	0	2	0	0	0	0	0		
01:00	422	0	357	44	2	14	3	0	2	0	0	0	0	0		
02:00	469	0	398	42	3	21	0	0	4	0	1	0	0	0		
03:00	591	1	526	45	1	12	1	0	5	0	0	0	0	0		
04:00	571	0	525	35	2	5	0	0	4	0	0	0	0	0		
05:00	521	1	471	35	5	8	0	0	1	0	0	0	0	0		
06:00	518	0	481	24	4	8	0	0	1	0	0	0	0	0		
07:00	371	0	345	19	1	6	0	0	0	0	0	0	0	0		
08:00	274	1	254	12	1	4	0	0	1	0	1	0	0	0		
09:00	223	0	208	9	2	4	0	0	0	0	0	0	0	0		
10:00	163	1	151	8	1	2	0	0	0	0	0	0	0	0		
11:00	149	1	140	6	1	1	0	0	0	0	0	0	0	0		
Day Totals	7106	8	6310	531	46	164	8	*	31	3	3	*	*	2	*	*
12:00 06/24	54	0	51	1	0	2	0	0	0	0	0	0	0	0		
01:00	28	0	26	1	1	0	0	0	0	0	0	0	0	0		
02:00	19	0	16	2	0	1	0	0	0	0	0	0	0	0		
03:00	11	0	9	2	0	0	0	0	0	0	0	0	0	0		
04:00	15	0	11	3	0	1	0	0	0	0	0	0	0	0		
05:00	43	0	35	5	0	3	0	0	0	0	0	0	0	0		
06:00	142	0	125	10	2	3	1	0	1	0	0	0	0	0		
07:00	379	1	341	29	1	6	0	0	1	0	0	0	0	0		
08:00	515	1	459	34	4	11	4	0	1	0	0	0	0	1		
09:00	501	1	442	39	3	11	1	0	3	1	0	0	0	0		
10:00	388	2	329	42	4	9	0	0	1	0	1	0	0	0		
11:00	411	0	351	41	2	13	2	0	1	0	0	1	0	0		
12:00 pm	409	2	333	50	4	15	1	0	4	0	0	0	0	0		
01:00	436	0	379	35	6	14	0	0	1	0	1	0	0	0		
02:00	463	0	390	47	3	13	1	0	9	0	0	0	0	0		
03:00	559	0	481	57	3	16	0	0	1	1	0	0	0	0		
04:00	554	1	490	46	1	10	0	0	5	0	0	0	0	1		
05:00	544	0	496	36	3	7	0	0	2	0	0	0	0	0		
06:00	526	1	476	32	6	8	1	0	1	0	0	0	0	1		
07:00	401	0	372	12	7	9	0	1	0	0	0	0	0	0		
08:00	302	1	281	14	1	5	0	0	0	0	0	0	0	0		
09:00	212	0	195	11	0	5	0	0	1	0	0	0	0	0		
10:00	181	0	175	2	2	2	0	0	0	0	0	0	0	0		
11:00	146	0	142	2	1	1	0	0	0	0	0	0	0	0		
Day Totals	7239	10	6405	553	54	165	11	1	32	2	2	1	*	3	*	*
Totals	14345	18	12715	1084	100	329	19	1	63	5	5	1	0	5		
Percent		.1%	88.6%	7.5%	.7%	2.2%	.1%	.0%	.4%	.0%	.0%	.0%	.0%	.0%		

City :Washington, D.C.
County :Washington, D.C.
Location:Western Ave, N of Chesapeake St

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Start Date: 06/23/2004
File I.D. : 4443C
Page : 1

Southbound Ln3

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	48	3	32	11	0	2	0	0	0	0	0	0	0	0		
01:00	27	1	20	6	0	0	0	0	0	0	0	0	0	0		
02:00	12	1	8	1	0	2	0	0	0	0	0	0	0	0		
03:00	11	0	7	4	0	0	0	0	0	0	0	0	0	0		
04:00	21	0	15	6	0	0	0	0	0	0	0	0	0	0		
05:00	100	4	64	22	1	9	0	0	0	0	0	0	0	0		
06:00	296	16	209	43	7	19	0	0	1	1	0	0	0	0		
07:00	477	6	350	82	5	25	1	0	7	1	0	0	0	0		
08:00	513	12	367	95	6	25	0	0	7	0	0	0	0	1		
09:00	438	8	302	98	4	25	0	0	1	0	0	0	0	0		
10:00	394	12	253	87	4	32	0	2	3	0	0	0	0	1		
11:00	400	7	281	83	6	18	0	0	4	0	0	0	0	1		
12:00 pm	437	13	310	83	4	23	0	0	3	0	0	0	0	1		
01:00	399	8	282	74	3	25	2	1	3	0	0	0	0	1		
02:00	516	3	399	83	5	23	0	0	1	0	0	0	0	2		
03:00	483	13	363	73	4	22	2	0	4	0	0	0	0	2		
04:00	492	12	366	89	3	16	0	0	5	0	0	0	0	1		
05:00	577	8	468	79	5	13	0	0	4	0	0	0	0	0		
06:00	563	13	456	71	3	13	0	0	4	0	1	0	0	2		
07:00	409	15	316	57	4	14	0	0	2	0	1	0	0	0		
08:00	307	6	245	42	3	9	0	0	1	0	0	0	0	1		
09:00	257	9	193	39	0	15	0	0	0	0	0	0	0	1		
10:00	216	9	157	39	3	8	0	0	0	0	0	0	0	0		
11:00	117	4	87	16	2	8	0	0	0	0	0	0	0	0		
Day Totals	7510	183	5550	1283	72	346	5	3	50	2	2	*	*	14	*	*
12:00 06/24	36	0	29	6	0	1	0	0	0	0	0	0	0	0		
01:00	33	2	19	10	0	2	0	0	0	0	0	0	0	0		
02:00	21	5	7	3	0	6	0	0	0	0	0	0	0	0		
03:00	10	0	6	3	1	0	0	0	0	0	0	0	0	0		
04:00	29	2	17	6	0	4	0	0	0	0	0	0	0	0		
05:00	96	3	64	19	3	6	0	0	1	0	0	0	0	0		
06:00	324	14	205	70	2	29	0	0	3	0	0	0	0	1		
07:00	480	9	310	108	7	31	4	2	7	0	0	0	1	1		
08:00	499	10	372	91	4	18	0	0	4	0	0	0	0	0		
09:00	493	7	369	76	6	27	2	0	6	0	0	0	0	0		
10:00	398	12	268	83	7	22	1	0	2	1	0	0	0	2		
11:00	464	6	323	95	8	27	2	0	3	0	0	0	0	0		
12:00 pm	438	15	295	80	6	32	1	0	8	0	0	0	0	1		
01:00	433	13	289	91	5	30	1	0	4	0	0	0	0	0		
02:00	472	22	309	102	2	30	0	0	7	0	0	0	0	0		
03:00	473	11	345	83	7	21	0	0	4	0	0	0	0	2		
04:00	530	13	411	85	3	13	0	0	5	0	0	0	0	0		
05:00	604	18	471	91	4	17	0	0	1	1	0	0	0	1		
06:00	570	10	463	77	3	14	0	0	3	0	0	0	0	0		
07:00	445	12	356	57	2	14	0	0	3	0	0	0	0	1		
08:00	278	5	211	43	5	12	0	0	2	0	0	0	0	0		
09:00	249	4	193	39	0	10	0	0	2	0	0	0	0	1		
10:00	201	7	154	30	1	8	1	0	0	0	0	0	0	0		
11:00	143	9	108	19	2	5	0	0	0	0	0	0	0	0		
Day Totals	7719	209	5594	1367	78	379	12	2	65	2	*	*	1	10	*	*
Totals	15229	392	11144	2650	150	725	17	5	115	4	2	0	1	24		
Percent		2.5%	73.1%	17.4%	.9%	4.7%	.1%	.0%	.7%	.0%	.0%	.0%	.0%	.1%		

City :Washington, D.C.
County :Washington, D.C.
Location:Western Ave, N of Chesapeake St

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File I.D. : 4443C
Page : 1

Southbound Ln4

Begin Time	Total	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13		
12:00 06/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0		
06:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0		
07:00	9	0	2	1	6	0	0	0	0	0	0	0	0	0		
08:00	15	0	5	3	6	0	1	0	0	0	0	0	0	0		
09:00	10	0	8	0	2	0	0	0	0	0	0	0	0	0		
10:00	11	0	9	0	0	2	0	0	0	0	0	0	0	0		
11:00	14	0	11	2	0	1	0	0	0	0	0	0	0	0		
12:00 pm	13	0	11	0	1	1	0	0	0	0	0	0	0	0		
01:00	11	0	11	0	0	0	0	0	0	0	0	0	0	0		
02:00	15	0	10	3	2	0	0	0	0	0	0	0	0	0		
03:00	23	0	18	4	1	0	0	0	0	0	0	0	0	0		
04:00	18	0	14	1	3	0	0	0	0	0	0	0	0	0		
05:00	17	1	13	2	0	1	0	0	0	0	0	0	0	0		
06:00	12	0	9	0	1	2	0	0	0	0	0	0	0	0		
07:00	12	0	12	0	0	0	0	0	0	0	0	0	0	0		
08:00	12	0	12	0	0	0	0	0	0	0	0	0	0	0		
09:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
10:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	202	1	152	17	24	7	1	*	*	*	*	*	*	*	*	*
12:00 06/24	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0		
06:00	3	0	1	0	2	0	0	0	0	0	0	0	0	0		
07:00	10	0	6	0	4	0	0	0	0	0	0	0	0	0		
08:00	20	1	10	2	6	1	0	0	0	0	0	0	0	0		
09:00	11	0	9	1	1	0	0	0	0	0	0	0	0	0		
10:00	11	1	7	2	0	1	0	0	0	0	0	0	0	0		
11:00	12	0	8	2	0	2	0	0	0	0	0	0	0	0		
12:00 pm	13	1	11	0	0	1	0	0	0	0	0	0	0	0		
01:00	10	0	9	0	1	0	0	0	0	0	0	0	0	0		
02:00	14	0	10	2	2	0	0	0	0	0	0	0	0	0		
03:00	15	1	12	2	0	0	0	0	0	0	0	0	0	0		
04:00	18	1	13	1	1	2	0	0	0	0	0	0	0	0		
05:00	27	0	23	2	0	2	0	0	0	0	0	0	0	0		
06:00	17	0	15	1	0	1	0	0	0	0	0	0	0	0		
07:00	12	0	10	0	2	0	0	0	0	0	0	0	0	0		
08:00	4	0	3	0	1	0	0	0	0	0	0	0	0	0		
09:00	5	0	5	0	0	0	0	0	0	0	0	0	0	0		
10:00	4	0	3	0	1	0	0	0	0	0	0	0	0	0		
11:00	3	0	3	0	0	0	0	0	0	0	0	0	0	0		
Day Totals	211	5	160	15	21	10	*	*	*	*	*	*	*	*	*	*
Totals	413	6	312	32	45	17	1	0	0	0	0	0	0	0		
Percent		1.4%	75.5%	7.7%	10.9%	4.1%	.2%	.0%	.0%	.0%	.0%	.0%	.0%	.0%		

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Dalecarlia Pkwy, N of Rockwood Pkwy, NB1
Location Code 31
County ..... Washington, D.C.
Recorder Set 06/16/04 12:01
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 16
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
02:00	0	9	0	1	1	0	0	0	0	0	0	0	0	11
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
05:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
06:00	0	19	4	0	1	0	0	0	0	0	0	0	0	24
07:00	0	68	11	1	0	1	0	0	0	0	0	0	0	81
08:00	0	189	29	3	4	0	0	0	0	0	0	0	0	225
09:00	1	289	26	2	5	1	0	0	0	0	0	0	0	324
10:00	0	253	34	1	7	1	0	0	0	0	0	0	0	296
11:00	1	208	33	2	10	3	0	1	0	0	0	0	0	258
12:00	1	205	26	0	7	2	0	0	0	0	0	0	0	241
13:00	1	254	18	0	11	0	0	1	1	0	0	0	0	286
14:00	0	236	28	0	5	1	0	1	0	0	0	0	0	271
15:00	0	233	24	2	5	4	0	1	0	0	0	0	0	269
16:00	0	306	32	0	7	1	0	0	0	0	0	0	0	346
17:00	0	325	31	0	5	0	0	1	0	0	0	0	0	362
18:00	0	328	23	0	6	0	0	0	0	0	0	0	0	357
19:00	0	315	15	0	1	0	0	0	0	0	0	0	0	331
20:00	0	243	15	2	1	0	0	0	0	0	0	0	0	261
21:00	0	147	6	0	0	0	0	0	0	0	0	0	0	153
22:00	0	114	5	1	1	0	0	0	0	0	0	0	0	121
23:00	0	82	4	0	0	0	0	0	0	0	0	0	0	86
00:00	0	71	1	0	0	0	0	0	0	0	0	0	0	72
Daily Totals	4	3912	371	15	78	14	0	5	1	0	0	0	0	4400
Percentage	0.1%	88.9%	8.4%	0.3%	1.8%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (324 vehicles)
PM Peak Hour ..... 16:00 to 17:00 (362 vehicles)

Thursday 06/17/04 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	1	18	1	0	0	0	0	0	0	0	0	0	0	20
02:00	0	8	0	1	0	0	0	0	1	0	0	0	0	10
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	0	5	0	0	0	0	0	0	1	0	0	0	0	6
06:00	0	18	4	0	0	1	0	0	0	0	0	0	0	23
07:00	0	70	11	3	5	0	0	0	0	0	0	0	0	89
08:00	1	235	19	2	5	0	0	0	0	0	0	0	0	262
09:00	0	307	30	2	5	0	0	2	0	0	0	0	0	346
10:00	1	274	28	0	7	2	0	0	2	0	0	0	0	314
11:00	0	207	36	0	12	2	0	0	0	0	0	0	0	257
12:00	0	219	41	1	2	4	0	0	0	0	0	0	0	267
13:00	1	232	36	1	9	0	0	1	0	0	0	0	0	280
14:00	0	230	31	1	6	1	0	1	0	0	0	0	0	270
15:00	0	254	28	2	14	4	0	0	1	0	0	0	0	303
16:00	1	305	40	0	7	2	0	0	0	0	0	0	0	355
17:00	1	342	35	0	7	0	0	0	0	0	0	0	0	385
18:00	1	291	21	0	7	0	0	0	0	0	0	0	0	320
19:00	0	301	25	1	2	0	0	0	0	0	0	0	0	329
20:00	1	215	13	1	3	0	0	0	0	0	0	0	0	233
21:00	0	165	3	0	1	0	0	0	0	0	0	0	0	169
22:00	0	127	7	0	1	0	0	0	0	0	0	0	0	135
23:00	0	74	2	0	0	0	0	0	0	0	0	0	0	76
00:00	1	56	0	0	1	0	0	0	1	0	0	0	0	59
Daily Totals	9	3959	411	15	94	16	0	4	6	0	0	0	0	4514
Percentage	0.2%	87.7%	9.1%	0.3%	2.1%	0.4%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (346 vehicles)
PM Peak Hour ..... 16:00 to 17:00 (385 vehicles)

24-Hour Moving Total

01:00-	4408	02:00-	4407	03:00-	4405	04:00-	4405	05:00-	4406	06:00-	4405	07:00-	4413	08:00-	4450
09:00-	4472	10:00-	4490	11:00-	4489	12:00-	4515	13:00-	4509	14:00-	4508	15:00-	4542	16:00-	4551
17:00-	4574	18:00-	4537	19:00-	4535	20:00-	4507	21:00-	4523	22:00-	4537	23:00-	4527	24:00-	4514

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	13	7871	782	30	172	30	0	9	7	0	0	0	0	8914
Percentage	0.1%	88.3%	8.8%	0.3%	1.9%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Dalecarlia Pkwy, N of Rockwood Pkwy, NB2
Location Code 311
County ..... Washington, D.C.
Recorder Set 06/16/04 11:32
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 8
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	18	1	0	1	0	0	0	0	0	0	0	0	20
02:00	0	13	1	1	1	0	0	0	0	0	0	0	0	16
03:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
04:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
05:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
06:00	0	22	2	0	1	1	0	0	0	0	0	0	0	26
07:00	0	45	5	0	0	0	0	0	0	0	0	0	0	50
08:00	0	128	14	1	1	0	0	0	0	0	0	0	0	144
09:00	0	273	25	0	3	0	0	0	0	0	0	0	0	301
10:00	1	174	21	0	2	0	0	0	0	0	0	0	0	198
11:00	1	128	12	0	5	2	0	0	0	0	0	0	0	148
12:00	1	99	21	0	4	1	1	0	0	0	0	0	0	127
13:00	0	133	17	0	2	0	0	0	1	0	0	0	0	153
14:00	0	139	15	0	4	0	0	0	0	0	0	0	0	158
15:00	0	133	23	0	5	1	0	1	0	0	0	0	0	163
16:00	0	187	24	0	8	0	0	0	0	0	0	0	0	219
17:00	0	178	13	1	4	0	0	1	0	0	0	0	0	197
18:00	1	188	15	0	2	0	0	0	0	0	0	0	0	206
19:00	1	211	8	0	3	0	0	1	0	0	0	0	0	224
20:00	0	145	11	1	0	0	0	1	0	0	0	0	0	158
21:00	0	98	5	0	1	0	0	0	0	0	0	0	0	104
22:00	0	81	2	0	1	0	0	0	2	0	0	0	0	86
23:00	0	82	1	0	0	0	0	0	0	0	0	0	0	83
00:00	0	65	3	0	0	0	0	0	0	0	0	0	0	68
Daily Totals	5	2559	243	4	48	5	1	4	3	0	0	0	0	2872
Percentage	0.2%	89.1%	8.5%	0.1%	1.7%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (301 vehicles)
PM Peak Hour ..... 18:00 to 19:00 (224 vehicles)

