



Visualizations

for

National Park Service

George Washington Memorial Parkway

February 2020



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Meeting Summary



On-going coordination with NPS on Project NEXT has been in progress April 2019:

Total of seven face-to-face consultation meetings between VDOT and NPS in the past year:

- ✓ **4/4/2019:** VDOT presented initial project conceptual design introduction.
- ✓ **6/24/2019:** VDOT presented traffic sensitivity analysis for GWMP interchange ramps.
- ✓ **08/21/2019:** VDOT presented potential preliminary signing options for GWMP guide signs and toll pricing signs.
- ✓ **10/21/2019:** VDOT presented minimization and mitigation to proposed signage and footprint impacts, by: (1) relocating and consolidating signs with existing and future signage associated with Maryland's project; (2) optimizing alignment and proposed grading elements. VDOT committed to prepare visualizations for NPS review and comment depicting options to reduce project footprint and impacts to NPS.
- ✓ **12/12/2019:** VDOT presented signage concept shared with FHWA and three options illustrating different impacts to tree canopy where Project NEXT ties into the GWMP. NPS requested additional visualizations of these options.
- ✓ **01/23/2020:** VDOT presented visualizations for the three concepts presented in Dec 2019. NPS requested one additional visualization associated with the pricing sign along GWMP just west of the Dead Run bridge, and one additional visualization of the Option 3 retaining wall looking east from a point further west. NPS also requested that a tree survey be conducted of the area impacted within the limits of disturbance on NPS property.
- ✓ **02/06/2020:** VDOT prepared a package of signage plans and visualizations, including a new visualization (Option 4) that partially removes vegetation on NPS property to accommodate a wall that is smaller in scale than what is included in Option 3. VDOT also presented a table and corresponding site plan that depicts the results of the tree survey.

Conceptual design has been finalized and will be made publicly available on or before February 26, 2020, as part of the March 12, 2020 Design Public Hearing materials.

Tree Survey

- a. 1967 Aerial Photograph
- b. Tree Location Study/Planview
- c. Tree Location Study Table

1967 Aerial Photograph

National Park Boundary

Option 1: Cut slope /
Limits of Construction

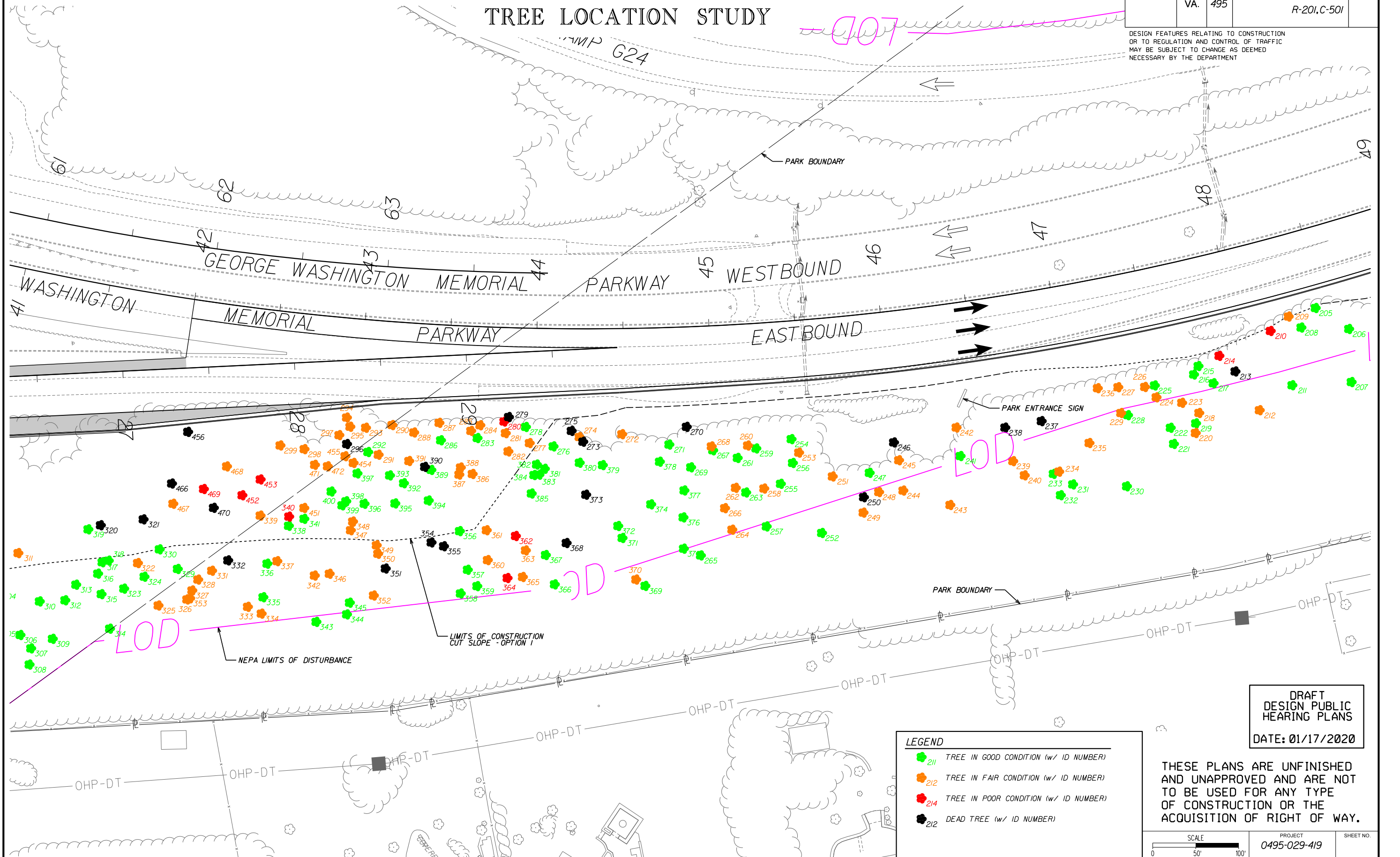


PROJECT MANAGER: Jim Steinhilber
 SURVEYED BY, DATE: Rice Associates, 2019-06-17
 DESIGN BY: HDR Engineering
 SUBSURFACE UTILITY BY, DATE: N/A

GEORGE WASHINGTON MEMORIAL PARKWAY ENTRANCE TREE LOCATION STUDY

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	495	0495-029-419 R-201, C-501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LEGEND

- 211 TREE IN GOOD CONDITION (w/ ID NUMBER)
- 212 TREE IN FAIR CONDITION (w/ ID NUMBER)
- 214 TREE IN POOR CONDITION (w/ ID NUMBER)
- 212 DEAD TREE (w/ ID NUMBER)

**DRAFT
DESIGN PUBLIC
HEARING PLANS**
DATE: 01/17/2020

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 50' 100'	PROJECT 0495-029-419	SHEET NO.
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Tree Protection Action Key

Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
205	37	tuliptree	Liriodendron tulipifera	72	Good	1	17	56		One Sided, Vines, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
206	29	tuliptree	Liriodendron tulipifera	72	Good	1	13	44		Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
207	25	tuliptree	Liriodendron tulipifera	72	Good	1	11	38		Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
208	26	tuliptree	Liriodendron tulipifera	72	Good	1	12	39		Mechanical Damage, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
209	23	tuliptree	Liriodendron tulipifera	69	Fair	1	10	35		One Sided, Vines, Mechanical Damage	No	VDOT	VDOT	VDOT	VDOT
210	23	tuliptree	Liriodendron tulipifera	44	Poor	1	10	35		One Sided, Large DW (3"+), Small DW (1-2"), Basal Decay	No	VDOT	VDOT	VDOT	VDOT
211	9	tuliptree	Liriodendron tulipifera	70	Good	1	4	14		One Sided, Large DW (3"+), Small DW (1-2"), Basal Decay	No	VDOT	VDOT	VDOT	VDOT
212	18,20	tuliptree	Liriodendron tulipifera	56	Fair	2	17	40		Basal Decay, Co-Dominant Stems	No	VDOT	VDOT	VDOT	VDOT
213	27	ZZ Unknown dead tree	ZZ Unknown dead tree	0	Dead	1	12	41			No	VDOT	VDOT	VDOT	VDOT
214	9	cherry, black	Prunus serotina	47	Poor	1	4	14	Topped and broken	Trunk Decay, Broken Limbs, Stressed, Serious Decline	No	VDOT	VDOT	VDOT	VDOT
215	7	maple, red	Acer rubrum	73	Good	1	3	11		One Sided	No	VDOT	VDOT	VDOT	VDOT
216	28	tuliptree	Liriodendron tulipifera	72	Good	1	13	42		Large DW (3"+), Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
217	9	beech, American	Fagus grandifolia	73	Good	1	4	14			No	VDOT	VDOT	VDOT	VDOT
218	14	tuliptree	Liriodendron tulipifera	69	Fair	1	6	21	Bark missing in sections	Large DW (3"+), Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
219	13	beech, American	Fagus grandifolia	70	Good	1	6	20	Some limbs rubbing/against Tree 220	Branch Decay, Suppressed, Stressed	No	VDOT	VDOT	VDOT	VDOT
220	21	tuliptree	Liriodendron tulipifera	69	Fair	1	9	32		Trunk Decay, Basal Decay, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
221	23	tuliptree	Liriodendron tulipifera	72	Good	1	10	35		Mechanical Damage, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
222	26	tuliptree	Liriodendron tulipifera	72	Good	1	12	39		Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
223	26	tuliptree	Liriodendron tulipifera	63	Fair	1	12	39		Large DW (3"+), Trunk Decay, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
224	23	tuliptree	Liriodendron tulipifera	63	Fair	1	10	35	Branches against Tree 225 causing branch decay	Basal Decay, Branch Decay, Suppressed, Stressed, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
225	12	beech, American	Fagus grandifolia	70	Good	1	5	18	Branches of Tree 224 suppressing	Suppressed	No	VDOT	VDOT	VDOT	VDOT
226	26	tuliptree	Liriodendron tulipifera	69	Fair	1	12	39		Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
227	7	maple, red	Acer rubrum	53	Fair	1	3	11		Small DW (1-2"), Branch Decay, Broken Limbs, Suppressed, Stressed, Mechanical Damage	No	VDOT	VDOT	VDOT	VDOT
228	30	tuliptree	Liriodendron tulipifera	73	Good	1	14	45		Large DW (3"+), Branch Decay, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
229	15	tuliptree	Liriodendron tulipifera	50	Fair	1	7	23	Patches of bark missing	Large DW (3"+), Small DW (1-2"), Branch Decay, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
230	26	tuliptree	Liriodendron tulipifera	72	Good	1	12	39	Minor bark missing at base	Large DW (3"+), Small DW (1-2"), Mechanical Damage	No	VDOT	VDOT	VDOT	VDOT
231	24	tuliptree	Liriodendron tulipifera	72	Good	1	11	36		Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
232	27	tuliptree	Liriodendron tulipifera	73	Good	1	12	41		Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
233	27	tuliptree	Liriodendron tulipifera	72	Good	1	12	41		Large DW (3"+), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
234	9	tuliptree	Liriodendron tulipifera	50	Fair	1	4	14		Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
235	8	cherry, black	Prunus serotina	69	Fair	1	4	12		Large DW (3"+), Branch Decay, Broken Limbs	No	VDOT	VDOT	VDOT	VDOT
236	31	tuliptree	Liriodendron tulipifera	67	Fair	1	14	47	Co-dom above 4.5 ft	Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Included Bark/Weak Union, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
237	19	ash, spp.	Fraxinus spp.	0	Dead	1	9	29			No	VDOT	VDOT	VDOT	VDOT
238	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			No	VDOT	VDOT	VDOT	VDOT