Thursday 06/17/04 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	22	0	0	0	0	0	0	0	0	0	0	0	22
02:00	0	6	1	1	0	0	0	0	1	0	0	0	0	9
03:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
04:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	9	1	0	1	0	0	0	1	0	0	0	0	12
06:00	0	18	5	0	0	0	0	0	0	0	0	0	0	23
07:00	0	45	7	0	1	0	0	0	0	0	0	0	0	53
08:00	0	119	13	1	1	0	0	0	0	0	0	0	0	134
09:00	0	241	16	1	3	1	0	2	0	0	0	0	0	264
10:00	1	204	16	0	3	0	0	2	0	0	0	0	0	226
11:00	1	135	11	0	5	1	0	1	0	0	0	0	0	154
12:00	0	148	20	0	5	3	0	0	0	0	0	0	0	176
13:00	0	148	26	0	6	1	1	0	0	0	0	0	0	182
14:00	0	141	17	0	8	1	0	0	0	0	0	0	0	167
15:00	0	159	16	1	5	2	0	0	0	0	0	0	0	183
16:00	1	202	19	0	6	0	0	1	0	0	0	0	0	229
17:00	1	179	15	0	6	0	0	1	0	0	0	0	0	202
18:00	0	195	13	0	1	0	0	0	0	0	0	0	0	209
19:00	1	211	12	0	4	0	0	1	0	0	0	0	0	229
20:00	0	180	8	1	0	0	0	1	0	0	0	0	0	190
21:00	0	122	5	0	1	0	0	0	0	0	0	0	0	128
22:00	1	84	7	0	1	0	0	0	0	0	0	0	0	93
23:00	0	84	2	0	0	0	0	0	0	0	0	0	0	86
00:00	0	67	3	0	0	0	0	0	1	0	0	0	0	71
Daily Totals	6	2730	234	5	57	9	1	9	3	0	0	0	0	3054
Percentage	0.2%	89.4%	7.7%	0.2%	1.9%	0.3%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (264 vehicles)
PM Peak Hour ..... 15:00 to 16:00 (229 vehicles)

24-Hour Moving Total

01:00-	2874	02:00-	2867	03:00-	2865	04:00-	2864	05:00-	2868	06:00-	2865	07:00-	2868	08:00-	2858
09:00-	2821	10:00-	2849	11:00-	2855	12:00-	2904	13:00-	2933	14:00-	2942	15:00-	2962	16:00-	2972
17:00-	2977	18:00-	2980	19:00-	2985	20:00-	3017	21:00-	3041	22:00-	3048	23:00-	3051	24:00-	3054

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	11	5289	477	9	105	14	2	13	6	0	0	0	0	5926
Percentage	0.2%	89.3%	8.0%	0.2%	1.8%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Dalecarlia Pkwy, N of Rockwood Pkwy, SB3
Location Code 333
County ..... Washington, D.C.
Recorder Set 06/16/04 11:04
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 9
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	26	1	0	1	0	0	0	0	0	0	0	0	28
02:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
04:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
05:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
06:00	0	26	4	0	0	0	0	0	1	0	0	0	0	31
07:00	0	60	11	0	3	0	0	0	0	0	1	0	0	75
08:00	1	166	24	0	4	0	1	1	0	0	0	0	0	197
09:00	1	195	21	0	8	1	0	0	0	0	0	0	0	226
10:00	0	168	18	1	10	0	0	0	0	0	0	0	0	197
11:00	0	138	26	0	14	1	0	1	0	0	0	0	0	180
12:00	0	151	28	0	9	0	0	1	0	0	0	0	0	189
13:00	0	189	17	0	7	0	0	1	0	0	0	0	0	214
14:00	0	151	17	0	4	0	0	0	0	0	0	0	0	172
15:00	0	152	16	0	8	2	0	0	0	0	0	0	0	178
16:00	0	218	17	0	4	0	0	0	0	0	0	0	0	239
17:00	0	198	13	0	2	0	0	1	0	0	0	0	0	214
18:00	1	301	16	0	1	0	0	0	0	0	0	0	0	319
19:00	0	304	9	1	1	0	0	0	0	0	0	0	0	315
20:00	0	183	11	0	1	0	0	0	1	0	0	0	0	196
21:00	0	114	7	0	1	0	0	0	1	0	0	0	0	123
22:00	0	120	4	0	0	0	0	0	0	0	0	0	0	124
23:00	0	91	4	0	1	0	0	0	0	0	0	0	0	96
00:00	0	53	1	0	0	0	0	0	0	0	0	0	0	54
Daily Totals	3	3040	268	2	79	4	1	5	3	0	1	0	0	3406
Percentage	0.1%	89.3%	7.9%	0.1%	2.3%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (226 vehicles)
PM Peak Hour ..... 17:00 to 18:00 (319 vehicles)

Thursday 06/17/04 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	20	1	0	0	0	0	0	1	0	0	0	0	22
02:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
03:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
04:00	0	8	3	0	0	0	0	0	0	0	0	0	0	11
05:00	0	7	0	0	1	0	0	0	0	0	0	0	0	8
06:00	0	33	2	0	3	0	0	0	0	0	0	0	0	38
07:00	0	92	11	0	3	0	0	0	1	0	0	0	0	107
08:00	2	174	26	1	6	0	0	0	0	0	0	0	0	209
09:00	1	193	14	0	11	0	0	0	0	0	0	0	0	219
10:00	1	175	15	0	10	0	0	1	0	0	0	0	0	202
11:00	1	159	20	0	8	2	0	1	0	0	0	0	0	191
12:00	0	160	21	0	6	0	2	0	1	0	0	0	0	190
13:00	0	203	19	0	5	0	0	0	1	0	0	0	0	228
14:00	0	164	15	0	6	0	0	1	0	0	0	0	0	186
15:00	0	183	23	0	6	1	2	0	1	0	0	0	0	216
16:00	0	192	23	2	4	0	0	0	0	0	0	0	0	221
17:00	0	247	18	1	4	0	0	1	0	0	0	0	0	271
18:00	0	277	18	0	1	0	0	1	0	0	0	0	0	297
19:00	0	320	15	0	5	0	0	0	0	0	0	0	0	340
20:00	0	181	14	0	1	0	0	1	0	0	0	0	0	197
21:00	1	148	6	0	2	0	0	0	0	0	0	0	0	157
22:00	0	113	5	0	0	0	0	0	0	0	0	0	0	118
23:00	0	97	2	0	2	0	0	0	0	0	0	0	0	101
00:00	0	40	2	0	0	0	0	0	0	0	0	0	0	42
Daily Totals	6	3202	276	4	85	3	4	6	5	0	0	0	0	3591
Percentage	0.2%	89.2%	7.7%	0.1%	2.4%	0.1%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (219 vehicles)
PM Peak Hour ..... 18:00 to 19:00 (340 vehicles)

24-Hour Moving Total

01:00-	3400	02:00-	3405	03:00-	3400	04:00-	3403	05:00-	3400	06:00-	3407	07:00-	3439	08:00-	3451
09:00-	3444	10:00-	3449	11:00-	3460	12:00-	3461	13:00-	3475	14:00-	3489	15:00-	3527	16:00-	3509
17:00-	3566	18:00-	3544	19:00-	3569	20:00-	3570	21:00-	3604	22:00-	3598	23:00-	3603	24:00-	3591

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	9	6242	544	6	164	7	5	11	8	0	1	0	0	6997
Percentage	0.1%	89.2%	7.8%	0.1%	2.3%	0.1%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

Axle Classification/Volume Report

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Location ..... Dalecarlia Pkwy, N of Rockwood Pkwy, SB4
Location Code 33
County ..... Washington, D.C.
Recorder Set 06/16/04 11:10
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 11
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	1	21	0	0	1	0	0	0	1	0	0	0	0	24
02:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
03:00	1	7	0	0	0	0	0	0	0	0	0	0	0	8
04:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
06:00	1	40	2	0	1	0	0	0	0	0	0	0	0	44
07:00	1	174	12	0	0	0	0	1	0	0	0	0	0	188
08:00	2	292	25	0	13	0	0	0	0	0	0	0	0	332
09:00	0	272	22	2	5	1	1	1	0	0	0	0	0	304
10:00	2	213	30	1	7	1	0	1	0	0	0	0	0	255
11:00	2	204	24	0	8	1	1	0	1	0	0	0	0	241
12:00	0	182	25	1	10	0	1	0	1	0	0	0	0	220
13:00	0	212	36	1	3	0	0	1	0	0	0	0	0	253
14:00	1	206	22	0	2	1	2	0	0	0	0	0	0	234
15:00	0	220	21	1	6	0	0	1	0	0	0	0	0	249
16:00	0	263	25	2	7	0	1	0	0	0	0	0	0	298
17:00	0	257	33	3	3	1	0	0	0	0	0	0	0	297
18:00	2	364	21	1	3	0	0	2	0	0	0	0	0	393
19:00	1	323	21	0	3	0	0	0	0	0	0	0	0	348
20:00	1	211	16	0	0	0	0	1	0	0	0	0	0	229
21:00	1	116	1	0	3	0	0	0	1	0	0	0	0	122
22:00	0	100	9	0	0	0	0	0	0	0	0	0	0	109
23:00	0	92	6	0	2	0	0	0	0	0	0	0	0	100
00:00	0	56	5	0	0	0	0	0	0	0	0	0	0	61
Daily Totals	16	3848	359	12	77	5	6	8	4	0	0	0	0	4335
Percentage	0.4%	88.8%	8.3%	0.3%	1.8%	0.1%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 07:00 to 08:00 (332 vehicles)
PM Peak Hour ..... 17:00 to 18:00 (393 vehicles)

Thursday 06/17/04 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
02:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
03:00	0	4	0	0	0	0	0	1	0	0	0	0	0	5
04:00	0	6	2	0	0	0	0	0	1	0	0	0	0	9
05:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
06:00	1	50	6	1	2	0	0	0	0	0	0	0	0	60
07:00	0	190	15	0	6	0	0	0	0	0	1	0	0	212
08:00	1	271	29	1	11	1	1	1	0	0	0	0	0	316
09:00	1	313	30	1	3	1	1	1	1	0	0	0	0	352
10:00	1	227	35	0	7	0	2	0	0	0	0	0	0	272
11:00	0	198	29	1	6	3	0	0	0	0	0	0	0	237
12:00	1	188	23	0	4	0	1	0	0	0	0	0	0	217
13:00	1	216	29	0	8	2	2	1	1	0	0	0	0	260
14:00	0	207	23	0	7	0	1	0	0	0	0	0	0	238
15:00	2	239	25	1	1	1	2	1	1	0	0	0	0	273
16:00	1	243	36	2	2	1	1	0	1	0	0	0	0	287
17:00	0	312	23	1	2	0	0	0	0	0	0	0	0	338
18:00	1	364	22	0	4	0	0	0	0	0	0	0	0	391
19:00	2	387	29	0	3	0	0	0	0	0	0	0	0	421
20:00	0	221	21	0	1	0	0	1	0	0	0	0	0	244
21:00	0	145	9	1	2	0	0	0	0	0	0	0	0	157
22:00	1	137	8	2	0	0	0	0	0	0	0	0	0	148
23:00	0	92	7	0	1	0	0	0	1	0	0	0	0	101
00:00	0	54	2	0	1	0	0	0	0	0	0	0	0	57
Daily Totals	13	4097	405	11	71	9	11	6	6	0	1	0	0	4630
Percentage	0.3%	88.5%	8.7%	0.2%	1.5%	0.2%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (352 vehicles)
PM Peak Hour ..... 18:00 to 19:00 (421 vehicles)

24-Hour Moving Total

01:00-	4325	02:00-	4328	03:00-	4325	04:00-	4328	05:00-	4326	06:00-	4342	07:00-	4366	08:00-	4350
09:00-	4398	10:00-	4415	11:00-	4411	12:00-	4408	13:00-	4415	14:00-	4419	15:00-	4443	16:00-	4432
17:00-	4473	18:00-	4471	19:00-	4544	20:00-	4559	21:00-	4594	22:00-	4633	23:00-	4634	24:00-	4630

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	29	7945	764	23	148	14	17	14	10	0	1	0	0	8965
Percentage	0.3%	88.6%	8.5%	0.3%	1.7%	0.2%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Macarthur Blvd, N of Loughboro Rd, NB1
Location Code 11
County ..... Washington, D.C.
Recorder Set 06/15/04 14:15
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 2
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	22	3	0	1	0	0	0	0	0	0	0	0	26
02:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
03:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
05:00	1	16	2	0	0	0	0	0	0	0	0	0	0	19
06:00	0	73	22	1	2	3	0	0	0	0	0	0	0	101
07:00	0	159	17	1	5	21	1	3	0	1	0	0	0	208
08:00	3	211	11	0	6	30	2	0	0	0	0	0	0	263
09:00	1	232	21	2	4	36	2	5	0	1	0	0	0	304
10:00	0	193	32	0	5	34	0	0	0	0	1	0	0	265
11:00	0	142	23	4	9	15	1	1	0	0	1	0	0	196
12:00	1	126	20	0	5	23	0	1	0	0	1	0	0	177
13:00	1	146	26	3	6	27	0	3	0	2	1	0	0	215
14:00	0	131	25	0	6	20	1	3	0	0	0	0	0	186
15:00	1	190	29	2	7	25	1	1	0	1	0	0	0	257
16:00	0	188	27	0	7	17	1	0	0	0	0	0	1	241
17:00	0	218	26	2	6	15	0	1	0	0	0	0	0	268
18:00	0	237	12	2	4	44	0	2	0	0	1	0	0	302
19:00	0	191	11	2	5	58	0	0	0	0	0	0	0	267
20:00	1	214	13	1	1	28	0	1	0	0	1	0	0	260
21:00	1	126	8	0	0	7	0	0	0	0	0	0	0	142
22:00	0	107	5	0	0	7	0	1	0	0	0	0	0	120
23:00	0	73	4	0	1	5	0	0	0	0	0	0	0	83
00:00	0	52	2	0	0	9	0	0	0	0	0	0	0	63
Daily Totals	10	3066	341	20	81	424	9	22	0	5	6	0	1	3985
Percentage	0.3%	76.9%	8.6%	0.5%	2.0%	10.6%	0.2%	0.6%	0.0%	0.1%	0.2%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (304 vehicles)
PM Peak Hour ..... 17:00 to 18:00 (302 vehicles)

Thursday 06/17/04 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	1	10	3	0	0	1	1	0	0	0	0	0	0	16
02:00	0	6	0	0	0	1	0	0	0	0	0	0	0	7
03:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	8	3	0	2	1	0	0	0	0	0	0	0	14
07:00	3	68	11	3	5	6	1	0	0	0	0	0	0	97
08:00	2	178	12	1	6	16	0	7	0	0	0	0	0	222
09:00	4	218	20	4	10	49	1	2	1	1	1	0	0	311
10:00	2	212	23	0	9	39	0	2	0	0	1	0	0	288
11:00	1	155	18	1	8	19	2	1	1	0	1	0	1	208
12:00	1	154	24	2	5	15	1	0	0	1	0	0	0	203
13:00	1	161	32	0	7	7	2	0	0	1	0	0	0	211
14:00	1	128	21	4	11	19	1	2	2	2	0	0	1	192
15:00	1	153	26	1	6	32	1	2	1	1	1	0	0	225
16:00	0	193	26	0	5	24	0	2	0	2	1	0	1	254
17:00	1	203	26	0	7	28	0	1	0	1	1	0	0	268
18:00	1	282	22	2	4	4	0	2	0	0	0	0	1	318
19:00	2	240	20	2	0	1	0	2	0	0	0	0	0	267
20:00	0	257	20	1	1	0	0	1	0	0	0	0	0	280
21:00	1	170	8	0	2	0	0	1	1	0	0	0	0	183
22:00	0	123	6	0	0	0	0	0	0	0	0	0	0	129
23:00	1	72	2	0	4	0	0	0	0	0	0	0	0	79
00:00	0	50	8	0	1	0	0	0	0	0	0	0	0	59
Daily Totals	23	3048	334	21	93	262	10	25	6	9	6	0	4	3841
Percentage	0.6%	79.4%	8.7%	0.5%	2.4%	6.8%	0.3%	0.7%	0.2%	0.2%	0.2%	0.0%	0.1%	

AM Peak Hour ..... 08:00 to 09:00 (311 vehicles)
PM Peak Hour ..... 17:00 to 18:00 (318 vehicles)

24-Hour Moving Total

01:00-	3975	02:00-	3973	03:00-	3974	04:00-	3968	05:00-	3951	06:00-	3864	07:00-	3753	08:00-	3712
09:00-	3719	10:00-	3742	11:00-	3754	12:00-	3780	13:00-	3776	14:00-	3782	15:00-	3750	16:00-	3763
17:00-	3763	18:00-	3779	19:00-	3779	20:00-	3799	21:00-	3840	22:00-	3849	23:00-	3845	24:00-	3841

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	33	6114	675	41	174	686	19	47	6	14	12	0	5	7826
Percentage	0.4%	78.1%	8.6%	0.5%	2.2%	8.8%	0.2%	0.6%	0.1%	0.2%	0.2%	0.0%	0.1%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Macarthur Blvd, N of Loughboro Rd, NB2
Location Code 111
County ..... Washington, D.C.
Recorder Set 06/15/04 15:14
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 15
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	1	4	0	0	1	0	0	0	0	0	0	0	0	6
05:00	0	13	2	0	1	0	0	0	0	0	0	0	0	16
06:00	0	59	12	0	3	1	0	0	0	0	0	0	0	75
07:00	0	106	12	0	1	6	0	0	0	0	0	0	0	125
08:00	0	172	11	0	2	5	2	0	0	0	1	0	0	193
09:00	1	208	21	1	0	9	0	3	0	0	0	0	0	243
10:00	1	163	14	0	2	6	1	2	0	1	1	0	0	191
11:00	0	113	19	2	4	6	0	1	0	0	0	0	0	145
12:00	0	112	15	1	3	5	1	0	0	0	0	0	2	139
13:00	0	127	18	0	3	6	0	1	0	0	0	0	0	155
14:00	1	110	16	0	3	10	0	1	0	0	0	0	0	141
15:00	2	105	16	0	4	14	0	1	0	0	0	0	0	142
16:00	2	141	16	0	1	7	0	0	0	0	0	0	0	167
17:00	0	158	22	0	4	15	0	1	0	0	0	0	0	200
18:00	1	151	11	0	0	7	0	1	0	0	0	0	0	171
19:00	1	160	9	0	1	6	0	0	0	0	0	0	0	177
20:00	0	155	11	0	1	5	0	0	0	0	0	0	0	172
21:00	0	72	3	0	1	2	0	0	0	0	0	0	0	78
22:00	0	50	5	0	0	1	0	0	0	0	0	0	0	56
23:00	0	49	2	0	0	0	0	0	0	0	0	0	0	51
00:00	0	25	1	0	0	0	0	0	0	0	0	0	0	26
Daily Totals	10	2268	237	4	35	111	4	11	0	1	2	0	2	2685
Percentage	0.4%	84.5%	8.8%	0.1%	1.3%	4.1%	0.1%	0.4%	0.0%	0.0%	0.1%	0.0%	0.1%	