Tree Location Study Table

Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
239	25	tuliptree	Liriodendron tulipifera	69	Fair	1	11	38	Suckers from trunk at old branch sites	One Sided, Branch Decay, Broken Limbs, Stressed, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
240	23	tuliptree	Liriodendron tulipifera	58	Fair	1	10	35	Root size ~3 in dbh	One Sided, Trunk Decay, Mechanical Damage, Insect/Disease Problem, Girdling Roots	No	VDOT	VDOT	VDOT	VDOT
241	32	tuliptree	Liriodendron tulipifera	70	Good	1	14	48		One Sided, Large DW (3"+), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
242	6,3	beech, American	Fagus grandifolia	50	Fair	2	4	10		One Sided, Basal Decay, Branch Decay, Broken Limbs, Suppressed, Stressed, Vines, Serious Decline	No	VDOT	VDOT	VDOT	VDOT
243	26	tuliptree	Liriodendron tulipifera	59	Fair	1	12	39		Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
244	30	tuliptree	Liriodendron tulipifera	50	Fair	1	14	45		Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Stressed, Vines, Serious Decline, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
245	22	tuliptree	Liriodendron tulipifera	53	Fair	1	10	33	Root ~2 in dbh	Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Stressed, Vines, Serious Decline, Insect/Disease Problem, Girdling Roots	No	VDOT	VDOT	VDOT	VDOT
246	8	ash, spp.	Fraxinus spp.	0	Dead	1	4	12		Vines	No	VDOT	VDOT	VDOT	VDOT
247	25,29	tuliptree	Liriodendron tulipifera	70	Good	2	24	57		Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Co-Dominant Stems, Stressed, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
248	15	tuliptree	Liriodendron tulipifera	53	Fair	1	7	23	Many suckers on trunk	Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs, Insect/Disease Problem	No	VDOT	VDOT	VDOT	VDOT
249	21	tuliptree	Liriodendron tulipifera	69	Fair	1	9	32		Narrow Crown, Basal Decay	No	VDOT	VDOT	VDOT	VDOT
250	12	ZZ Unknown dead tree	ZZ Unknown dead tree	0	Dead	1	5	18			Yes				
251	30,8	tuliptree	Liriodendron tulipifera	69	Fair	2	17	47	DBH 8 in = dead	Large DW (3"+), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems	Yes				
252	21	beech, American	Fagus grandifolia	70	Good	1	9	32		Full Crown, Branch Decay, Broken Limbs	Yes				
253	18	beech, American	Fagus grandifolia	63	Fair	1	8	27	Roots interfering with Tree 256	Large DW (3"+), Branch Decay, Broken Limbs, Suppressed, Stressed	Yes				
254	12	cherry, sweet	Prunus avium	70	Good	1	5	18	Sig lean down slope; tree on slope	Vines, Mechanical Damage	Yes				
255	22	tuliptree	Liriodendron tulipifera	72	Good	1	10	33	Roots (2) ~ 2in dbh	Large DW (3"+), Broken Limbs, Insect/Disease Problem, Girdling Roots	Yes				
256	36	tuliptree	Liriodendron tulipifera	72	Good	1	16	54		One Sided, Large DW (3"+), Insect/Disease Problem	Yes				
257	30	tuliptree	Liriodendron tulipifera	70	Good	1	14	45	Root ~2"dbh	Narrow Crown, Large DW (3"+), Broken Limbs, Insect/Disease Problem, Girdling Roots	Yes				
258	12	beech, American	Fagus grandifolia	69	Fair	1	5	18	Trunk growth over branch	Included Bark/Weak Union, Mechanical Damage	Yes				
259	9	cherry, black	Prunus serotina	72	Good	1	4	14	Located on hill slope	One Sided, Excessive Lean	Yes				
260	13	cherry, black	Prunus serotina	69	Fair	1	6	20	Located on hill slope	One Sided, Branch Decay, Mechanical Damage, Excessive Lean	Yes				
261	10	cherry, black	Prunus serotina	70	Good	1	5	15	Located on hill slope	One Sided, Mechanical Damage, Excessive Lean	Yes				
262	14	beech, American	Fagus grandifolia	69	Fair	1	6	21	Roots close to Tree 263	Broken Limbs, Suppressed	Yes				
263	36	tuliptree	Liriodendron tulipifera	75	Good	1	16	54		Large DW (3"+)	Yes				
264	14	tuliptree	Liriodendron tulipifera	63	Fair	1	6	21		Large DW (3"+), Basal Decay, Stressed, Serious Decline	Yes				
265	8	beech, American	Fagus grandifolia	72	Good	1	4	12			Yes				
266	18,3	beech, American	Fagus grandifolia	69	Fair	2	9	27		Included Bark/Weak Union, Co-Dominant Stems, Suppressed	Yes				

Tree Location Study Table

Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
267	15	cherry, sweet	Prunus avium	73	Good	1	7	23	On hill slope; leaning down slope	One Sided	Yes				
268	14	cherry, sweet	Prunus avium	67	Fair	1	6	21	On hill slope; leaning down slope	One Sided, Branch Decay, Broken Limbs, Included Bark/Weak Union, Stressed, Mechanical Damage, Excessive Lean	Yes				
269	6	cherry, sweet	Prunus avium	70	Good	1	3	9	On hill slope; leaning down slope	One Sided, Broken Limbs, Stressed	Yes				
270	16	ash, spp.	Fraxinus spp.	0	Dead	1	7	24		Vines	Yes				
271	23	tuliptree	Liriodendron tulipifera	73	Good	1	10	35		One Sided, Large DW (3"+), Vines	Yes				
272	16	tuliptree	Liriodendron tulipifera	66	Fair	1	7	24		One Sided, Large DW (3"+), Trunk Decay, Basal Decay, Broken Limbs, Mechanical Damage	Yes				
273	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			Yes				
274	10	tree of heaven	Ailanthus altissima	50	Fair	1	5	15		Trunk Decay, Branch Decay, Broken Limbs, Vines	Yes				
275	10	ash, spp.	Fraxinus spp.	0	Dead	1	5	15		Vines	Yes				
276	21	tuliptree	Liriodendron tulipifera	72	Good	1	9	32			Yes				
277	14	maple, red	Acer rubrum	59	Fair	1	6	21		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs, Stressed, Mechanical Damage, Serious Decline	Yes				
278	13	tuliptree	Liriodendron tulipifera	72	Good	1	6	20		One Sided, Branch Decay, Broken Limbs	Yes				
279	10	locust, black	Robinia pseudoacacia	0	Dead	1	5	15			Yes				
280	9	locust, black	Robinia pseudoacacia	45	Poor	1	4	14	Topped	Stressed, Vines, Serious Decline	Yes				
281	12	beech, American	Fagus grandifolia	69	Fair	1	5	18		One Sided, Included Bark/Weak Union	Yes				
282	13	maple, red	Acer rubrum	69	Fair	1	6	20		Basal Decay	Yes				
283	13	maple, red	Acer rubrum	72	Good	1	6	20			Yes				
284	13	maple, red	Acer rubrum	67	Fair	1	6	20		One Sided, Branch Decay	Yes				
285	9	maple, red	Acer rubrum	69	Fair	1	4	14		One Sided, Trunk Decay, Branch Decay, Mechanical Damage	Yes				
286	11	maple, red	Acer rubrum	73	Good	1	5	17		One Sided	Yes				
287	11,11	maple, red	Acer rubrum	69	Fair	2	10	23	Root 2 in dbh	One Sided, Small DW (1-2"), Co-Dominant Stems, Girdling Roots	Yes				
288	8	maple, red	Acer rubrum	69	Fair	1	4	12		One Sided, Broken Limbs	Yes				
290	6,11	maple, red	Acer rubrum	67	Fair	2	8	19	Root ~3 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Vines, Mechanical Damage, Girdling Roots	Yes				
291	8	maple, red	Acer rubrum	59	Fair	1	4	12	Root ~ 1 in dbh	Large DW (3"+), Small DW (1-2"), Broken Limbs, Mechanical Damage, Girdling Roots	Yes				
292	12	maple, red	Acer rubrum	73	Good	1	5	18		One Sided	Yes				
293	12	maple, red	Acer rubrum	67	Fair	1	5	18		One Sided, Large DW (3"+), Branch Decay, Broken Limbs, Mechanical Damage	Yes				
294	9,11	maple, red	Acer rubrum	63	Fair	2	9	21		One Sided, Basal Decay, Co-Dominant Stems, Stressed, Vines, Mechanical Damage	Yes				
295	10	locust, black	Robinia pseudoacacia	55	Fair	1	5	15		Large DW (3"+), Small DW (1-2")	Yes				
296	6	maple, red	Acer rubrum	0	Dead	1	3	9			Yes				
297	8,8	maple, red	Acer rubrum	66	Fair	2	7	17		One Sided, Suppressed, Vines	Yes				
298	8	cherry, sweet	Prunus avium	58	Fair	1	4	12		Suppressed, Stressed, Vines	Yes				
299	9	cherry, sweet	Prunus avium	58	Fair	1	4	14	Topped	Branch Decay, Broken Limbs, Suppressed, Stressed, Vines	Yes				
301	24	oak, white	Quercus alba	75	Good	1	11	36		Full Crown, Small DW (1-2"), Branch Decay	Yes				