AM Peak Hour ..... 08:00 to 09:00 (243 vehicles)
PM Peak Hour ..... 16:00 to 17:00 (200 vehicles)

Thursday 06/17/04 Channel: 1 Direction: N Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	7	2	0	1	2	1	0	0	0	0	0	0	13
05:00	0	29	1	0	0	1	0	0	0	0	0	0	0	31
06:00	0	120	18	0	1	4	0	3	0	0	1	0	0	147
07:00	0	159	22	0	8	10	1	1	0	0	1	0	0	202
08:00	0	148	13	1	2	8	0	4	0	0	0	0	0	176
09:00	0	230	27	1	2	6	2	1	0	0	0	0	0	269
10:00	0	215	15	0	1	10	0	0	0	0	1	0	1	243
11:00	0	110	14	1	4	10	1	2	0	0	0	0	1	143
12:00	0	108	13	1	5	7	1	2	0	0	0	0	1	138
13:00	1	130	22	0	2	8	0	1	1	0	1	0	0	166
14:00	1	125	15	1	3	6	1	3	0	0	0	0	0	155
15:00	0	136	26	0	3	5	1	2	1	1	0	0	0	175
16:00	0	163	22	0	3	9	0	0	0	0	0	0	1	198
17:00	1	134	13	0	0	12	0	0	0	0	0	0	0	160
18:00	1	178	14	0	0	8	0	2	0	0	0	0	0	203
19:00	0	200	9	0	2	4	0	1	0	0	0	0	0	216
20:00	0	199	6	0	0	4	0	3	0	0	0	0	0	212
21:00	0	83	1	0	0	3	1	0	0	0	0	0	0	88
22:00	0	61	2	0	1	0	0	1	0	0	0	0	0	65
23:00	0	51	2	0	0	1	0	0	0	1	0	0	0	55
00:00	0	30	0	0	1	1	0	0	0	0	0	0	0	32
Daily Totals	4	2633	257	5	39	119	9	26	2	2	4	0	4	3104
Percentage	0.1%	84.8%	8.3%	0.2%	1.3%	3.8%	0.3%	0.8%	0.1%	0.1%	0.1%	0.0%	0.1%	

AM Peak Hour ..... 08:00 to 09:00 (269 vehicles)
PM Peak Hour ..... 18:00 to 19:00 (216 vehicles)

24-Hour Moving Total

01:00-	2682	02:00-	2683	03:00-	2686	04:00-	2693	05:00-	2708	06:00-	2780	07:00-	2857	08:00-	2840
09:00-	2866	10:00-	2918	11:00-	2916	12:00-	2915	13:00-	2926	14:00-	2940	15:00-	2973	16:00-	3004
17:00-	2964	18:00-	2996	19:00-	3035	20:00-	3075	21:00-	3085	22:00-	3094	23:00-	3098	24:00-	3104

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	14	4901	494	9	74	230	13	37	2	3	6	0	6	5789
Percentage	0.2%	84.7%	8.5%	0.2%	1.3%	4.0%	0.2%	0.6%	0.0%	0.1%	0.1%	0.0%	0.1%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Macarthur Blvd, N of Loughboro Rd, SB3
Location Code 133
County ..... Washington, D.C.
Recorder Set 06/15/04 16:01
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 34
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	1	14	0	0	0	0	0	0	0	0	0	0	0	15
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:00	1	3	1	0	1	0	0	0	0	0	0	0	0	6
06:00	1	16	3	0	2	0	0	0	0	0	0	0	0	22
07:00	3	72	16	0	7	1	0	0	0	0	0	0	0	99
08:00	3	224	37	0	3	1	0	0	0	0	0	0	0	268
09:00	1	268	38	0	3	0	1	0	0	0	0	0	0	311
10:00	0	174	26	1	5	0	0	0	0	0	0	0	0	206
11:00	1	151	25	1	5	0	1	3	0	0	0	0	0	187
12:00	1	168	40	0	5	1	0	2	0	0	0	0	0	217
13:00	1	161	24	2	4	0	1	2	0	0	0	0	0	195
14:00	0	149	27	0	6	0	0	2	0	0	0	0	0	184
15:00	0	133	25	1	11	2	0	2	0	0	0	0	0	174
16:00	0	283	46	2	6	0	0	0	0	0	0	0	0	337
17:00	0	228	29	0	4	4	0	1	0	0	0	0	0	266
18:00	0	242	22	0	4	1	0	1	0	0	0	0	0	270
19:00	0	281	18	0	3	0	0	0	0	0	0	0	0	302
20:00	0	176	20	0	2	0	0	2	0	0	0	0	0	200
21:00	1	85	7	0	0	1	0	0	0	0	0	0	0	94
22:00	1	68	4	0	0	1	0	0	1	0	0	0	0	75
23:00	0	34	2	0	0	1	0	0	0	0	0	0	0	37
00:00	1	15	1	0	0	0	0	0	0	0	0	0	0	17
Daily Totals	16	2957	412	7	71	13	3	15	1	0	0	0	0	3495
Percentage	0.5%	84.6%	11.8%	0.2%	2.0%	0.4%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (311 vehicles)
PM Peak Hour ..... 15:00 to 16:00 (337 vehicles)

Thursday 06/17/04 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
02:00	1	6	0	0	1	0	0	0	0	0	0	0	0	8
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	1	5	0	0	0	0	0	0	0	0	0	0	0	6
06:00	0	21	3	0	3	0	0	0	0	0	0	0	0	27
07:00	2	75	18	0	4	1	1	0	0	0	0	0	0	101
08:00	1	231	29	0	9	0	0	0	0	0	0	0	0	270
09:00	1	222	32	0	4	1	0	0	0	0	0	0	0	260
10:00	0	201	31	1	5	3	0	2	1	0	0	0	0	244
11:00	0	207	33	0	3	0	1	0	0	0	0	0	0	244
12:00	2	171	42	1	3	0	1	0	0	0	0	0	0	220
13:00	0	151	37	0	7	1	0	0	0	0	0	0	0	196
14:00	3	166	24	1	6	3	2	1	1	0	0	0	0	207
15:00	2	212	28	0	12	0	1	2	0	0	0	0	0	257
16:00	1	297	47	2	8	3	0	2	0	0	0	0	0	360
17:00	1	243	41	0	5	1	0	1	0	0	0	0	0	292
18:00	1	256	22	0	4	1	0	0	0	0	0	0	0	284
19:00	1	258	26	0	4	0	0	0	0	0	0	0	0	289
20:00	0	175	13	0	4	0	0	2	0	0	0	0	0	194
21:00	0	81	7	0	1	0	0	0	0	0	0	0	0	89
22:00	1	82	3	0	0	0	0	0	0	0	0	0	0	86
23:00	0	37	4	0	1	1	0	0	0	0	0	0	0	43
00:00	1	26	0	0	0	1	0	0	0	0	0	0	0	28
Daily Totals	19	3138	441	5	84	16	6	10	2	0	0	0	0	3721
Percentage	0.5%	84.3%	11.9%	0.1%	2.3%	0.4%	0.2%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 07:00 to 08:00 (270 vehicles)
PM Peak Hour ..... 15:00 to 16:00 (360 vehicles)

24-Hour Moving Total

01:00-	3491	02:00-	3493	03:00-	3490	04:00-	3491	05:00-	3491	06:00-	3496	07:00-	3498	08:00-	3500
09:00-	3449	10:00-	3487	11:00-	3544	12:00-	3547	13:00-	3548	14:00-	3571	15:00-	3654	16:00-	3677
17:00-	3703	18:00-	3717	19:00-	3704	20:00-	3698	21:00-	3693	22:00-	3704	23:00-	3710	24:00-	3721

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	35	6095	853	12	155	29	9	25	3	0	0	0	0	7216
Percentage	0.5%	84.5%	11.8%	0.2%	2.1%	0.4%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

Axle Classification/Volume Report

Generated by MSC3000 Version 2.01 Copyright 1990-1992 Mitron Systems Corporation

Location ..... Macarthur Blvd, N of Loughboro Rd, SB4
Location Code 13
County ..... Washington, D.C.
Recorder Set 06/15/04 15:50
Recording Start ... 06/16/ 4 00:00
Recording End 06/18/ 4 00:00
Sample Time ..... 60 Minutes
Operator Number ... 24
Machine Number 37
Channel 1

Wednesday 06/16/ 4 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
02:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	1	10	1	0	2	0	0	0	0	0	0	0	0	14
06:00	1	24	2	0	0	0	0	0	0	0	0	0	0	27
07:00	1	103	22	3	6	1	2	1	0	0	0	0	0	139
08:00	1	412	29	3	9	1	0	4	0	0	0	0	0	459
09:00	4	477	38	4	9	2	2	7	0	0	1	0	0	544
10:00	0	256	26	0	8	1	2	2	0	0	0	0	0	295
11:00	0	134	23	2	7	0	1	0	0	0	0	0	0	167
12:00	2	134	16	0	8	0	0	0	0	0	0	0	0	160
13:00	2	124	16	2	5	1	0	2	1	0	0	0	0	153
14:00	4	124	19	0	5	1	0	0	0	0	0	0	0	153
15:00	4	183	28	1	3	1	1	0	0	0	1	0	0	222
16:00	1	311	53	0	7	0	0	3	0	0	0	0	0	375
17:00	1	290	28	0	4	1	0	1	0	1	0	0	0	326
18:00	2	312	31	0	3	0	0	2	0	0	0	0	0	350
19:00	1	280	19	0	3	0	0	2	0	0	0	0	0	305
20:00	2	111	9	0	1	0	0	0	0	0	0	0	0	123
21:00	2	71	5	0	1	0	0	0	0	0	0	0	0	79
22:00	0	61	3	0	0	0	0	0	0	0	0	0	0	64
23:00	0	35	1	0	0	0	0	0	0	0	0	0	0	36
00:00	1	22	3	0	1	0	0	0	0	0	0	0	0	27
Daily Totals	30	3498	374	15	83	9	8	24	1	1	2	0	0	4045
Percentage	0.7%	86.5%	9.2%	0.4%	2.1%	0.2%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (544 vehicles)
PM Peak Hour ..... 15:00 to 16:00 (375 vehicles)

Thursday 06/17/04 Channel: 1 Direction: S Scheme: +F

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
02:00	1	6	0	0	1	0	0	0	0	0	0	0	0	8
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	3	1	0	2	0	0	0	0	0	0	0	0	6
05:00	1	8	1	0	0	1	0	0	0	0	0	0	0	11
06:00	1	18	4	0	1	1	0	0	0	0	0	0	0	25
07:00	1	101	13	0	6	3	3	0	1	0	0	0	0	128
08:00	9	358	31	4	10	0	0	1	0	0	0	0	0	413
09:00	4	456	33	4	8	4	3	3	0	0	0	0	0	515
10:00	1	244	25	0	10	1	4	3	0	0	0	0	0	288
11:00	1	168	13	0	6	2	0	1	1	0	0	0	0	192
12:00	2	125	18	2	8	0	2	2	0	0	0	0	0	159
13:00	1	122	9	1	6	1	0	0	0	0	0	0	0	140
14:00	4	115	25	0	7	4	1	0	0	0	0	0	0	156
15:00	4	198	29	0	8	1	0	0	0	1	0	0	0	241
16:00	2	293	31	0	8	2	1	0	0	0	0	0	0	337
17:00	3	306	29	0	4	1	0	1	0	0	0	0	0	344
18:00	0	300	21	0	5	0	0	3	0	0	0	0	0	329
19:00	1	346	35	0	0	0	0	0	0	0	0	0	0	382
20:00	0	183	23	1	1	0	0	1	0	0	0	0	0	209
21:00	3	77	3	0	2	0	0	0	0	0	0	0	0	85
22:00	1	84	3	0	0	0	0	0	0	0	0	0	0	88
23:00	0	54	4	0	0	0	0	0	0	0	0	0	0	58
00:00	0	39	2	0	0	2	0	0	0	0	0	0	0	43
Daily Totals	40	3622	354	12	93	23	14	15	2	1	0	0	0	4176
Percentage	1.0%	86.7%	8.5%	0.3%	2.2%	0.6%	0.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

AM Peak Hour ..... 08:00 to 09:00 (515 vehicles)
PM Peak Hour ..... 18:00 to 19:00 (382 vehicles)

24-Hour Moving Total

01:00-	4045	02:00-	4044	03:00-	4047	04:00-	4051	05:00-	4048	06:00-	4046	07:00-	4035	08:00-	3989
09:00-	3960	10:00-	3953	11:00-	3978	12:00-	3977	13:00-	3964	14:00-	3967	15:00-	3986	16:00-	3948
17:00-	3966	18:00-	3945	19:00-	4022	20:00-	4108	21:00-	4114	22:00-	4138	23:00-	4160	24:00-	4176

	+F1	+F2	+F3	+F4	+F5	+F6	+F7	+F8	+F9	+F10	+F11	+F12	+F13	Totals
Grand Totals	70	7120	728	27	176	32	22	39	3	2	2	0	0	8221
Percentage	0.9%	86.6%	8.9%	0.3%	2.1%	0.4%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

HIGHWAY CAPACITY MANUAL ANALYSIS WORKSHEETS –

EXISTING TRAFFIC SITUATION IN VICINITY OF PROJECT SITE

O.R. George & Associates, Inc.

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*ORGA-RD*	Intersection	*LOUGHBORO/DALECARLIA*
Agency/Co.	*ORGA*	Jurisdiction	
Date Performed	*7/13/04*	Analysis Year	*2004*
Analysis Time Period	*AM - EXISTING*		

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *DALECARLIA PARKWAY*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*442*	*149*	*0*	*0*	*125*	*126*
Peak-hour factor, PHF	*0.91*	*0.91*	*1.00*	*1.00*	*0.87*	*0.87*
Hourly Flow Rate (veh/h)	*485*	*163*	*0*	*0*	*143*	*144*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*1*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*144*	*0*	*344*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.93*	*1.00*	*0.93*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*154*	*0*	*369*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*485*					*154*		*369*
Capacity, c_m (vph)	*1257*					*102*		*822*
v/c ratio	*0.39*					*1.51*		*0.45*
Queue length (95%)	*1.88*					*33.00*		*2.42*
Control Delay (s/veh)	*9.7*					*1053*		*12.9*

LOS	A				F		B
Approach delay (s/veh)	--	--			319.1		
Approach LOS	--	--			F		

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LOUGHBORO / DALE CARLIA (AM)
(EXISTING)

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*ORGA-RD*	Intersection	*LOUGHBORO/DALECARLIA*
Agency/Co.	*ORGA*	Jurisdiction	
Date Performed	*7/13/04*	Analysis Year	*2004*
Analysis Time Period	*PM - EXISTING*		

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *DALECARLIA PARKWAY*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*258*	*83*	*0*	*0*	*147*	*175*
Peak-hour factor, PHF	*0.91*	*0.91*	*1.00*	*1.00*	*0.94*	*0.94*
Hourly Flow Rate (veh/h)	*283*	*91*	*0*	*0*	*156*	*186*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*112*	*0*	*530*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*124*	*0*	*588*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*283*					*124*		*588*
Capacity, c_m (vph)	*1200*					*234*		*787*
v/c ratio	*0.24*					*0.53*		*0.75*
Queue length (95%)	*0.92*					*3.20*		*8.19*
Control Delay (s/veh)	*8.9*					*37.4*		*22.7*

LOS	A					E		C	
Approach delay (s/veh)	--	--				25.3			
Approach LOS	--	--				D			

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LOUGHBORO/DALECARLIA (PM)
(EXISTING)

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	LOUGHBORO-SIBLEY HOSPITAL
Agency or Co.		Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	AM - EXISTING	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	0	0	0	0	0
Lane group		LT			TR						LR	
Volume (vph)	27	527			431	61				57		27
% Heavy veh	0	3			3	0				0		0
PHF	0.85	0.85			0.92	0.92				0.84		0.84
Actuated (P/A)	P	P			P	P				P		P
Startup lost time		2.0			2.0						2.0	
Ext. eff. green		2.0			2.0						2.0	
Arrival type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume				10	0	0	0			17	0	0
Lane Width		12.0			12.0						12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0						0	
Unit Extension		3.0			3.0						3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 52.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 1.00						Cycle Length C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		652			534						100	
Lane group cap.		1152			2246						349	
v/c ratio		0.57			0.24						0.29	
Green ratio		0.65			0.65						0.20	
Unif. delay d1		7.8			5.8						27.2	
Delay factor k		0.50			0.50						0.50	
Increm. delay d2		2.0			0.2						2.1	
PF factor		1.000			1.000						1.000	
Control delay		9.8			6.0						29.2	
Lane group LOS		A			A						C	
Apprch. delay	9.8			6.0						29.2		
Approach LOS	A			A						C		
Intersec. delay	9.7			Intersection LOS						A		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	LOUGHBORO-SIBLEY HOSPITAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	PM	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	0	0	0	0	0
Lane group		LT			TR						LR	
Volume (vph)	21	309			617	53				51		24
% Heavy veh	0	3			3	0				0		0
PHF	0.84	0.84			0.93	0.93				0.85		0.85
Actuated (P/A)	P	P			P	P				P		P
Startup lost time		2.0			2.0						2.0	
Ext. eff. green		2.0			2.0						2.0	
Arrival type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume				7	0	0	0			10	0	0
Lane Width		12.0			12.0						12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0						0	
Unit Extension		3.0			3.0						3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 52.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		393			720						88	
Lane group cap.		1128			2260						350	
v/c ratio		0.35			0.32						0.25	
Green ratio		0.65			0.65						0.20	
Unif. delay d1		6.3			6.2						27.0	
Delay factor k		0.50			0.50						0.50	
Increm. delay d2		0.9			0.4						1.7	
PF factor		1.000			1.000						1.000	
Control delay		7.2			6.6						28.7	
Lane group LOS		A			A						C	
Apprch. delay	7.2			6.6						28.7		
Approach LOS	A			A						C		
Intersec. delay	8.4			Intersection LOS						A		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*ORGA-RD*
Agency/Co.	*ORGA*
Date Performed	*7/13/04*
Analysis Time Period	*AM - EXISTING*