Tree Location Study Table

Tree #	DBH <small>(Diameter at 4.5 feet above grade)</small>	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
							Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
302	8	beech, American	Fagus grandifolia	75	Good	1	4	12		Full Crown, Suppressed	Yes				
303	7,9,3,4	maple, red	Acer rubrum	63	Fair	4	10	19	3" & 4" stems are dead.	One Sided, Trunk Decay, Basal Decay, Co-Dominant Stems, Suppressed	Yes				
304	23	oak, white	Quercus alba	75	Good	1	10	35	2" GR	One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Co-Dominant Stems, Suppressed, Girdling Roots	Yes				
305	18	maple, red	Acer rubrum	75	Good	1	8	27	1", 4" GR	One Sided, Small DW (1-2"), Co-Dominant Stems, Suppressed, Girdling Roots	Yes				
306	14,10	maple, red	Acer rubrum	75	Good	2	11	26		Narrow Crown, Co-Dominant Stems, Suppressed	Yes				
307	26	oak, white	Quercus alba	88	Good	1	12	39		Full Crown, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Suppressed	Yes				
308	6	beech, American	Fagus grandifolia	72	Good	1	3	9		Full Crown, Suppressed, Mechanical Damage	Yes				
309	6	blackgum	Nyssa sylvatica	73	Good	1	3	9		Narrow Crown, Suppressed	Yes				
310	10	maple, red	Acer rubrum	75	Good	1	5	15	2" GR	One Sided, Girdling Roots	Yes				
311	13	cherry, black	Prunus serotina	50	Fair	1	6	20		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Co-Dominant Stems, Suppressed, Stressed	Yes				
312	12	maple, red	Acer rubrum	75	Good	1	5	18		Small DW (1-2"), Suppressed	Yes				
313	6	hickory, mockernut	Carya tomentosa	75	Good	1	3	9	2" GR	One Sided, Suppressed, Girdling Roots	Yes				
314	19	oak, white	Quercus alba	75	Good	1	9	29		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes				
315	6	hickory, mockernut	Carya tomentosa	75	Good	1	3	9		Narrow Crown	Yes				
316	13	tuliptree	Liriodendron tulipifera	75	Good	1	6	20		One Sided	Yes				
317	11	tuliptree	Liriodendron tulipifera	75	Good	1	5	17		One Sided	Yes				
318	12	tuliptree	Liriodendron tulipifera	75	Good	1	5	18		One Sided	Yes				
319	12	cherry, black	Prunus serotina	70	Good	1	5	18		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Root Zone	Root Zone	Root Zone	Root Zone
320	8	ZZ Unknown dead tree	ZZ Unknown dead tree	0	Dead	1	4	12			Yes				
321	6	locust, black	Robinia pseudoacacia	0	Dead	1	3	9			Yes	Root Zone	Root Zone	Root Zone	Root Zone
322	13	cherry, black	Prunus serotina	50	Fair	1	6	20		One Sided, Large DW (3"+), Small DW (1-2"), Suppressed, Excessive Lean	Yes	Root Zone	Root Zone	Root Zone	Root Zone
323	8	hickory, mockernut	Carya tomentosa	75	Good	1	4	12		One Sided, Suppressed	Yes	Root Zone	Root Zone	Root Zone	Root Zone
324	23	oak, chestnut	Quercus montana	75	Good	1	10	35		One Sided, Large DW (3"+), Small DW (1-2"), Suppressed	Yes	Trunk	Root Zone	Root Zone	Root Zone
325	15,9	oak, chestnut	Quercus montana	69	Fair	2	11	26		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Co-Dominant Stems, Suppressed	Yes	Trunk	Root Zone	Root Zone	Root Zone
326	14,10	maple, red	Acer rubrum	69	Fair	2	11	26		Narrow Crown, Trunk Decay, Suppressed	Yes	Trunk	Trunk	Trunk	Trunk
327	10	maple, red	Acer rubrum	69	Fair	1	5	15	1" GR	Narrow Crown, Trunk Decay, Suppressed, Girdling Roots	Yes	Trunk	Trunk	Trunk	Trunk
328	8	maple, red	Acer rubrum	69	Fair	1	4	12		Narrow Crown, Trunk Decay, Suppressed	Yes	Trunk	Root Zone	Root Zone	Root Zone
329	11	oak, chestnut	Quercus montana	70	Good	1	5	17		Narrow Crown, Large DW (3"+), Branch Decay, Broken Limbs	Yes	Trunk	Root Zone	Root Zone	Root Zone
330	18	maple, red	Acer rubrum	73	Good	1	8	27		One Sided, Large DW (3"+)	Yes	Trunk	Root Zone	Root Zone	Root Zone
331	6	maple, red	Acer rubrum	63	Fair	1	3	9		Narrow Crown, Root Damage/Decay, Basal Decay, Suppressed, Mechanical Damage	Yes	Trunk	Root Zone	Root Zone	Trunk
332	16	ash, white	Fraxinus americana	0	Dead	1	7	24			Yes	Trunk	Root Zone	Root Zone	Trunk
333	10	maple, red	Acer rubrum	66	Fair	1	5	15		Narrow Crown, Trunk Decay, Suppressed, Mechanical Damage	Yes	Trunk	Root Zone	Root Zone	Root Zone
334	12	maple, red	Acer rubrum	56	Fair	1	5	18		Narrow Crown, Trunk Decay, Basal Decay, Suppressed, Mechanical Damage	Yes	Trunk	Trunk	Trunk	Trunk

Tree Location Study Table

Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
335	16	hickory, mockernut	Carya tomentosa	72	Good	1	7	24		Full Crown, Large DW (3"+), Trunk Decay	Yes	Trunk	Root Zone	Root Zone	Trunk
336	19	hickory, mockernut	Carya tomentosa	72	Good	1	9	29		Full Crown, Trunk Decay	Yes	Trunk	Trunk	Trunk	Trunk
337	10	hickory, mockernut	Carya tomentosa	67	Fair	1	5	15		Full Crown, Small DW (1-2"), Trunk Decay, Broken Limbs, Mechanical Damage	Yes	Trunk	Root Zone	Root Zone	Root Zone
338	20	maple, red	Acer rubrum	81	Good	1	9	30		One Sided	Yes	Trunk	Root Zone	Root Zone	Root Zone
339	10	locust, black	Robinia pseudoacacia	50	Fair	1	5	15		Narrow Crown, Large DW (3"+), Small DW (1-2"), Root Damage/Decay, Branch Decay, Suppressed	Yes				
340	11	maple, red	Acer rubrum	44	Poor	1	5	17		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Stressed, Mechanical Damage	Yes				
341	13	maple, red	Acer rubrum	75	Good	1	6	20		One Sided, Broken Limbs	Yes				
342	9,5	maple, red	Acer rubrum	50	Fair	2	6	15	5" stem is dead.	One Sided, Large DW (3"+), Small DW (1-2"), Basal Decay, Branch Decay, Co-Dominant Stems, Suppressed	Yes				
343	6	maple, red	Acer rubrum	75	Good	1	3	9	5" stem is dead.	Full Crown, Co-Dominant Stems	Yes				
344	6	maple, red	Acer rubrum	72	Good	1	3	9		Narrow Crown, Mechanical Damage	Yes	Root Zone	Root Zone	Root Zone	Root Zone
345	6	maple, red	Acer rubrum	72	Good	1	3	9		Narrow Crown, Mechanical Damage	Yes				
346	11	cherry, black	Prunus serotina	50	Fair	1	5	17		One Sided, Branch Decay, Broken Limbs	Yes				
347	6	cherry, black	Prunus serotina	50	Fair	1	3	9		Narrow Crown, Small DW (1-2"), Branch Decay	Yes				
348	7	maple, red	Acer rubrum	67	Fair	1	3	11		Narrow Crown, Co-Dominant Stems, Suppressed	Yes	Root Zone	Root Zone	Root Zone	Root Zone
349	42	oak, black	Quercus velutina	63	Fair	1	19	63		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone			
350	17	oak, white	Quercus alba	66	Fair	1	8	26		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Trunk	Root Zone	Root Zone	Root Zone
351	23	oak, black	Quercus velutina	0	Dead	1	10	35			Yes	Trunk	Root Zone	Root Zone	Root Zone
352	9	maple, red	Acer rubrum	53	Fair	1	4	14		One Sided, Trunk Decay, Basal Decay, Suppressed, Mechanical Damage	Yes	Trunk	Root Zone	Root Zone	Root Zone
353	16	oak, chestnut	Quercus montana	66	Fair	1	7	24		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes				
354	20	oak, white	Quercus alba	0	Dead	1	9	30			Yes				
355	26	oak, white	Quercus alba	0	Dead	1	12	39			Yes				
356	39	oak, black	Quercus velutina	70	Good	1	18	59		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Mechanical Damage	Yes				
357	7	hickory, mockernut	Carya tomentosa	75	Good	1	3	11		Narrow Crown, Suppressed	Yes				
358	6	oak, chestnut	Quercus montana	75	Good	1	3	9		Narrow Crown, Small DW (1-2"), Suppressed	Yes	Trunk			
359	19	oak, black	Quercus velutina	75	Good	1	9	29		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Trunk			
360	6	oak, black	Quercus velutina	69	Fair	1	3	9		Narrow Crown, Suppressed	Yes	Root Zone	Root Zone	Root Zone	Root Zone
361	6,3	maple, red	Acer rubrum	50	Fair	2	4	10		Narrow Crown, Small DW (1-2"), Trunk Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Mechanical Damage	Yes	Root Zone			
362	6	cherry, sweet	Prunus avium	47	Poor	1	3	9		Narrow Crown, Trunk Decay, Suppressed, Mechanical Damage	Yes	Root Zone			
363	28	tuliptree	Liriodendron tulipifera	69	Fair	1	13	42	3" GR	One Sided, Basal Decay, Girdling Roots	Yes				
364	6	maple, red	Acer rubrum	41	Poor	1	3	9	Picnidial fungus growth visible on trunk.	Narrow Crown, Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Suppressed, Mechanical Damage, Insect/Disease Problem	Yes				