Site Information

Intersection	*LOUGHBORO/SIBLEY HOSPITAL*
Jurisdiction	
Analysis Year	*2004*

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *SIBLEY HOSPITAL ENTRANCE*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*3*	*551*	*0*	*0*	*467*	*8*
Peak-hour factor, PHF	*0.97*	*0.97*	*1.00*	*1.00*	*0.83*	*0.83*
Hourly Flow Rate (veh/h)	*3*	*568*	*0*	*0*	*562*	*9*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*2*	*0*
Configuration	*LT*				*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*3*	*0*	*2*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.62*	*1.00*	*0.62*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*4*	*0*	*3*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*3*					*4*		*3*
Capacity, c_m (vph)	*1006*					*194*		*710*
v/c ratio	*0.00*					*0.02*		*0.00*
Queue length (95%)	*0.01*					*0.06*		*0.01*

Control Delay (s/veh)	8.6					23.9		10.1
LOS	A					C		B
Approach delay (s/veh)	--	--				18.0		
Approach LOS	--	--				C		

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LOUGHBORO/SIBLEY (AM)

UNSIGNALIZED ENTRANCE-
EXISTING AM

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*ORGA-RD*
Agency/Co.	*ORGA*
Date Performed	*7/13/04*
Analysis Time Period	*PM - EXISTING*

Site Information

Intersection	*LOUGHBORO/SIBLEY HOSPITAL*
Jurisdiction	
Analysis Year	*2004*

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* North/South Street: *SIBLEY HOSPITAL ENTRANCE*

Intersection Orientation: *East-West* Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*5*	*359*	*0*	*0*	*611*	*5*
Peak-hour factor, PHF	*0.75*	*0.75*	*1.00*	*1.00*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*6*	*478*	*0*	*0*	*678*	*5*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*2*	*0*
Configuration	*LT*				*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*2*	*0*	*7*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.75*	*1.00*	*0.75*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*2*	*0*	*9*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*6*					*2*		*9*
Capacity, c_m (vph)	*915*					*184*		*653*
v/c ratio	*0.01*					*0.01*		*0.01*
Queue length (95%)	*0.02*					*0.03*		*0.04*

Control Delay (s/veh)	9.0					24.8		10.6
LOS	A					C		B
Approach delay (s/veh)	--	--				13.2		
Approach LOS	--	--				B		

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LOUGHBORO/SIBLEY (PM)

UNSIGNALIZED ENT.
EXISTING AM

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	AM - EXISTING	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	2	0	0	2	0
Lane group		LTR		DefL	TR			LTR			LTR	
Volume (vph)	17	26	5	270	10	128	3	459	367	164	664	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.61	0.61	0.61	0.93	0.93	0.93	0.80	0.80	0.80	0.86	0.86	0.86
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	1		0	4		0	1		0	4		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 24.0	G =	G =	G =	G = 44.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		79		290	149			1037			966	
Lane group cap.		491		391	478			1726			1099	
v/c ratio		0.16		0.74	0.31			0.60			0.88	
Green ratio		0.30		0.30	0.30			0.55			0.55	
Unif. delay d1		20.6		25.2	21.6			12.1			15.7	
Delay factor k		0.50		0.50	0.50			0.50			0.50	
Increm. delay d2		0.7		12.9	1.7			1.6			11.3	
PF factor		1.000		1.000	1.000			1.000			1.000	
Control delay		21.3		38.1	23.3			13.7			27.0	
Lane group LOS		C		D	C			B			C	
Apprch. delay	21.3			33.1			13.7			27.0		
Approach LOS	C			C			B			C		
Intersec. delay	22.4			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	PM - EXISTING	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	2	0	0	2	0
Lane group		LTR		DefL	TR			LTR			LTR	
Volume (vph)	13	8	1	491	23	132	2	379	201	97	555	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.61	0.61	0.61	0.93	0.93	0.93	0.80	0.80	0.80	0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	1		0	4		0	1		0	4		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 36.0	G =	G =	G =	G = 32.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	36	528 167	727	752
Lane group cap.	718	609 727	1278	926
v/c ratio	0.05	0.87 0.23	0.57	0.81
Green ratio	0.45	0.45 0.45	0.40	0.40
Unif. delay d1	12.4	19.8 13.5	18.6	21.3
Delay factor k	0.50	0.50 0.50	0.50	0.50
Increm. delay d2	0.1	17.9 0.7	1.9	8.2
PF factor	1.000	1.000 1.000	1.000	1.000
Control delay	12.5	37.8 14.2	20.5	29.5
Lane group LOS	B	D B	C	C
Apprch. delay	12.5	32.1	20.5	29.5
Approach LOS	B	C	C	C
Intersec. delay	27.1	Intersection LOS		C

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*ORGA-RD*	Intersection	*MACARTHUR/LITTLE FALLS*
Agency/Co.	*ORGA*	Jurisdiction	
Date Performed	*7/12/04*	Analysis Year	*2004*
Analysis Time Period	*AM - EXISTING*		

Project Description	*WASHINGTON AQUEDUCT*
East/West Street: *LITTLE FALLS ROAD*	North/South Street: *MACARTHUR BOULEVARD*
Intersection Orientation: *North-South*	Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*524*	*18*	*19*	*909*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.87*	*0.87*	*0.88*	*0.88*	*1.00*
Hourly Flow Rate, HFR	*0*	*602*	*20*	*21*	*1032*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*	*TR*	*LT*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*1*	*0*	*12*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.54*	*1.00*	*0.54*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*1*	*0*	*22*	*0*	*0*	*0*
Percent Heavy Vehicles	*5*	*0*	*4*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*21*		*23*				
C (m) (vph)		*967*		*602*				
v/c		*0.02*		*0.04*				
95% queue length		*0.07*		*0.12*				
Control Delay		*8.8*		*11.2*				
LOS		*A*		*B*				
Approach Delay	--	--	*11.2*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*ORGA-RD*	Intersection	*MACARTHUR/LITTLE FALLS*
Agency/Co.	*ORGA*	Jurisdiction	
Date Performed	*7/12/04*	Analysis Year	*2004*
Analysis Time Period	*PM - EXISTING*		

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LITTLE FALLS ROAD* | North/South Street: *MACARTHUR BOULEVARD*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*494*	*2*	*5*	*601*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.85*	*0.85*	*0.84*	*0.84*	*1.00*
Hourly Flow Rate, HFR	*0*	*581*	*2*	*5*	*715*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*	*TR*	*LT*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*26*	*0*	*38*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.80*	*1.00*	*0.80*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*32*	*0*	*47*	*0*	*0*	*0*
Percent Heavy Vehicles	*5*	*0*	*4*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*5*		*79*				
C (m) (vph)		*1000*		*405*				
v/c		*0.00*		*0.20*				
95% queue length		*0.02*		*0.72*				
Control Delay		*8.6*		*16.0*				
LOS		*A*		*C*				
Approach Delay	--	--	*16.0*					
Approach LOS	--	--	*C*					

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/CATHEDRAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/13/04	Jurisdiction	
Time Period	AM - EXISTING	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume (vph)	21	6	5	21	1	8	7	806	17	4	959	1
% Heavy veh	2	0	0	1	0	0	2	1	4	0	1	0
PHF	0.53	0.53	0.53	0.58	0.58	0.58	0.89	0.89	0.89	0.88	0.88	0.88
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	8		0	14		0	6		0	11		0
Lane Width		12.0			12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0			0			0	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 18.0	G =	G =	G =	G = 50.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 1.00						Cycle Length C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	60	52	933	1096
Lane group cap.	328	323	2107	2129
v/c ratio	0.18	0.16	0.44	0.51
Green ratio	0.22	0.22	0.63	0.63
Unif. delay d1	25.1	24.9	7.8	8.3
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	1.2	1.1	0.7	0.9
PF factor	1.000	1.000	1.000	1.000
Control delay	26.3	26.0	8.5	9.2
Lane group LOS	C	C	A	A
Apprch. delay	26.3	26.0	8.5	9.2
Approach LOS	C	C	A	A
Intersec. delay	9.8	Intersection LOS		A

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/CATHEDRAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/13/04	Jurisdiction	
Time Period	PM - EXISTING	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume (vph)	30	6	5	13	2	14	12	548	16	14	1123	5
% Heavy veh	2	0	0	1	0	0	2	1	4	0	1	0
PHF	0.73	0.73	0.73	0.73	0.73	0.73	0.90	0.90	0.90	0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	8		0	14		0	6		0	11		0
Lane Width		12.0			12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0			0			0	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 18.0	G =	G =	G =	G = 50.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 1.00						Cycle Length C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	56	40	640	1313
Lane group cap.	325	349	2046	2113
v/c ratio	0.17	0.11	0.31	0.62
Green ratio	0.22	0.22	0.63	0.63
Unif. delay d1	25.0	24.7	7.0	9.2
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	1.2	0.7	0.4	1.4
PF factor	1.000	1.000	1.000	1.000
Control delay	26.1	25.3	7.4	10.6
Lane group LOS	C	C	A	B
Apprch. delay	26.1	25.3	7.4	10.6
Approach LOS	C	C	A	B
Intersec. delay	10.3	Intersection LOS		B

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HIGHWAY CAPACITY MANUAL ANALYSIS WORKSHEETS –

FUTURE/TOTAL TRAFFIC SITUATION IN VICINITY OF PROJECT SITE

O.R. George & Associates, Inc.

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-RD
Agency/Co.	ORGA
Date Performed	7/13/04
Analysis Time Period	AM - TOTAL

Site Information

Intersection	LOUGHBORO/DALECARLIA
Jurisdiction	
Analysis Year	2004

Project Description: WASHINGTON AQUEDUCT

East/West Street: LOUGHBORO ROAD | North/South Street: DALECARLIA PARKWAY

Intersection Orientation: East-West | Study Period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	475	149	0	0	125	126
Peak-hour factor, PHF	0.91	0.91	1.00	1.00	0.87	0.87
Hourly Flow Rate (veh/h)	521	163	0	0	143	144
Proportion of heavy vehicles, P_{HV}	4	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	144	0	377
Peak-hour factor, PHF	1.00	1.00	1.00	0.93	1.00	0.93
Hourly Flow Rate (veh/h)	0	0	0	154	0	405
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	1
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT					L		R
Volume, v (vph)	521					154		405
Capacity, c_m (vph)	1257					88		822
v/c ratio	0.41					1.75		0.49
Queue length (95%)	2.11					38.93		2.87
Control Delay (s/veh)	9.9					1485		13.6

LOS	A					F		B
Approach delay (s/veh)	--	--				419.1		
Approach LOS	--	--				F		

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LOUGHBORO/DALECARLIA
AM - TOTAL/FUTURE

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*ORGA-RD*
Agency/Co.	*ORGA*
Date Performed	*7/13/04*
Analysis Time Period	*PM - TOTAL*

Site Information

Intersection	*LOUGHBORO/DALECARLIA*
Jurisdiction	
Analysis Year	*2004*

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *DALECARLIA PARKWAY*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*291*	*83*	*0*	*0*	*147*	*175*
Peak-hour factor, PHF	*0.91*	*0.91*	*1.00*	*1.00*	*0.94*	*0.94*
Hourly Flow Rate (veh/h)	*319*	*91*	*0*	*0*	*156*	*186*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*112*	*0*	*563*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.90*	*1.00*	*0.90*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*124*	*0*	*625*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*319*					*124*		*625*
Capacity, c_m (vph)	*1200*					*204*		*787*
v/c ratio	*0.27*					*0.61*		*0.79*
Queue length (95%)	*1.08*					*4.21*		*10.27*
Control Delay (s/veh)	*9.1*					*49.0*		*26.5*

LOS	A					E		D
Approach delay (s/veh)	--	--				30.2		
Approach LOS	--	--				D		

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LOUGHBORO/DALECARLIA
PM - TOTAL/FUTURE

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	LOUGHBORO-SIBLEY HOSPITAL
Agency or Co.		Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	AM - TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	0	0	0	0	0
Lane group		LT			TR						LR	
Volume (vph)	27	560			464	61				57		27
% Heavy veh	0	3			3	0				0		0
PHF	0.85	0.85			0.92	0.92				0.84		0.84
Actuated (P/A)	P	P			P	P				P		P
Startup lost time		2.0			2.0						2.0	
Ext. eff. green		2.0			2.0						2.0	
Arrival type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume				10	0	0	0			17	0	0
Lane Width		12.0			12.0						12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0						0	
Unit Extension		3.0			3.0						3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 52.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	691	570		100
Lane group cap.	1152	2249		349
v/c ratio	0.60	0.25		0.29
Green ratio	0.65	0.65		0.20
Unif. delay d1	8.0	5.9		27.2
Delay factor k	0.50	0.50		0.50
Increm. delay d2	2.3	0.3		2.1
PF factor	1.000	1.000		1.000
Control delay	10.4	6.1		29.2
Lane group LOS	B	A		C
Apprch. delay	10.4	6.1		29.2
Approach LOS	B	A		C
Intersec. delay	10.0	Intersection LOS		A

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	LOUGHBORO-SIBLEY HOSPITAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	PM – TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	0	0	0	0	0
Lane group		LT			TR						LR	
Volume (vph)	21	342			650	53				51		24
% Heavy veh	0	3			3	0				0		0
PHF	0.84	0.84			0.93	0.93				0.85		0.85
Actuated (P/A)	P	P			P	P				P		P
Startup lost time		2.0			2.0						2.0	
Ext. eff. green		2.0			2.0						2.0	
Arrival type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume				7	0	0	0			10	0	0
Lane Width		12.0			12.0						12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0						0	
Unit Extension		3.0			3.0						3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 52.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	432	756		88
Lane group cap.	1130	2261		350
v/c ratio	0.38	0.33		0.25
Green ratio	0.65	0.65		0.20
Unif. delay d1	6.5	6.3		27.0
Delay factor k	0.50	0.50		0.50
Increm. delay d2	1.0	0.4		1.7
PF factor	1.000	1.000		1.000
Control delay	7.5	6.7		28.7
Lane group LOS	A	A		C
Apprch. delay	7.5	6.7		28.7
Approach LOS	A	A		C
Intersec. delay	8.5	Intersection LOS		A

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*ORGA-RD*
Agency/Co.	*ORGA*
Date Performed	*7/13/04*
Analysis Time Period	*AM - TOTAL*

Site Information

Intersection	*LOUGHBORO/SIBLEY HOSPITAL*
Jurisdiction	
Analysis Year	*2004*

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *SIBLEY HOSPITAL ENTRANCE*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*3*	*584*	*0*	*0*	*500*	*8*
Peak-hour factor, PHF	*0.97*	*0.97*	*1.00*	*1.00*	*0.83*	*0.83*
Hourly Flow Rate (veh/h)	*3*	*602*	*0*	*0*	*602*	*9*
Proportion of heavy vehicles, P_{HV}	*0*	--	--	*0*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*2*	*0*
Configuration	*LT*				*T*	*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*0*	*0*	*0*	*3*	*0*	*2*
Peak-hour factor, PHF	*1.00*	*1.00*	*1.00*	*0.62*	*1.00*	*0.62*
Hourly Flow Rate (veh/h)	*0*	*0*	*0*	*4*	*0*	*3*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*0*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*1*
Lanes	*0*	*0*	*0*	*1*	*0*	*1*
Configuration				*L*		*R*

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*					*L*		*R*
Volume, v (vph)	*3*					*4*		*3*
Capacity, c_m (vph)	*973*					*173*		*689*
v/c ratio	*0.00*					*0.02*		*0.00*
Queue length (95%)	*0.01*					*0.07*		*0.01*

Control Delay (s/veh)	8.7					26.3		10.2
LOS	A					D		B
Approach delay (s/veh)	--	--				19.4		
Approach LOS	--	--				C		

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LOUGHBORO/SIBLEY

UNSIGNALIZED INT. - AM TOTAL/FUTURE

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-RD
Agency/Co.	ORGA
Date Performed	7/13/04
Analysis Time Period	PM- TOTAL

Site Information

Intersection	LOUGHBORO/SIBLEY HOSPITAL
Jurisdiction	
Analysis Year	2004

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LOUGHBORO ROAD* | North/South Street: *SIBLEY HOSPITAL ENTRANCE*

Intersection Orientation: *East-West* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	5	392	0	0	644	5
Peak-hour factor, PHF	0.75	0.75	1.00	1.00	0.90	0.90
Hourly Flow Rate (veh/h)	6	522	0	0	715	5
Proportion of heavy vehicles, P_{HV}	0	--	--	0	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	2	0
Configuration	LT				T	TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	2	0	7
Peak-hour factor, PHF	1.00	1.00	1.00	0.75	1.00	0.75
Hourly Flow Rate (veh/h)	0	0	0	2	0	9
Proportion of heavy vehicles, P_{HV}	0	0	0	1	0	1
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			1
Lanes	0	0	0	1	0	1
Configuration				L		R