Tree Location Study Table

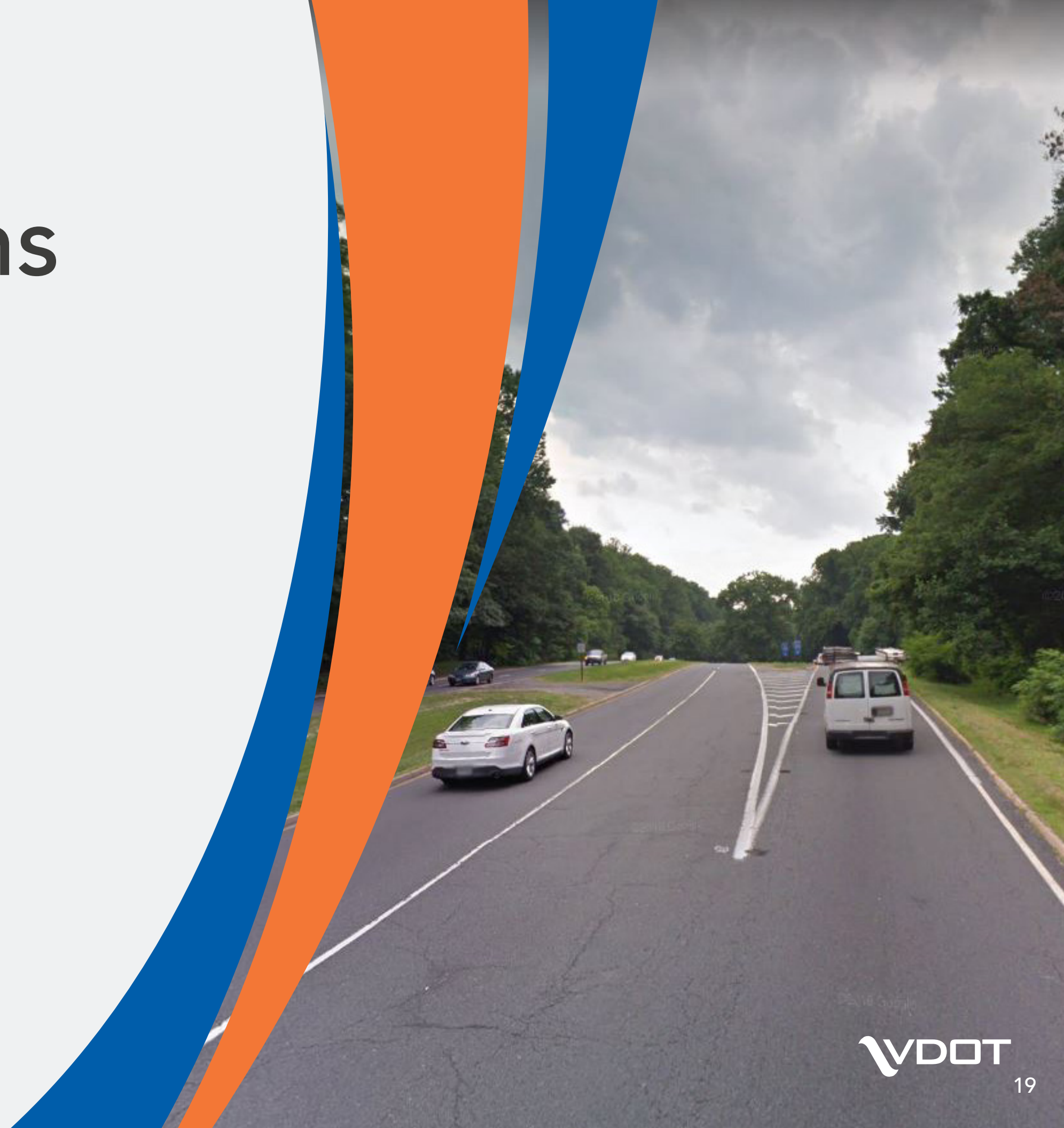
Tree #	DBH <small>(Diameter at 4.5 feet above grade)</small>	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
							Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
365	6	tuliptree	Liriodendron tulipifera	50	Fair	1	3	9		Narrow Crown, Suppressed	Yes	Root Zone			
366	33	tuliptree	Liriodendron tulipifera	72	Good	1	15	50	2",2" GR	One Sided, Large DW (3"+), Small DW (1-2"), Suppressed, Girdling Roots	Yes	Root Zone			
367	9	hickory, mockernut	Carya tomentosa	75	Good	1	4	14		Narrow Crown, Suppressed	Yes	Root Zone	Potentially Root Zone	Potentially Root Zone	Root Zone
368	24	cherry, sweet	Prunus avium	0	Dead	1	11	36			Yes				
369	19	hickory, mockernut	Carya tomentosa	75	Good	1	9	29		Full Crown	Yes				
370	13	beech, American	Fagus grandifolia	69	Fair	1	6	20		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Suppressed, Mechanical Damage	Yes				
371	19	beech, American	Fagus grandifolia	73	Good	1	9	29		Full Crown, Large DW (3"+), Broken Limbs, Suppressed	Yes				
372	8	beech, American	Fagus grandifolia	73	Good	1	4	12		Full Crown, Suppressed	Yes	Root Zone			
373	17	cherry, sweet	Prunus avium	0	Dead	1	8	26			Yes				
374	29	hickory, mockernut	Carya tomentosa	72	Good	1	13	44		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone			
375	19	beech, American	Fagus grandifolia	78	Good	1	9	29		Narrow Crown, Small DW (1-2")	Yes				
376	11	beech, American	Fagus grandifolia	75	Good	1	5	17		Narrow Crown	Yes				
377	28	tuliptree	Liriodendron tulipifera	73	Good	1	13	42		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay	Yes				
378	9	cherry, sweet	Prunus avium	75	Good	1	4	14		One Sided	Yes				
379	17	tuliptree	Liriodendron tulipifera	75	Good	1	8	26		One Sided	Yes				
380	9	maple, red	Acer rubrum	75	Good	1	4	14		One Sided	Yes				
381	8	tuliptree	Liriodendron tulipifera	75	Good	1	4	12		Suppressed	Yes				
382	7,3	maple, red	Acer rubrum	75	Good	2	5	11		Narrow Crown	Yes				
383	17	tuliptree	Liriodendron tulipifera	75	Good	1	8	26		One Sided	Yes				
384	8	maple, red	Acer rubrum	72	Good	1	4	12		One Sided, Small DW (1-2"), Basal Decay, Branch Decay, Mechanical Damage	Yes				
385	12	maple, red	Acer rubrum	75	Good	1	5	18		Narrow Crown	Yes				
386	17	tuliptree	Liriodendron tulipifera	69	Fair	1	8	26		Narrow Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes				
387	6	maple, red	Acer rubrum	50	Fair	1	3	9		One Sided	Yes				
388	7	maple, red	Acer rubrum	50	Fair	1	3	11		One Sided, Suppressed	Yes				
389	8,8	maple, red	Acer rubrum	75	Good	2	7	17		One Sided, Co-Dominant Stems, Suppressed	Yes				
390	7	maple, red	Acer rubrum	0	Dead	1	3	11			Yes				
391	7	maple, red	Acer rubrum	50	Fair	1	3	11		One Sided, Trunk Decay, Co-Dominant Stems	Yes				
392	7	maple, red	Acer rubrum	75	Good	1	3	11		One Sided, Trunk Decay, Co-Dominant Stems	Yes				
393	15	tuliptree	Liriodendron tulipifera	72	Good	1	7	23		One Sided	Yes	Root Zone			
394	13	oak, chestnut	Quercus montana	75	Good	1	6	20			Yes	Root Zone	Potentially Root Zone	Potentially Root Zone	Potentially Root Zone
395	7	maple, red	Acer rubrum	75	Good	1	3	11		Narrow Crown	Yes	Root Zone			
396	10	tuliptree	Liriodendron tulipifera	75	Good	1	5	15		Narrow Crown	Yes	Root Zone			
397	14	maple, red	Acer rubrum	72	Good	1	6	21		One Sided, Small DW (1-2"), Suppressed	Yes	Trunk	Potentially Root Zone	Potentially Root Zone	Root Zone
398	8	maple, red	Acer rubrum	70	Good	1	4	12		One Sided, Co-Dominant Stems, Suppressed	Yes	Trunk			
399	8	maple, red	Acer rubrum	73	Good	1	4	12		Narrow Crown, Suppressed	Yes	Trunk			