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT					L		R
Volume, v (vph)	6					2		9
Capacity, c_m (vph)	887					163		635
v/c ratio	0.01					0.01		0.01
Queue length (95%)	0.02					0.04		0.04

Control Delay (s/veh)	9.1					27.4		10.8
LOS	A					D		B
Approach delay (s/veh)	--	--				13.8		
Approach LOS	--	--				B		

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LOUGHBORO/SIBLEY

UNSIGNALIZED ENTRANCE
PM TOTAL/FUTURE

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.		Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	ROUTES TO MARYLAND
Time Period	AM - TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Lane group		LTR			LT	R		LTR			LTR	
Volume (vph)	17	26	5	270	10	161	3	459	367	197	664	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.80	0.80	0.80	0.89	0.89	0.89	0.94	0.94	0.94	0.89	0.89	0.89
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0	2.0		2.0			2.0	
Ext. eff. green		2.0			2.0	2.0		2.0			2.0	
Arrival type		3			3	3		3			3	
Unit Extension		3.0			3.0	3.0		3.0			3.0	
Ped/Bike/RTOR Volume	0		0	4		0	3		0	2		0
Lane Width		12.0			12.0	12.0		12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0	0		0			0	
Unit Extension		3.0			3.0	3.0		3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 24.0	G =	G =	G =	G = 44.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		59			314	181		881			970	
Lane group cap.		464			383	470		1727			1152	
v/c ratio		0.13			0.82	0.39		0.51			0.84	
Green ratio		0.30			0.30	0.30		0.55			0.55	
Unif. delay d1		20.4			26.0	22.2		11.3			15.1	
Delay factor k		0.50			0.50	0.50		0.50			0.50	
Increm. delay d2		0.6			20.1	2.4		1.1			8.1	
PF factor		1.000			1.000	1.000		1.000			1.000	
Control delay		20.9			46.1	24.6		12.3			23.2	
Lane group LOS		C			D	C		B			C	
Apprch. delay	20.9			38.2			12.3			23.2		
Approach LOS	C			D			B			C		
Intersec. delay	22.3			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	PM - TOTAL 1	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	2	0	0	2	0
Lane group		LTR		DefL	TR			LTR			LTR	
Volume (vph)	13	8	1	491	23	165	2	379	201	130	555	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.61	0.61	0.61	0.93	0.93	0.93	0.80	0.80	0.80	0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	1		0	4		0	1		0	4		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 36.0	G =	G =	G =	G = 32.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		36		528	202			727			790	
Lane group cap.		709		609	724			1278			891	
v/c ratio		0.05		0.87	0.28			0.57			0.89	
Green ratio		0.45		0.45	0.45			0.40			0.40	
Unif. delay d1		12.4		19.8	13.8			18.6			22.3	
Delay factor k		0.50		0.50	0.50			0.50			0.50	
Increm. delay d2		0.1		17.9	1.0			1.9			14.7	
PF factor		1.000		1.000	1.000			1.000			1.000	
Control delay		12.5		37.8	14.8			20.5			37.1	
Lane group LOS		B		D	B			C			D	
Apprch. delay	12.5			31.4			20.5			37.1		
Approach LOS	B			C			C			D		
Intersec. delay	29.6			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.		Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	ROUTES SOUTH ALONG MACARTHUR
Time Period	AM - TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Lane group		LTR			LT	R		LTR			LTR	
Volume (vph)	17	26	5	270	10	128	3	492	367	164	697	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.80	0.80	0.80	0.89	0.89	0.89	0.94	0.94	0.94	0.89	0.89	0.89
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0	2.0		2.0			2.0	
Ext. eff. green		2.0			2.0	2.0		2.0			2.0	
Arrival type		3			3	3		3			3	
Unit Extension		3.0			3.0	3.0		3.0			3.0	
Ped/Bike/RTOR Volume	0		0	4		0	3		0	2		0
Lane Width		12.0			12.0	12.0		12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0	0		0			0	
Unit Extension		3.0			3.0	3.0		3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 24.0	G =	G =	G =	G = 44.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		59			314	144		916			970	
Lane group cap.		464			383	470		1733			1168	
v/c ratio		0.13			0.82	0.31		0.53			0.83	
Green ratio		0.30			0.30	0.30		0.55			0.55	
Unif. delay d1		20.4			26.0	21.6		11.4			14.9	
Delay factor k		0.50			0.50	0.50		0.50			0.50	
Increm. delay d2		0.6			20.1	1.7		1.2			7.4	
PF factor		1.000			1.000	1.000		1.000			1.000	
Control delay		20.9			46.1	23.3		12.6			22.3	
Lane group LOS		C			D	C		B			C	
Apprch. delay	20.9			38.9			12.6			22.3		
Approach LOS	C			D			B			C		
Intersec. delay	21.7			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/LOUGHBORO
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/12/04	Jurisdiction	
Time Period	PM - TOTAL 2	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	2	0	0	2	0	0	2	0
Lane group		LTR		DefL	TR			LTR			LTR	
Volume (vph)	13	8	1	491	23	135	2	412	201	97	588	3
% Heavy veh	0	0	0	3	0	3	0	2	3	3	1	0
PHF	0.61	0.61	0.61	0.93	0.93	0.93	0.80	0.80	0.80	0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	1		0	4		0	1		0	4		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 36.0	G =	G =	G =	G = 32.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 1.00						Cycle Length C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		36		528	170			768			790	
Lane group cap.		717		609	727			1282			908	
v/c ratio		0.05		0.87	0.23			0.60			0.87	
Green ratio		0.45		0.45	0.45			0.40			0.40	
Unif. delay d1		12.4		19.8	13.5			18.9			22.1	
Delay factor k		0.50		0.50	0.50			0.50			0.50	
Increm. delay d2		0.1		17.9	0.8			2.1			12.6	
PF factor		1.000		1.000	1.000			1.000			1.000	
Control delay		12.5		37.8	14.3			21.0			34.7	
Lane group LOS		B		D	B			C			C	
Apprch. delay	12.5			32.0			21.0			34.7		
Approach LOS	B			C			C			C		
Intersec. delay	29.0			Intersection LOS						C		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*ORGA-RD*
Agency/Co.	*ORGA*
Date Performed	*7/12/04*
Analysis Time Period	*AM - TOTAL*

Site Information

Intersection	*MACARTHUR/LITTLE FALLS*
Jurisdiction	
Analysis Year	*2004*

Project Description *WASHINGTON AQUEDUCT*

East/West Street: *LITTLE FALLS ROAD* | North/South Street: *MACARTHUR BOULEVARD*

Intersection Orientation: *North-South* | Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*557*	*18*	*19*	*942*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.87*	*0.87*	*0.88*	*0.88*	*1.00*
Hourly Flow Rate, HFR	*0*	*640*	*20*	*21*	*1070*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*	*TR*	*LT*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*1*	*0*	*12*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.54*	*1.00*	*0.54*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*1*	*0*	*22*	*0*	*0*	*0*
Percent Heavy Vehicles	*5*	*0*	*4*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*21*		*23*				
C (m) (vph)		*936*		*580*				
v/c		*0.02*		*0.04*				
95% queue length		*0.07*		*0.12*				
Control Delay		*8.9*		*11.5*				
LOS		*A*		*B*				
Approach Delay	--	--	*11.5*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*ORGA-RD*	Intersection	*MACARTHUR/LITTLE FALLS*
Agency/Co.	*ORGA*	Jurisdiction	
Date Performed	*7/12/04*	Analysis Year	*2004*
Analysis Time Period	*PM - TOTAL*		

Project Description	*WASHINGTON AQUEDUCT*
East/West Street: *LITTLE FALLS ROAD*	North/South Street: *MACARTHUR BOULEVARD*
Intersection Orientation: *North-South*	Study Period (hrs): *1.00*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*527*	*2*	*5*	*634*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.85*	*0.85*	*0.84*	*0.84*	*1.00*
Hourly Flow Rate, HFR	*0*	*619*	*2*	*5*	*754*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*	*TR*	*LT*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*26*	*0*	*38*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.80*	*1.00*	*0.80*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*32*	*0*	*47*	*0*	*0*	*0*
Percent Heavy Vehicles	*5*	*0*	*4*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*5*		*79*				
C (m) (vph)		*968*		*378*				
v/c		*0.01*		*0.21*				
95% queue length		*0.02*		*0.79*				
Control Delay		*8.7*		*17.0*				
LOS		*A*		*C*				
Approach Delay	--	--	*17.0*					
Approach LOS	--	--	*C*					

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/CATHEDRAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/13/04	Jurisdiction	
Time Period	AM - TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume (vph)	21	6	5	21	1	8	7	839	17	4	992	1
% Heavy veh	2	0	0	1	0	0	2	1	4	0	1	0
PHF	0.53	0.53	0.53	0.58	0.58	0.58	0.89	0.89	0.89	0.88	0.88	0.88
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	8		0	14		0	6		0	11		0
Lane Width		12.0			12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0			0			0	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 18.0	G =	G =	G =	G = 50.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis (hrs) = 1.00 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		60			52			970			1133	
Lane group cap.		328			323			2107			2129	
v/c ratio		0.18			0.16			0.46			0.53	
Green ratio		0.22			0.22			0.63			0.63	
Unif. delay d1		25.1			24.9			7.9			8.4	
Delay factor k		0.50			0.50			0.50			0.50	
Increm. delay d2		1.2			1.1			0.7			1.0	
PF factor		1.000			1.000			1.000			1.000	
Control delay		26.3			26.0			8.6			9.4	
Lane group LOS		C			C			A			A	
Apprch. delay	26.3			26.0			8.6			9.4		
Approach LOS	C			C			A			A		
Intersec. delay	9.9			Intersection LOS						A		

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SHORT REPORT

General Information		Site Information	
Analyst	ORGA-RD	Intersection	MACARTHUR/CATHEDRAL
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	7/13/04	Jurisdiction	
Time Period	PM- TOTAL	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume (vph)	30	6	5	13	2	14	12	581	16	14	1156	5
% Heavy veh	2	0	0	1	0	0	2	1	4	0	1	0
PHF	0.73	0.73	0.73	0.73	0.73	0.73	0.90	0.90	0.90	0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	8		0	14		0	6		0	11		0
Lane Width		12.0			12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0			0			0			0	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 18.0	G =	G =	G =	G = 50.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis (hrs) = 1.00					Cycle Length C = 80.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	56	40	677	1351
Lane group cap.	325	349	2047	2113
v/c ratio	0.17	0.11	0.33	0.64
Green ratio	0.22	0.22	0.63	0.63
Unif. delay d1	25.0	24.7	7.1	9.4
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	1.2	0.7	0.4	1.5
PF factor	1.000	1.000	1.000	1.000
Control delay	26.1	25.3	7.5	10.9
Lane group LOS	C	C	A	B
Apprch. delay	26.1	25.3	7.5	10.9
Approach LOS	C	C	A	B
Intersec. delay	10.5	Intersection LOS		B

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O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Lanham, MD 20706-2218
Tel: (301) 794-7700 • Fax: (301) 794-4400
E-mail: orgassoc@aol.com

TECHNICAL MEMORANDUM

DATE: December 14, 2004

TO: Jed Campbell
Jennifer Armstrong

FROM: Cullen E. Elias

RE: Evaluation of Potential Access Points along Dalecarlia Parkway

1.0 INTRODUCTION

Further to our telephone conversation yesterday, we have undertaken an assessment of the two (2) potential access points along Dalecarlia Parkway which are currently under consideration. Specifically, these access points are as follows:

a) The existing Little Falls Road/Dalecarlia Parkway intersection which primarily provides access to the Sibley Memorial Hospital building and parking facilities and;

b) A proposed full-access driveway intersection, to be located approximately 870 feet north of Little Falls Road.

The remainder of this memorandum presents the results of our assessment.

2.0 ACCESS POINTS EVALUATION

The two (2) potential access points along Dalecarlia Parkway are being considered in the context of the alternative access that would be available off MacArthur Boulevard, and the seven (7) haul routes under consideration. Based on factors which would be outlined below, it is assumed that the subject access points would be the terminals of those haul routes which extend through Montgomery County (Maryland) to the Capital Beltway (I-495). To facilitate the decision-making process of the Washington Aqueduct, the advantage and disadvantages of the access points are outlined below:

- **Little Falls Road @ Dalecarlia Parkway**

  Advantages: a) This intersection exists already.

  b) The location provides for full access movements, i.e., right - and left - turns.

  c) The intersection currently operates within the City's acceptable Level-of-Service standards. This operational/capacity situation takes into consideration the existing turning movement volumes and the proximity of the intersection to the Dalecarlia relative to the Dalecarlia Parkway/Loughboro Road intersection ((i.e., 100 feet).

  d) This access situation would circumvent potential adverse traffic and noise impacts on the Sibley Memorial Hospital buildings and residential uses situated along Loughboro Road, as well as the

operational and safety issues related to the steep gradiant along Loughboro Road.

Disadvantages: 1) Vehicular conflicts, involving the residuals-hauling trucks and patrons/employees of the Hospital, would occur at the intersection and along the north-south segment of Little Falls Road.

2) This may present some safety issues, although the truck trips would be few and well distributed.

3) The impacted segment of Little Falls Road may not be constructed to carry heavy truck traffic.

4) Left-turns onto Dalecarlia Parkway by heavy trucks may be difficult and unsafe.

- **Proposed New Driveway Intersection:**

Advantages: a) The intersection would be constructed in accordance with the DDOT design standards regarding driveway width, turning lane width and radii, etc.

b) The intersection would be located approximately 870 feet from the Dalecarlia Parkway/Loughboro Road intersection (to the south) and the Dalecarlia Parkway/Rockwood Parkway intersection (to the north). These distances more than satisfy the City's separation standards for commercial or industrial driveways.

c) The intersection may include a, right-turn deceleration lane for southbound/inbound trips and a left-side acceleration lane for northbound/outbound trips.

d) Considering the above, and the projected truck trip generation and hourly distribution, the proposed intersection would operate quite acceptably, from the perspectives of capacity, operational efficiency and safety.

e) This access would eliminate potential adverse traffic and noise impacts on the Sibley Memorial Hospital complex and the residential uses along Loughboro Road. The operational/safety issues presented by the steep gradient along Loughboro Road would also be circumvented.

Disadvantages: 1) The proposed intersection would require a new curb-cut and median break, along with other geometric and traffic control improvements.

2) The approval and implementation process for the improvements (noted in item 1) could be lengthy and costly.

Based on the above, the new access point along Dalecarlia Parkway would have significantly less adverse traffic and noise impacts, and should receive greater "acceptability" by the DDOT and the adjacent residential communities. This conclusion is relative to the other access points currently under consideration.

We trust that you will find the above useful. Should you have any questions or comments, please let us know. Thank you.

ORG/mvd

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, Maryland 20706
Tel: (301) 794-7700 Fax: (301) 794-4400
orgassoc@aol.com

Passenger Vehicles

Date : 20-Dec-04
Location : Dalecarlia Parkway @ Little Road

City: Washington, D.C.
Weather: Cold/Clear/Dry

End Time	From North - Dalecarlia Parkway				From South - Dalecarlia Parkway				From East				From West - Little Road				Total
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	
7:15	0	67	17	0	12	56	0	0	0	0	0	0	4	0	1	0	157
7:30	0	90	19	0	14	67	0	0	0	0	0	0	3	0	2	0	195
7:45	0	114	18	0	15	79	0	0	0	0	0	0	4	0	1	0	231
8:00	0	116	16	0	8	91	0	0	0	0	0	0	10	0	3	0	244
total	*0*	*387*	*70*	*0*	*49*	*293*	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*7*	*0*	*827*
8:15	0	115	10	0	6	111	0	0	0	0	0	0	6	0	4	0	252
8:30	0	84	14	0	5	115	0	0	0	0	0	0	3	0	3	0	224
8:45	0	111	9	0	7	98	0	0	0	0	0	0	6	0	1	0	232
9:00	0	105	10	0	9	96	0	0	0	0	0	0	4	0	4	0	228
total	*0*	*415*	*43*	*0*	*27*	*420*	*0*	*0*	*0*	*0*	*0*	*0*	*19*	*0*	*12*	*0*	*936*
16:15	0	96	1	0	2	107	0	0	0	0	0	0	22	0	8	0	236
16:30	0	139	3	0	0	97	0	0	0	0	0	0	13	0	5	0	257
16:45	0	134	3	0	3	96	0	0	0	0	0	0	21	0	11	0	268
17:00	0	146	3	0	1	116	0	0	0	0	0	0	18	0	11	0	295
total	*0*	*515*	*10*	*0*	*6*	*416*	*0*	*0*	*0*	*0*	*0*	*0*	*74*	*0*	*35*	*0*	*1056*
17:15	0	135	2	0	4	114	0	0	0	0	0	0	23	0	8	0	286
17:30	0	146	3	0	0	128	0	0	0	0	0	0	14	0	3	0	294
17:45	0	145	6	0	2	85	0	0	0	0	0	0	12	0	2	0	252
18:00	0	131	9	0	4	81	0	0	0	0	0	0	10	0	3	0	238
total	*0*	*557*	*20*	*0*	*10*	*408*	*0*	*0*	*0*	*0*	*0*	*0*	*59*	*0*	*16*	*0*	*1070*

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, Maryland 20706
Tel: (301) 794-7700 Fax: (301) 794-4400
orgassoc@aol.com

Trucks

Date : 20-Dec-04
Location : Dalecarlia Parkway @ Little Road

City: Washington, D.C.
Weather: Cold/Clear/Dry

End Time	From North - Dalecarlia Parkway				From South - Dalecarlia Parkway				From East				From West - Little Road				Total
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	
7:15	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
7:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
total	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*0*	*0*	*4*
8:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
total	*0*	*0*	*0*	*0*	*2*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
17:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
total	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*2*

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, Maryland 20706
Tel: (301) 794-7700 Fax: (301) 794-4400
orgassoc@aol.com

Buses

Date : 20-Dec-04
Location : Dalecarlia Parkway @ Little Road

City: Washington, D.C.
Weather: Cold/Clear/Dry

End Time	From North - Dalecarlia Parkway				From South - Dalecarlia Parkway				From East				From West - Little Road				Total
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	
7:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4
7:45	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
8:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4
total	*0*	*1*	*0*	*0*	*8*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*12*
8:15	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
8:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
8:45	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3
9:00	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4
total	*0*	*2*	*1*	*0*	*7*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*12*
16:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
total	*0*	*1*	*1*	*0*	*4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*
17:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
total	*0*	*0*	*0*	*0*	*4*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*5*

O.R. George & Associates, Inc.
10210 Greenbelt Road, Suite 310
Lanham, Maryland 20706
Tel: (301) 794-7700 Fax: (301) 794-4400
orgassoc@aol.com

Total Traffic

Date : 20-Dec-04
Location : Dalecarlia Parkway @ Little Road

City: Washington, D.C.
Weather: Cold/Clear/Dry

End Time	From North - Dalecarlia Parkway				From South - Dalecarlia Parkway				From East				From West - Little Road				Total
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	
7:15	0	67	18	0	13	56	0	0	0	0	0	0	5	0	1	0	160
7:30	0	91	19	0	17	67	0	0	0	0	0	0	4	0	2	0	200
7:45	0	114	18	0	16	81	0	0	0	0	0	0	4	0	1	0	234
8:00	0	117	16	0	11	92	0	0	0	0	0	0	10	0	3	0	249
total	*0*	*389*	*71*	*0*	*57*	*296*	*0*	*0*	*0*	*0*	*0*	*0*	*23*	*0*	*7*	*0*	*843*
8:15	0	116	10	0	8	112	0	0	0	0	0	0	6	0	4	0	256
8:30	0	84	14	0	8	116	0	0	0	0	0	0	3	0	3	0	228
8:45	0	111	10	0	9	98	0	0	0	0	0	0	6	0	1	0	235
9:00	0	106	10	0	11	97	0	0	0	0	0	0	4	0	4	0	232
total	*0*	*417*	*44*	*0*	*36*	*423*	*0*	*0*	*0*	*0*	*0*	*0*	*19*	*0*	*12*	*0*	*951*
16:15	0	97	2	0	2	107	0	0	0	0	0	0	22	0	8	0	238
16:30	0	139	3	0	1	97	0	0	0	0	0	0	13	0	5	0	258
16:45	0	134	3	0	4	96	0	0	0	0	0	0	21	0	11	0	269
17:00	0	146	3	0	3	116	0	0	0	0	0	0	18	0	11	0	297
total	*0*	*516*	*11*	*0*	*10*	*416*	*0*	*0*	*0*	*0*	*0*	*0*	*74*	*0*	*35*	*0*	*1062*
17:15	0	135	2	0	5	115	0	0	0	0	0	0	23	0	9	0	289
17:30	0	146	3	0	1	128	0	0	0	0	0	0	14	0	3	0	295
17:45	0	145	6	0	3	85	0	0	0	0	0	0	12	0	2	0	253
18:00	0	131	9	0	6	81	0	0	0	0	0	0	10	0	3	0	240
total	*0*	*557*	*20*	*0*	*15*	*409*	*0*	*0*	*0*	*0*	*0*	*0*	*59*	*0*	*17*	*0*	*1077*

Pedestrian and Bike Counts

O.R GEORGE & ASSOCIATES, INC.

Traffic Engineers - Transportation Planners

Location: Washington D.C.
Date: Tuesday, August 17, 2004

City: Washington D.C.
Counted by: ORGA-NL

CAPITOL CRESCENT TRAIL USAGE COUNTS (In vicinity of Dalecarlia Water Treatment Plant)

NORTHBOUND

END TIME	WALKERS/JOGGERS	CYCLISTS
6:15	0	0
6:30	1	2
6:45	2	4
7:00	2	9
TOTAL	5	15
7:15	3	9
7:30	1	13
7:45	0	11
8:00	2	11
TOTAL	6	44
8:15	1	5
8:30	2	7
8:45	1	6
9:00	2	5
TOTAL	6	23
9:15	1	5
9:30	1	1
9:45	2	7
10:00	3	3
TOTAL	7	16
10:15	6	7
10:30	1	3
10:45	3	4
11:00	1	5
TOTAL	11	19
11:15	1	2
11:30	2	4
11:45	2	6
12:00	3	8
TOTAL	8	20
12:15	1	5
12:30	1	10
12:45	0	4
13:00	0	5
TOTAL	2	24

SOUTHBOUND

END TIME	WALKERS/JOGGERS	CYCLISTS
6:15	0	3
6:30	0	9
6:45	2	18
7:00	5	22
TOTAL	7	52
7:15	2	31
7:30	2	37
7:45	3	31
8:00	1	35
TOTAL	8	134
8:15	3	40
8:30	1	37
8:45	0	36
9:00	0	22
TOTAL	4	135
9:15	0	19
9:30	1	4
9:45	2	9
10:00	3	8
TOTAL	6	40
10:15	3	5
10:30	3	10
10:45	4	3
11:00	0	8
TOTAL	10	26
11:15	0	3
11:30	1	4
11:45	0	5
12:00	2	7
TOTAL	3	19
12:15	2	9
12:30	2	11
12:45	0	11
13:00	3	9
TOTAL	7	40

O.R GEORGE & ASSOCIATES, INC.

Traffic Engineers - Transportation Planners

Location: Washington D.C.
Date: Tuesday, August 17, 2004

City: Washington D.C.
Counted by: ORGA-NL

CAPITOL CRESCENT TRAIL USAGE COUNTS (In vicinity of Dalecarlia Water Treatment Plant)

NORTHBOUND

END TIME	WALKERS/JOGGERS	CYCLISTS
13:15	0	1
13:30	0	2
13:45	0	11
14:00	2	7
TOTAL	2	21
14:15	2	10
14:30	0	11
14:45	0	7
15:00	3	5
TOTAL	5	33
15:15	0	7
15:30	0	9
15:45	0	11
16:00	0	8
TOTAL	0	35
16:15	0	4
16:30	1	14
16:45	0	11
17:00	0	14
TOTAL	1	43
17:15	3	17
17:30	1	17
17:45	1	28
18:00	4	32
TOTAL	9	94
18:15	4	36
18:30	3	39
18:45	1	35
19:00	1	48
TOTAL	9	158

SOUTHBOUND

END TIME	WALKERS/JOGGERS	CYCLISTS
13:15	1	0
13:30	0	2
13:45	0	5
14:00	1	5
TOTAL	2	12
14:15	0	8
14:30	1	7
14:45	2	4
15:00	2	11
TOTAL	5	30
15:15	0	9
15:30	0	8
15:45	0	10
16:00	0	6
TOTAL	0	33
16:15	0	4
16:30	1	6
16:45	1	7
17:00	2	2
TOTAL	4	19
17:15	1	10
17:30	2	11
17:45	1	15
18:00	1	7
TOTAL	5	43
18:15	7	12
18:30	0	13
18:45	7	23
19:00	4	27
TOTAL	18	75

Census 2000 Demographic Data for Dalecarlia Reservoir and Surrounding Jurisdictions

Demographics (2000)	ROI	DC District of Columbia	MD Frederick County	MD Montgomery County	MD Prince George's County	VA Arlington County	VA City of Alexandria	VA City of Fairfax	VA City of Falls Church	VA City of Manassas	VA City of Manassas Park	VA Fairfax County	VA Loudoun County	VA Prince William County
Total Population 1990	3,923,600	537,218	240,346	989,655	729,268	170,936	111,183	19,622	9,578	27,957	6,797	818,584	86,129	215,686
Total Population 2000	4,450,300	572,059	195,277	873,341	801,515	189,453	128,283	21,498	10,377	35,135	10,290	969,749	169,599	280,813
Percent Change 1990-2000	13.42	6.49	30.00	15.40	9.90	10.80	15.40	9.60	8.30	25.68	51.40	18.50	96.90	30.20
Persons per Square Mile	1,474	9,317	295	1,762	1,651	7,323	8,451	3,407	5,215	3,537	4,129	2,455	326	831
Projected Growth 2015	5,392,900	588,000	260,000	975,000	886,100	207,200	138,700	22,800	10,800	37,600	15,500	1,155,600	371,200	369,200
Percent Change 2000-2015	21.18	2.79	33.14	11.64	10.55	9.37	8.12	6.06	4.08	7.02	50.63	19.16	118.87	31.48
Median Age (years)	34.90	34.60	35.60	36.80	33.30	34.00	34.40	37.00	39.70	31.30	30.30	37.00	33.60	31.90
Average household size	2.59	2.16	2.72	2.66	2.74	2.15	2.04	2.61	2.31	2.88	3.16	2.74	2.82	2.94
Average family size	NA	3.07	3.16	3.19	3.25	2.96	2.87	3.07	3.01	3.39	3.47	3.20	3.24	3.32
Veterans (% of civilians)	12.00	9.80	14.30	9.90	13.40	10.00	11.30	13.10	14.70	14.20	12.60	13.50	13.30	18.50

Environmental Justice Demographics (2000)	ROI	DC District of Columbia	MD Frederick County	MD Montgomery County	MD Prince George's County	VA Arlington County	VA City of Alexandria	VA City of Fairfax	VA City of Falls Church	VA City of Manassas	VA City of Manassas Park	VA Fairfax County	VA Loudoun County	VA Prince William County
White (%)	57.00	30.78	89.33	64.78	27.04	68.94	59.79	72.91	84.97	72.10	72.80	69.91	82.79	68.93
Black or African American (%)	28.20	60.00	6.40	15.10	62.70	9.30	22.50	5.10	3.30	12.90	11.20	8.60	6.90	18.80
American Indian & Alaska Native (%)	0.30	0.30	0.21	0.29	0.35	0.35	0.28	0.34	0.24	0.40	0.40	0.26	0.21	0.39
Asian, Hawaiian and Other Pacific Islander (%)	7.60	2.70	1.70	11.30	3.90	8.60	5.70	12.20	6.50	6.90	4.20	13.00	5.30	3.80
Some other race (%)	4.00	3.84	0.92	5.00	3.38	8.33	7.38	6.17	2.52	7.90	8.10	4.54	2.26	4.35
Two or more races (%)	3.00	2.35	1.47	3.45	2.61	4.34	4.27	3.26	2.43	3.30	3.30	3.65	2.44	3.62
Hispanic Origin (%)	9.70	7.90	2.40	11.50	7.10	18.60	14.70	13.60	8.40	15.10	15.00	11.00	5.90	9.70
Poverty Rate (%)	7.60	16.90	4.80	4.20	5.80	7.10	7.10	6.00	5.20	8.00	5.20	3.50	3.10	3.20

Dalecarlia Reservoir and Treatment Plant, adjoining block groups (1-mile radius)

GEO_ID	SUMLEVEL	GEO_NAME	P003002	P003003	P003004	P003005	P003006	P003007	P003008	P003009	
Geography Identifier	Geographic Summary Level	Geography	Total population: Population of one race	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races	Total population
10000US1100100009017002	100	Block 7002, Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	147	125	3	0	18	0	1	0	147
10000US1100100009017004	100	Block 7004, Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	65	62	3	0	0	0	0	2	67
10000US1100100009017006	100	Block 7006, Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	147	132	6	0	8	0	1	0	147
10000US1100100009017007	100	Block 7007, Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	0	0	0	0	0	0	0	0	0
10000US1100100009017009	100	Block 7009, Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	0	0	0	0	0	0	0	0	0
10000US1100100009024000	100	Block 4000, Block Group 4, Census Tract 9.02, District of Columbia, District of Columbia	0	0	0	0	0	0	0	0	0
10000US2403170570230O1	100	Block 3001, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	238	230	1	0	6	0	1	0	238
10000US2403170570230I4	100	Block 3014, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	42	42	0	0	0	0	0	0	42
10000US2403170570230I5	100	Block 3015, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	76	67	2	0	5	0	2	0	76
10000US2403170570230I7	100	Block 3017, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	51	51	0	0	0	0	0	0	51
10000US2403170570230I8	100	Block 3018, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	73	70	0	0	2	0	1	0	73
10000US2403170570230I9	100	Block 3019, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	0	0	0	0	0	0	0	0	0
10000US2403170570230J0	100	Block 3020, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	0	0	0	0	0	0	0	0	0
10000US2403170570230J1	100	Block 3021, Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	68	67	0	0	1	0	0	0	68
10000US2403170580030O4	100	Block 3040, Block Group 3, Census Tract 7058, Montgomery County, Maryland	0	0	0	0	0	0	0	0	0
			907	846	15	0	40	0	6	2	909
				93.07%	1.65%	0.00%	4.40%	0.00%	0.66%	0.22%	100.00%

GEO_ID	SUMLEVEL	GEO_NAME	P053001	P087001	P087002	
Geography Identifier	Geographic Summary Level	Geography	Households: Median household income in 1999	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	% Below Poverty
15000US110100009011	150	Block Group 1, Census Tract 9.01, District of Columbia	100874	653	79	12.10%
15000US110100009012	150	Block Group 2, Census Tract 9.01, District of Columbia	200001	488	6	1.23%
15000US110100009016	150	Block Group 6, Census Tract 9.01, District of Columbia	153177	1336	30	2.25%
15000US110100009017	150	Block Group 7, Census Tract 9.01, District of Columbia	194525	1447	59	4.08%
15000US110100009023	150	Block Group 3, Census Tract 9.02, District of Columbia	149451	701	25	3.57%
15000US110100009024	150	Block Group 4, Census Tract 9.02, District of Columbia	105619	1266	37	2.92%
15000US240317057021	150	Block Group 1, Census Tract 7057.02, Montgomery County, Maryland	136009	1092	22	2.01%
15000US240317057022	150	Block Group 2, Census Tract 7057.02, Montgomery County, Maryland	96632	2033	22	1.08%
15000US240317057023	150	Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	198091	1429	26	1.82%
15000US240317058001	150	Block Group 1, Census Tract 7058, Montgomery County, Maryland	113714	2421	51	2.11%
15000US240317058002	150	Block Group 2, Census Tract 7058, Montgomery County, Maryland	145121	2485	52	2.09%
15000US240317058003	150	Block Group 3, Census Tract 7058, Montgomery County, Maryland	124253	872	6	0.69%
		Weighted Average	117552.0428	16223	415	2.56%

GEO_ID	SUMLEVEL	GEO_NAME	P007001	P007010	
Geography Identifier	Geographic Summary Level	Geography	Total population: Total	Total population: Hispanic or Latino	Percentage
15000US110010009011	150	Block Group 1, Census Tract 9.01, District of Columbia	653	63	9.65%
15000US110010009012	150	Block Group 2, Census Tract 9.01, District of Columbia	3778	190	5.03%
15000US110010009016	150	Block Group 6, Census Tract 9.01, District of Columbia	1336	69	5.16%
15000US110010009017	150	Block Group 7, Census Tract 9.01, District of Columbia	1447	66	4.56%
15000US110010009023	150	Block Group 3, Census Tract 9.02, District of Columbia	701	64	9.13%
15000US110010009024	150	Block Group 4, Census Tract 9.02, District of Columbia	1266	53	4.19%
15000US240317057021	150	Block Group 1, Census Tract 7057.02, Montgomery County, Maryland	1098	63	5.74%
15000US240317057022	150	Block Group 2, Census Tract 7057.02, Montgomery County, Maryland	2033	90	4.43%
15000US240317057023	150	Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	1429	68	4.76%
15000US240317058001	150	Block Group 1, Census Tract 7058, Montgomery County, Maryland	2421	132	5.45%
15000US240317058002	150	Block Group 2, Census Tract 7058, Montgomery County, Maryland	2485	60	2.41%
15000US240317058003	150	Block Group 3, Census Tract 7058, Montgomery County, Maryland	872	5	0.57%
		TOTAL	19519	923	4.73%

Georgetown Reservoir, Adjoining Block Groups

GEO_NAME	P006001	P006002	P006003	P006004	P006005	P006006	P006007	P006008	P007001	P007010	P053001	P087001	P087002
Geography	Total population: Total	Total population: White alone	Total population: Black or African American alone	Total population: American Indian and Alaska Native alone	Total population: Asian alone	Total population: Native Hawaiian and Other Pacific Islander alone	Total population: Some other race alone	Total population: Two or more races	Total population: Total	Total population: Hispanic or Latino	Households: Median household income in 1999	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level
Block Group 4, Census Tract 8.01, District of Columbia, District of Columbia	1458	1128	155	8	152	0	0	15	1458	62	61944	712	60
Block Group 2, Census Tract 8.02, District of Columbia, District of Columbia	1067	970	18	3	64	0	0	12	1067	27	111163	1067	148
Block Group 3, Census Tract 8.02, District of Columbia, District of Columbia	1739	1478	54	0	164	0	15	28	1739	133	61801	1739	229
	4264	3576	227	11	380	0	15	55	4264	222	234908	3518	437
	100.00%	83.86%	5.32%	0.26%	8.91%	0.00%	0.35%	1.29%	100.00%	5.21%	$78,302.67		12.42%

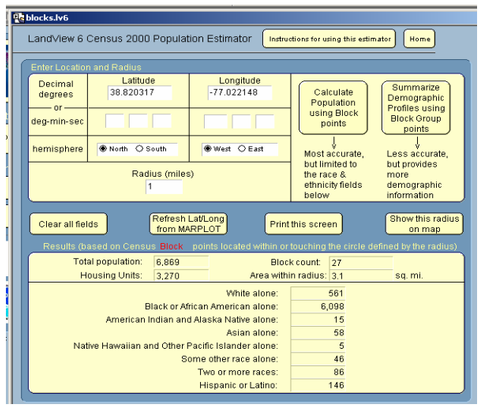
Pipeline route, block groups

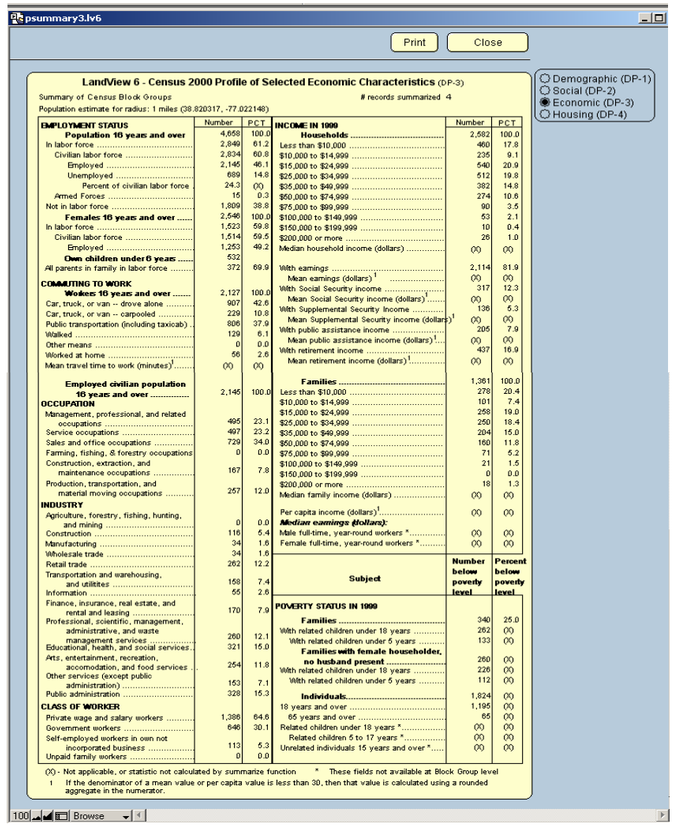
GEO_ID	SUMLEVEL	GEO_NAME	P006001	P006002	P006003	P006004	P006005	P006006	P006007	P006008	P007010	P053001	P087001	P087002	
Geography Identifier	Geographic Summary Level	Geography	Total population: Total	Total population: White alone	Total population: Black or African American alone	Total population: American Indian and Alaska Native alone	Total population: Asian alone	Total population: Native Hawaiian and Other Pacific Islander alone	Total population: Some other race alone	Total population: Two or more races	Total population: Hispanic or Latino	Households: Median household income in 1999	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Poverty by block
15000US110010001004	150	Block Group 4, Census Tract 1, District of Columbia, District of Columbia	920	832	50	0	29	0	0	9	49	101502	920	57	6.20%
15000US110010002024	150	Block Group 4, Census Tract 2.02, District of Columbia, District of Columbia	1038	969	15	0	32	0	5	17	81	84342	1038	345	33.24%
				93%	1%	0%	3%	0%	0%	2%	8%				
15000US110010008014	150	Block Group 4, Census Tract 8.01, District of Columbia, District of Columbia	1458	1128	155	8	152	0	0	15	62	61944	712	60	8.43%
15000US110010008023	150	Block Group 3, Census Tract 8.02, District of Columbia, District of Columbia	1739	1478	54	0	164	0	15	28	133	61801	1739	229	13.17%
15000US110010009017	150	Block Group 7, Census Tract 9.01, District of Columbia, District of Columbia	1447	1314	41	0	60	0	0	32	66	194525	1447	59	4.08%
15000US110010009024	150	Block Group 4, Census Tract 9.02, District of Columbia, District of Columbia	1266	1140	48	0	29	0	40	9	53	105619	1266	37	2.92%
15000US110010062021	150	Block Group 1, Census Tract 62.02, District of Columbia, District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	NA
15000US110010073011	150	Block Group 1, Census Tract 73.01, District of Columbia, District of Columbia	5234	3034	1593	44	198	17	184	164	461	49122	4631	118	2.55%
15000US110010073081	150	Block Group 1, Census Tract 73.08, District of Columbia, District of Columbia	382	40	315	0	0	0	9	18	18	0	382	345	90.31%
				10%	82%	0%	0%	0%	2%	5%	5%				
15000US240317057023	150	Block Group 3, Census Tract 7057.02, Montgomery County, Maryland	1429	1344	0	7	32	0	40	6	68	198091	1429	26	1.82%
			14913	11280.03824	2271.839058	59	696.0308285	17	293.0283772	298.0634981	991.1251551	1334083043	13564	1276	
				75.64%	15.23%	0.40%	4.67%	0.11%	1.96%	2.00%	6.65%	$89,457.72		9.41%	
				0.8203125											
				0.014450867											

End of Pipeline is at West 77deg 1min 19.72sec
North 38deg 49min 13.14sec

Pipeline terminal point (processing building) at Blue Plains, adjoining block groups (1-mile radius).
Truck exit onto Anacostia Freeway is about 500 ft N and 1000 ft E of that.

Poverty rate for individuals not calculated.
Estimate (based on total population):
27%





Sensitive Receptors

Dalecarlia Reservoir	
Name	**Type**
Wesley Seminary	School
Crescent Trail	Park
Spring Valley Park	Park
Chesapeake and Ohio Canal National Park	Reserve
Friendship Recreation Center	Recreation
Little Falls	River
Chesapeake Canal	River

Georgetown Reservoir	
Name	**Type**
Hardy Middle School	School
Georgetown Day School	School
Georgetown University	School
Harrison School	School
Woodmont School	School
Mt. Vernon Junior College & Seminary	School
Conduit Road School	School
Hardy Playground	Park
Reservoir Playground	Park
Chesapeake and Ohio Canal National Park	Reserve
Hardy Recreation Center	Recreation
Riverside Hospital	Hospital
Georgetown University Hospital	Hospital
Engine Company 29	Fire

Pipeline	
Name	**Type**
Key Elementary School	School
Prospect Learning Center	School
Hyde Elementary School	School
Saint Stevens School	School
Saint Stephens School	School
Stevens Junior High School	School
Francis Junior High School	School
George Washington University	School
Schools Without Walls Senior High School	School
Jefferson Junior High School	School
Hawthorne High School	School
Leckie Elementary School	School
Patterson Elementary School	School
National Mall	Feature
Reflecting Pool	Feature
East Potomac Park	Park
International Athletic Park	Park
Chesapeake and Ohio Canal National Park	Reserve
Palisades Park and Recreation Center	Recreation
The Potomac Gorge	Park
Georgetown Playground and Recreation Center	Park
Georgetown Waterfront Park	Park
Rock Creek Park	Park
James Monroe Park	Park
Lincoln Memorial	Park
West Potomac Park	Park
Jefferson Memorial	Park
Potomac River	River
Rock Creek	River
Anacostia River	River

Economic Development (2000)	ROI	DC District of Columbia	MD Frederick County	MD Montgomery County	MD Prince George's County	VA Arlington County	VA City of Alexandria	VA City of Fairfax	VA City of Falls Church	VA City of Manassas	VA City of Manassas Park	VA Fairfax County	VA Loudoun County	VA Prince William County
Total labor force	2,360,346	298,225	107,151	477,123	431,120	120,803	80,949	12,361	6,072	19,118	5,672	548,812	95,686	157,254
Unemployment (%)	3.7	6.8	2.2	2.2	4.1	2	2.3	1.6	2.1	2.8	1.7	1.9	1.6	2.2
At-place employment (2002)	2,553,077	663,100	81,828	450,197	305,318	151,376	88,065	17,913	14,096	20,095	3,721	523,431	96,739	84,521
Income	$42,726	$39,970	$32,134	$49,107	$30,340	$49,683	$48,427	$67,642	$74,924	$60,409	$60,794	$51,596	$39,055	$30,602

At-place Employment by Industrial Group	PMSA Total (2002)
Manufacturing	65,521
Natural Resources & Mining	1,434
Construction	153,589
Trade, Transportation and Utilities	355,634
Information	114,892
Financial Activities	145,168
Professional and Business Services	549,145
Educational & Health Services	261,520
Leisure & Hospitality	212,515
Other Services	139,600
Federal Government	321,382
Local Government	183,963
State Government	75,209
Other/Unclassifiable	1,774
Total	**2,581,346**

MWCOG region, 2002	million			
office space	$843	$ 843,000,000	0.0%	7.5 million square feet
educational and medical space	$334	$ 334,000,000	0.0%	2.1 million square feet
other commercial space	$468	$ 468,000,000	0.0%	1.8 million square feet
		$ 1,645,000,000	0.0%	

Source: MWCOG Commercial Construction Indicators

Housing	Total	Occupied	Vacancy Rate
MWCOG	1,684,215	1,607,261	4.6%
District of Columbia	274,845	248,338	9.6%

Source: MWCOG "Our Changing Reqion, Census 2000"

Socieconomic Calculations:

	Estimated Construction cost ($2004)	% of 2001-02 regional construction starts**	Estimated Construction Labor (FTEs)*	O&M Cost (Annual)	Estimated O&M Labor (FTEs)
Alternative A-Dalecarlia Monofill	$56,894,000	1.6%	340	$877,000	3.333
Alternative B-Dedicated Pipeline to Blue Plains	$145,197,000	4.0%	867	$1,998,000	2.333
Alternative C-Onsite Processing with Hauling	$50,197,000	1.4%	300	$1,923,000	2.333

based on:

*Labor-Avg construction income, DC-Mont-Arl-Ffx, 2002: $55,262
and national average labor/materials breakdown for nonbuilding facilities

** Value of construction starts in region, 2001-2002: $3,662,187,091

Additional Public Safety Resources Needed (during construction period)

	Estimated construction workers (FTEs)	Police (FTEs)	Fire fighter (FTEs)	Fire fighting vehicles	EMS personnel (FTEs)	EMS vehicles	Annual EMS calls
Alternative A-Dalecarlia Monofill	340	0.17	0.14	0.02	0.01	0.003	3.10
Alternative B-Pipeline to Blue Plains	867	0.43	0.36	0.04	0.03	0.01	7.91
Alternative C-Onsite Processing with Hauling	300	0.15	0.12	0.02	0.01	0.003	2.74

Nonresidential Workforce Planning Factor	Resource
0.5 per 1,000 pop	Police
0.4 per 1,000 pop	Fire fighter FTEs
0.1 per 1,000 pop	Fire fighting vehicles
1.0 per 30,000 pop	EMS personnel FTEs
0.3 per 30,000 pop	EMS vehicles
9.1 per 1,000 pop	Annual EMS calls

Source: Burchell, Robert W., David Listokin, et al. *Development Impact Assessment Handbook.* Washington, DC: the Urban Land Institute, 1994.

Average Construction Labor and Materials Breakdown	Labor	Materials
TOTAL CONSTRUCTION ACTIVITY	34.2%	57.8%
NEW CONSTRUCTION	30.6%	61.3%
Hotels & Motels	29.2%	63.8%
Industrial Buildings	38.0%	56.8%
Office Buildings	33.8%	61.3%
Garages & Service Stations	33.1%	59.0%
Stores & Restaurants	35.9%	61.9%
Amusement & Recreation Buildings	35.0%	60.5%
Local Transit Facilities	29.6%	63.0%
Other nonbuilding facilities	33.0%	60.6%

Source: US Army Corps of Engineers, Economic Impact Forecasting System (EIFS) model documentation (calculated %'s)

CA05N Personal income by major source and earnings by industry -- (thousands of dollars) http://www.bea.gov/bea/regional/reis/ downloaded 10/20/04

Washington-Baltimore-Northern Virginia, DC-MD-VA-WV (CSA)			Washington-Baltimore-Northern Virginia, DC-MD-VA-WV (CSA)		calc: Avg earnings by industry	District of Columbia		calc: Avg earnings by industry	Montgomery		calc: Avg earnings by industry	Arlington		calc: Avg earnings by industry	Fairfax, Fairfax City + Falls Church		calc: Avg earnings by industry
LineCode	LineTitle		2001	2002		2001	2002		2001	2002		2001	2002		2001	2002	
(note: other income data deleted, not applicable)																	
89548	82	Nonfarm earnings	$257,315,870	$265,918,150		$52,644,199	$55,651,184		$31,014,607	$32,187,758		$13,572,015	$13,810,332		$43,733,909	$44,174,859	
89548	90	Private earnings	$192,812,940	$196,328,267		$31,637,300	$32,822,589		$24,679,471	$25,354,799		$8,555,573	$8,589,117		$37,964,084	$37,847,521	
89548	100	Forestry, fishing, related activities, and other 7/	(D)	(D)		(D)	(D)		$9,555	$9,562		$215	$221		$4,953	$4,905	
89548	101	Forestry and logging	(D)	(D)		$217	$224		$116	$120		$106	$109		$800	$815	
89548	102	Fishing, hunting, and trapping	(D)	(D)		$220	$226		$237	$243		$58	$59		(D)	(D)	
89548	103	Agriculture and forestry support activities	(D)	(D)		$466	$518		$9,202	$9,199		$51	$53		(D)	(D)	
89548	104	Other 7/	(D)	(D)		(D)	(D)		$0	$0		$0	$0		$0	$0	
89548	200	Mining	(D)	(D)		(D)	(D)		$13,574	$15,270		$1,263	$1,211		(D)	$198,398	
89548	201	Oil and gas extraction	(D)	(D)		$10,701	$10,489		$1,165	$1,061		$915	$827		$145,563	$131,380	
89548	202	Mining (except oil and gas)	(D)	(D)		$1,603	(D)		(D)	(D)		$332	$367		(D)	(D)	
89548	203	Support activities for mining	(D)	(D)		(D)	(D)		(D)	(D)		(L)	(L)		(D)	(D)	
89548	300	Utilities	(D)	(D)		(D)	(D)		$1,148,100	$1,244,490		(D)	(D)		(D)	(D)	
		calc: average for DC, Montgomery, Arlington, Fairfax counties:															
89548	**400**	**Construction**	**(D)**	**(D)**	**$55,262**	**$678,779**	**$767,305**	**$52,541**	**$1,888,595**	**$1,955,722**	**$52,015**	**$391,738**	**$335,759**	**$63,148**	**$2,513,835**	**$2,531,417**	**$58,009**
89548	401	Construction of buildings	(D)	(D)		$261,534	$303,379		$718,294	$758,255		$97,154	$107,532		(D)	(D)	
89548	402	Heavy and civil engineering construction	(D)	(D)		$154,923	$176,385		$159,211	$158,691		$76,495	$39,138		(D)	(D)	
89548	403	Specialty trade contractors	$8,687,037	$8,852,216		$262,322	$287,541		$1,011,090	$1,038,776		$218,089	$189,089		$1,241,050	$1,251,234	

(note: remaining industry data deleted, not applicable)

CA25N Total full-time and part-time employment by industry -- (number of jobs) http://www.bea.gov/bea/regional/reis/

			Washington-Baltimore-Northern Virginia, DC-MD-VA-WV (CSA)		District of Columbia		Montgomery		Arlington		Fairfax, Fairfax City + Falls Church	
LineCode		LineTitle	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
89548	10	Total employment	5,135,441	5,187,017	764,343	779,008	608,558	616,195	203,285	198,851	760,567	754,590
89548	20	Wage and salary employment	4,383,418	4,391,631	705,206	716,691	494,956	495,742	182,218	176,595	633,929	619,943
89548	40	Proprietors employment	752,023	795,386	59,137	62,317	113,602	120,453	21,067	22,256	126,638	134,647
89548	50	Farm proprietors employment	13,091	12,979	-	-	503	495	-	-	134	134
89548	60	Nonfarm proprietors employment 2/	738,932	782,407	59,137	62,317	113,099	119,958	21,067	22,256	126,504	134,513
89548	70	Farm employment	18,037	18,146	-	-	861	863	-	-	197	204
89548	80	Nonfarm employment	5,117,404	5,168,871	764,343	779,008	607,697	615,332	203,285	198,851	760,370	754,386
89548	90	Private employment	4,154,443	4,186,062	519,622	526,548	519,438	524,267	148,569	145,727	666,667	657,487
89548	100	Forestry, fishing, related activities, and other 3/	(D)	(D)	(D)	(D)	463	471	26	26	264	255
89548	200	Mining	(D)	(D)	(D)	(D)	701	720	166	165	(D)	681
89548	300	Utilities	(D)	(D)	(D)	(D)	1,139	1,389	(D)	(D)	(D)	(D)
89548	400	Construction	(D)	(D)	13,720	14,604	36,688	37,599	5,915	5,317	44,855	43,638
89548	500	Manufacturing	(D)	162511 E	3,884	(D)	20,273	18,812	(D)	(D)	(D)	13,091
89548	600	Wholesale trade	(D)	(D)	4,781	4,658	13,231	13,081	(D)	2,346	20,533	19,503
89548	700	Retail trade	488,323	487,576	20,271	20,240	61,445	59,878	10,488	10,427	71,561	71,480
89548	800	Transportation and warehousing	(D)	(D)	(D)	(D)	8,715	8,800	10,574	9,937	(D)	(D)
89548	900	Information	(D)	156986 E	(D)	28,260	21,803	19,834	10,524	9,493	52,724	41,706
89548	1000	Finance and insurance	197182 E	203512 E	21,840	22,058	31,700	32,534	3,849	3,957	31,299	32,918
89548	1100	Real estate and rental and leasing	175829 E	201256 E	17,097	18,596	29,282	33,054	6,963	7,701	30,712	35,734
89548	1200	Professional and technical services	630234 E	630,818	116,391	117,974	93,398	94,887	38,570	36,700	153,812	151,075
89548	1300	Management of companies and enterprises	35753 E	34395 E	2,582	2,486	1,906	1,888	3,636	3,306	16,597	16,064
89548	1400	Administrative and waste services	314194 E	308853 E	45,622	45,307	41,612	40,239	12,490	11,847	51,654	50,036
89548	1500	Educational services	133837 E	138616 E	42,218	42,471	11,781	12,426	5,035	6,246	12,006	12,157
89548	1600	Health care and social assistance	438249 E	455382 E	56,879	60,738	57,653	59,822	9,600	9,582	52,251	54,647
89548	1700	Arts, entertainment, and recreation	95449 E	99050 E	10,319	10,746	13,794	14,493	2,978	2,975	15,158	15,643
89548	1800	Accommodation and food services	(D)	304304 E	(D)	44,648	33,807	33,317	12,802	13,242	39,435	39,725
89548	1900	Other services, except public administration	313,598	320,801	66,084	67,088	40,047	41,023	11,435	11,414	41,702	42,900
89548	2000	Government and government enterprises	962,961	982,809	244,721	252,460	88,259	91,065	54,716	53,124	93,703	96,899
89548	2001	Federal, civilian	411,724	424,514	182,756	190,821	41,920	42,815	30,091	28,048	33,712	36,442
89548	2002	Military	107,207	103,694	22,991	22,324	6,673	6,128	14,610	14,906	7,064	6,341
89548	2010	State and local	444,030	454,601	38,974	39,315	39,666	42,122	10,015	10,170	52,927	54,116
89548	2011	State government	102154 E	103495 E	-	-	1,110	(D)	511	483	9,724	9,895
89548	2012	Local government	315563 E	(D)	38,974	39,315	38,556	(D)	9,504	9,687	43,203	44,221

This document contains the sampling protocol and other pertinent information needed to sample and process water treatment residuals from the Dalecarlia Water Treatment Plant. Please review this document prior to sampling as it includes:

- What tests will be performed
- Address of laboratory performing analysis
- The sampling location
- Instructions on how to sample, pack and ship each sample

Tests to be performed:

The following tests will be perfomed by **A&L Eastern – Agricultural Laboratories, Inc.** or by their chosen sub-contractor:

Environmental Analysis	Metals
Total Solids	Cadmium
TKN	Chromium
Phosphorous	Lead
Potassium	Molybdenum
Sulfur	Nickel
Calcium	Arsenic
Magnesium	Mercury
Sodium	Selenium
Iron	
Aluminum	Other
Manganese	Nitrogen-Ammonia
Copper	Nitrate ($NO_3 + NO_2$)
Zinc	Toxic Characteristic Leaching Procedure (to be sub-contracted by A&L Eastern – Agricultural Laboratories, Inc.)

The following tests will be perfomed by **Eno River Labs, LLC**:

Total Dioxins

The following test will be performed by the **Washington Suburban Sanitary Commission Consolidated Laboratory:**

Fecal Coliform

Addresses of Laboratories

A&L Eastern – Agricultural Laboratories, Inc.
7621 Whitepine Road
Richmond, VA
23237

Eno River Labs, LLC
2445 S. Alston, Ave
Durham, NC
27713

WSSC Consolidated Laboratory
Laboratory Services Group
12245 Tech Rd.
Silver Spring, MD 20904-1969

Sampling Location

In order to mimic real world conditions, the samples will be taken from the drained sedimentation basins at the Dalecarlia Water Treatment Plant. The residuals remaining at the bottom of the tank will most likely be between 15-30% solids. The plant will begin dewatering the sedimenation basins on October 27th, 2004. The samples will be taken the morning of October 28th, 2004 from Sedimentation Basin 1.

Sampling, Packing and Shipping Instructions

Environmental Analysis/Metals/Other

The samples will be taken in sterile, quart-sized, wide-mouthed glass sample bottles. Four quarts of residuals will be collected, two quarts will be sent to A & L Eastern – Agricultural Laboratories, Inc. and two quarts are duplicates to be refrigerated or kept on ice till confirmation of reciept of samples is received from the laboratory.

Sample bottle labels will be filled out and placed on the sample bottle in the field. Upon collection, the samples will be wrapped in insulating wrapping and placed in a cooler on ice. The chain of custody will be filled out once the samples have been taken and placed in a ziploc bag in the cooler to be sent to the laboratory. The samples will be shipped overnight via FedEx to A & L Eastern – Agricultural Laboratories, Inc.

Total Dioxins

The samples will be taken in an amber, glass sample bottles with teflon-lined caps provided by Eno River Labs. Approximately 20 oz total of sample will be taken. Duplicate sample will be taken and kept on ice or refrigerated until confirmation of reciept of samples has been received from the laboratory.

Sample bottle labels will be filled out and placed on the sample bottle in the field. Upon collection, the samples will be wrapped in insulating wrapping and placed in a cooler on ice. The chain of custody will be filled out once the samples have been taken and placed in a ziploc bag in the cooler to be sent to the laboratory. The samples will be shipped overnight via FedEx to Eno River Labs.

Fecal Coliform

The samples will be taken in sterile, plastic, 120 mL-sized sample bottles. Approximately 500 mL of sample will be taken. Duplicate sample will be taken and kept on ice or refrigerated until it is no longer needed.

Sample bottle labels will be filled out and placed on the sample bottle in the field. Upon collection, the samples will be wrapped in insulating wrapping and placed in a cooler on ice. The chain of custody will be filled out once the samples have been taken and placed in a ziploc bag in the cooler to be taken to the laboratory. The samples will be driven within 6 hours by the sampler to the WSSC Consolidated Laboratory.

R312-042 ADDITION
11/22/04

REPORT OF ANALYSIS

CLIENT: A&L Eastern Agricultural Laboratories
ATTN: Dr. Paul Chu
ADDRESS: 7621 Whitepine Road
CITY: Richmond, VA 23237-2296
PHONE: 804-743-9401
FAX: 804-271-6446

CH2M
JENNIFER ARMSTRONG
13921 PARK CENTER RD.
SUITE 600
HERNDON VA 20171

SPECIAL NOTES:

SAMPLE RECEIPT
DATE: 11/4/2004 TIME: 1530
GRAB COLLECTION
DATE: 10/28/2004 TIME: 0845
COLLECTED BY: CLIENT
PICK UP BY: REED - CW
NUMBER OF CONTAINERS: 1
GOOD CONDITION ☑ Good ☐ Other (See C-O-C)

RE: DALECAVLIA RESIDUALS

SAMPLE ID: 43805
SAMPLE NO 04-21303

Parameter	EPA HW No.	Method Number	JRA QL	Regulatory Level	Result	Unit	Analyst/Date/Time
Toxic Characteristic Leaching Procedure by SW-846 Method 1311							
Arsenic	D004	6010B	0.002	5	0.003	mg/L	TLG 11/10/2004 1346
Barium	D005	6010B	0.005	100	0.212	mg/L	TLG 11/10/2004 1346
Benzene	D018	8260B	0.005	0.5	< 0.005	mg/L	TAG 11/11/2004 1534
Cadmium	D006	6010B	0.0005	1	0.0010	mg/L	TLG 11/10/2004 1346
Carbon Tetrachloride	D019	8260B	0.005	0.5	< 0.005	mg/L	TAG 11/11/2004 1534
Chlordane	D020	8270C	0.005	10	< 0.005	mg/L	CLH 11/15/2004 2335
Chlorobenzene	D021	8260B	0.005	100	< 0.005	mg/L	TAG 11/11/2004 1534
Chloroform	D022	8260B	0.005	6	< 0.005	mg/L	TAG 11/11/2004 1534
Chromium	D007	6010B	0.001	5	0.013	mg/L	TLG 11/10/2004 1346
o-Cresol	D023	8270C	0.005	200	< 0.005	mg/L	CLH 11/15/2004 2335
m/p-Cresol	D024	8270C	0.01	200	< 0.01	mg/L	CLH 11/15/2004 2335
Cresol	D026	8270C	0.005	200	< 0.005	mg/L	CLH 11/15/2004 2335
2,4-D	D016	8151A	0.004	10	< 0.004	mg/L	BRD 11/10/2004 1506
1,4-Dichlorobenzene	D027	8260B	0.005	7.5	< 0.005	mg/L	TAG 11/11/2004 1534
1,2-Dichloroethane	D028	8260B	0.005	0.5	< 0.005	mg/L	TAG 11/11/2004 1534
1,1-Dichloroethylene	D029	8260B	0.005	0.7	< 0.005	mg/L	TAG 11/11/2004 1534
2,4-Dinitrotoluene	D030	8270C	0.005	0.13	< 0.005	mg/L	CLH 11/15/2004 2335
Endrin	D012	8270C	0.005	0.008	< 0.005	mg/L	CLH 11/15/2004 2335
Heptachlor (+epoxide)	D031	8270C	0.005	0.02	< 0.005	mg/L	CLH 11/15/2004 2335
Hexachlorobenzene	D032	8270C	0.005	0.13	< 0.005	mg/L	CLH 11/15/2004 2335
Hexachloro-1,3-butadiene	D033	8270C	0.005	0.5	< 0.005	mg/L	CLH 11/15/2004 2335

REPORT OF ANALYSIS

SAMPLE ID: 43805
SAMPLE NO 04-21303

Parameter	EPA HW No.	Method Number	JRA QL	Regulatory Level	Result	Unit	Analyst/Date/Time
Hexachloroethane	D034	8270C	0.005	3	< 0.005	mg/L	CLH 11/15/2004 2335
Lead	D008	6010B	0.005	5	0.006	mg/L	TLG 11/10/2004 1346
Lindane	D013	8270C	0.005	0.03	< 0.005	mg/L	CLH 11/15/2004 2335
Mercury	D009	7470A	0.0002	0.2	< 0.0002	mg/L	TLG 11/11/2004 1430
Methoxychlor	D014	8270C	0.005	0.4	< 0.005	mg/L	CLH 11/15/2004 2335
Methyl ethyl Ketone	D035	8260B	0.1	200	< 0.1	mg/L	TAG 11/11/2004 1534
Nitrobenzene	D036	8270C	0.005	2	< 0.005	mg/L	CLH 11/15/2004 2335
Pentachlorophenol	D037	8270C	0.1	100	< 0.1	mg/L	CLH 11/15/2004 2335
Pyridine	D038	8270C	0.025	5	< 0.025	mg/L	CLH 11/15/2004 2335
Selenium	D010	6010B	0.005	1	< 0.005	mg/L	TLG 11/10/2004 1346
Silver	D011	6010B	0.001	5	< 0.001	mg/L	TLG 11/10/2004 1346
Tetrachloroethylene	D039	8260B	0.005	0.7	< 0.005	mg/L	TAG 11/11/2004 1534
Toxaphene	D015	8270C	0.1	0.5	< 0.1	mg/L	CLH 11/15/2004 2335
Trichloroethylene	D040	8260B	0.005	0.5	< 0.005	mg/L	TAG 11/11/2004 1534
2,4,5-Trichlorophenol	D041	8270C	0.01	40	< 0.01	mg/L	CLH 11/15/2004 2335
2,4,6-Trichlorophenol	D042	8270C	0.01	2	< 0.01	mg/L	CLH 11/15/2004 2335
2,4,5-TP	D017	8151A	0.004	1	< 0.004	mg/L	BRD 11/10/2004 1506
Vinyl Chloride	D043	8260B	0.01	0.2	< 0.01	mg/L	TAG 11/11/2004 1534

NOTE: *JRA Quantification Level is the concentration of the lowest calibration standard above zero with a reliable signal.

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RESPECTFULLY SUBMITTED

Elaine Claiborne
Laboratory Director
18-Nov-04

Report Number:
2004-R312-042

Lab Number:
43805 Page 1

Account Number:
77596

A&L EASTERN AGRICULTURAL LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237 • (804) 743-9401
Fax No. (804) 271-6446

Tricia

Samples Submitted By:
JENNIFER ARMSTRONG

Send To: CH2M HILL/GLENN PALEN
13921 PARK CENTER RD
SUITE 600
HERNDON VA 20171

DALECARLIA RESIDUALS

Sample ID: DALECARLIA RESIDUALS

Date Sampled: 10/28/2004
Date Received: 11/01/2004
Date Reported: 11/03/2004

BIOSOLIDS ANALYSIS REPORT

Parameter	Result (%)	Result (mg/kg)	Detection Limit (mg/kg)	Analyst	Analysis Date	Analysis Time	Method Reference
SOLIDS(AS IS)	6.23	62300	100	JCM	11/01/2004	16:00	SM 2540 G
NITROGEN(TKN)	0.80	8000	100	KCS	11/02/2004	12:30	EPA 351.3
PHOSPHORUS	0.42	4200	100	JCM	11/02/2004	15:30	SW 846-6010B
POTASSIUM	0.09	900	100	JCM	11/02/2004	15:30	SW 846-6010B
SULFUR	0.42	4200	100	JCM	11/02/2004	15:30	SW 846-6010B
CALCIUM	1.02	10200	100	JCM	11/02/2004	15:30	SW 846-6010B
MAGNESIUM	0.25	2500	100	JCM	11/02/2004	15:30	SW 846-6010B
SODIUM	0.02	200	100	JCM	11/02/2004	15:30	SW 846-6010B
IRON		18400	1	JCM	11/02/2004	15:30	SW 846-6010B
ALUMINUM		151300	10	JCM	11/02/2004	15:30	SW 846-6010B
MANGANESE		1970	1	JCM	11/02/2004	15:30	SW 846-6010B
COPPER		58	1	JCM	11/02/2004	15:30	SW 846-6010B
ZINC		102	1	JCM	11/02/2004	15:30	SW 846-6010B
AMMONIA-NITROGEN	0.00	ND	100	KCS	11/02/2004	11:30	EPA 350.2
NO3-NO2 NITROGEN		147	10	KCS	11/02/2004	16:00	SM 4500-NO3 F
CADMIUM		1.5	1	JCM	11/02/2004	15:30	SW 846-6010B
CHROMIUM		10	5	JCM	11/02/2004	15:30	SW 846-6010B
NICKEL		43	5	JCM	11/02/2004	15:30	SW 846-6010B

TCLP TO FOLLOW

ALL VALUES ARE ON A DRY WEIGHT BASIS EXCEPT AS NOTED.

PAUL C. H. CHU C. NORMAN JONES

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Report Number:
2004-R312-042

Lab Number:
43805 Page 2

Account Number:
77596

A&L EASTERN AGRICULTURAL LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237 • (804) 743-9401
Fax No. (804) 271-6446

Samples Submitted By:
JENNIFER ARMSTRONG

Send To: CH2M HILL/GLENN PALEN
13921 PARK CENTER RD
SUITE 600
HERNDON VA 20171

DALECAVLIA RESIDUALS

Date Sampled: 10/28/2004
Date Received: 11/01/2004
Date Reported: 11/03/2004

Sample ID: DALECAVLIA RESIDUALS

BIOSOLIDS ANALYSIS REPORT

Parameter	Result (%)	Result (mg/kg)	Detection Limit (mg/kg)	Analyst	Analysis Date	Analysis Time	Method Reference
LEAD		206	5	JCM	11/02/2004	15:30	SW 846-6010B
ARSENIC		43.93	0.2	KMM	11/03/2004	15:00	SW 846-7061A
MERCURY		ND	0.2	KMM	11/03/2004	15:00	SW 846-7471A
SELENIUM		1.85	0.1	KMM	11/03/2004	15:00	SW 846-7741A
ORGANIC NITROGEN	0.80	8000	100	DCH	11/02/2004	.	CALCULATION
MOLYBDENUM		ND	5	JCM	11/02/2004	15:30	SW 846-6010B

TCLP TO FOLLOW

ALL VALUES ARE ON A DRY WEIGHT BASIS EXCEPT AS NOTED.

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Washington Suburban Sanitary Commission
Laboratory Services Group
12245 Tech Rd. Silver Spring, MD 20904-1969
Analytical Report
12/10/04

Client: CH2M Hill
Project: WQ BASIN
Description: Basin Project

Sample: L73035-01 CH2 M Hill 28-Oct-04 08:45 am Collected by: J.ARMSTRONG Certification No.

Product	Parameter		Result	Units	RDL	Analyzed	Analyst	Method	Approval
FCOLI	Fecal Coliforms MPN	<	31000	MPN/g TS		10/28/04	J.PENNELLA	SM 9221 E	YES
TS PERCENT	Percent Total Solids		6.41	%		10/29/04	G.LE	SM 2540 B	YES
TVS PERCENT	Total Volatile Solids		25.90	%		10/29/04	G.LE	SM 208 E	YES

< - less than

Eno River Labs, LLC

Prepared for: CH2M Hill
Reference ID: WATER TREATMENT SLUDGE

Project Summary 64154
Method 1613B
Concentrations shown in pg/g

	BLANK	DALECARLIA RESIDUAL
Total TEQ	**0.9**	**0.2**
TEQ based on EPA 1989a		
Analytes		
2,3,7,8-TCDD	< 1.00	< 1.00
1,2,3,7,8-PeCDD	< 5.00	< 5.00
1,2,3,4,7,8-HxCDD	< 5.00	< 5.00
1,2,3,6,7,8-HxCDD	< 5.00	< 5.00
1,2,3,7,8,9-HxCDD	< 5.00	< 5.00
1,2,3,4,6,7,8-HpCDD	< 5.00	< 5.00
1,2,3,4,6,7,8,9-OCDD	< 10.0	10.4 B
2,3,7,8-TCDF	< 1.00	< 1.00
1,2,3,7,8-PeCDF	< 5.00	< 5.00
2,3,4,7,8-PeCDF	< 5.00	< 5.00
1,2,3,4,7,8-HxCDF	< 5.00	< 5.00
1,2,3,6,7,8-HxCDF	< 5.00	< 5.00
2,3,4,6,7,8-HxCDF	< 5.00	< 5.00
1,2,3,7,8,9-HxCDF	< 5.00	< 5.00
1,2,3,4,6,7,8-HpCDF	< 5.00	< 5.00
1,2,3,4,7,8,9-HpCDF	< 5.00	< 5.00
1,2,3,4,6,7,8,9-OCDF	< 10.0	< 10.0
Total TCDD	< 1.00	< 1.00
Total PeCDD	< 5.00	< 5.00
Total HxCDD	< 5.00	< 5.00
Total HpCDD	< 5.00	< 5.00
Total TCDF	< 1.00	< 1.00
Total PeCDF	< 5.00	< 5.00
Total HxCDF	< 5.00	< 5.00
Total HpCDF	< 5.00	< 5.00
Extraction Date	11/3/2004	11/3/2004
Analysis Date	11/10/2004	11/10/2004
Primary Filename	T043857	T043858
Confirm Filename	N/A	N/A
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected -1613 Minimum Levels reported
[..] EMPC Value
B Analyte detected in Blank
C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range
N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

2445 S. Alston Ave. • Durham, NC 27713 • (919) 281-4040 • FAX (919) 281-4070
www.enoriverlabs.com