Tree Location Study Table

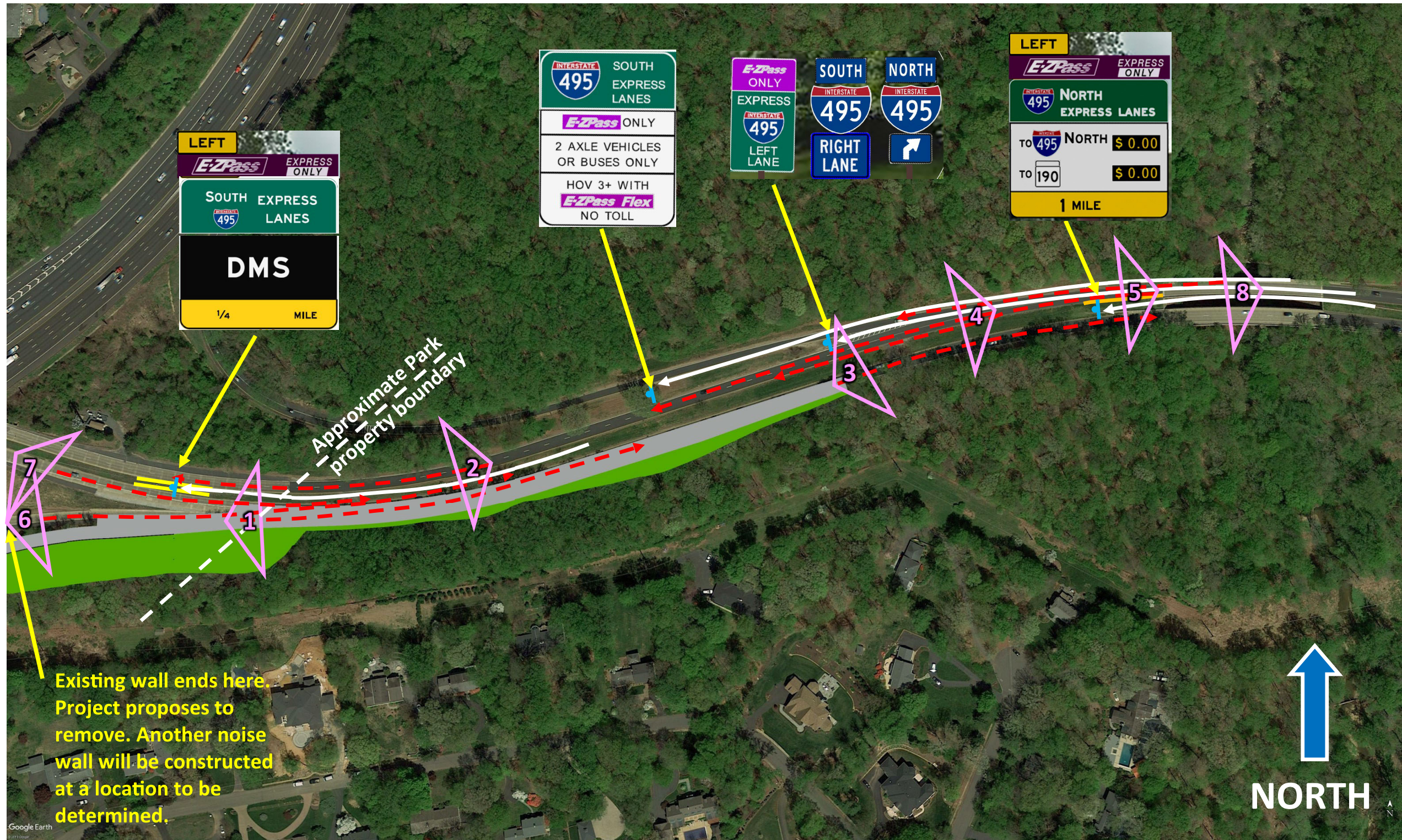
Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?	Tree Impacted by Option 2?	Tree Impacted by Option 3?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)							
400	25	tuliptree	Liriodendron tulipifera	75	Good	1	11	38		One Sided	Yes	Trunk	Potentially Root Zone	Potentially Root Zone	Potentially Root Zone
451	12,6	maple, red	Acer rubrum	50	Fair	2	8	20	DBH 6 = dead; adj Tree 340 limbs broken on tree	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs	Yes	Trunk			Potentially Root Zone
452	7	hickory, mockernut	Carya tomentosa	38	Poor	1	3	11		Stressed, Vines, Serious Decline, Excessive Lean, Unstable Root System	Yes	Trunk	Potentially Root Zone	Potentially Root Zone	Potentially Root Zone
453	19,11	locust, black	Robinia pseudoacacia	47	Poor	2	14	33	DBH 11 Topped	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Broken Limbs, Stressed, Hardware, Vines, Serious Decline	Yes	Trunk			
454	8	tuliptree	Liriodendron tulipifera	59	Fair	1	4	12	Roots 1 in dbh and less	One Sided, Suppressed, Girdling Roots	Yes	Trunk	Potentially Root Zone	Potentially Root Zone	Root Zone
455	11	maple, red	Acer rubrum	61	Fair	1	5	17	Root ~ 1 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Girdling Roots	Yes	Trunk			
456	8	cherry, black	Prunus serotina	0	Dead	1	4	12	Topped	Vines	Yes	Trunk			
466	11	pine, loblolly	Pinus taeda	0	Dead	1	5	17	Topped	Vines	Yes	Trunk			
467	23	maple, red	Acer rubrum	64	Fair	1	10	35		One Sided, Branch Decay, Broken Limbs, Vines	Yes	Trunk	Root Zone	Root Zone	Root Zone
468	15	pine, loblolly	Pinus taeda	50	Fair	1	7	23		Large DW (3"+), Small DW (1-2"), Broken Limbs, Stressed, Vines, Serious Decline	Yes	Trunk			
469	12	locust, black	Robinia pseudoacacia	38	Poor	1	5	18	Recommend removal	Large DW (3"+), Broken Limbs, Suppressed, Stressed, Vines, Serious Decline	Yes	Trunk			
470	8	cherry, black	Prunus serotina	0	Dead	1	4	12	Topped		Yes	Trunk	Root Zone	Root Zone	Root Zone
471	12	locust, black	Robinia pseudoacacia	53	Fair	1	5	18		Basal Decay, Suppressed, Stressed, Vines	Yes	Trunk	Root Zone	Root Zone	Root Zone
472	6	cherry, sweet	Prunus avium	69	Fair	1	3	9		One Sided, Broken Limbs	Yes	Trunk	Root Zone	Root Zone	Root Zone

Visualizations

- a. Viewpoint 1
 - Option 1
 - Option 2
 - Option 3
 - Option 4
- b. Viewpoint 6
 - Option 1
 - Option 2
 - Option 3
 - Option 4
- c. Viewpoint 7
 - Option 1
 - Option 2
 - Option 3
 - Option 4
- d. Viewpoint 2
- e. Viewpoint 3
- f. Viewpoint 4
- g. Viewpoint 5
- h. Viewpoint 8



Option 1—No Retaining Wall



Proposed Cut Slope
 Proposed Pavement

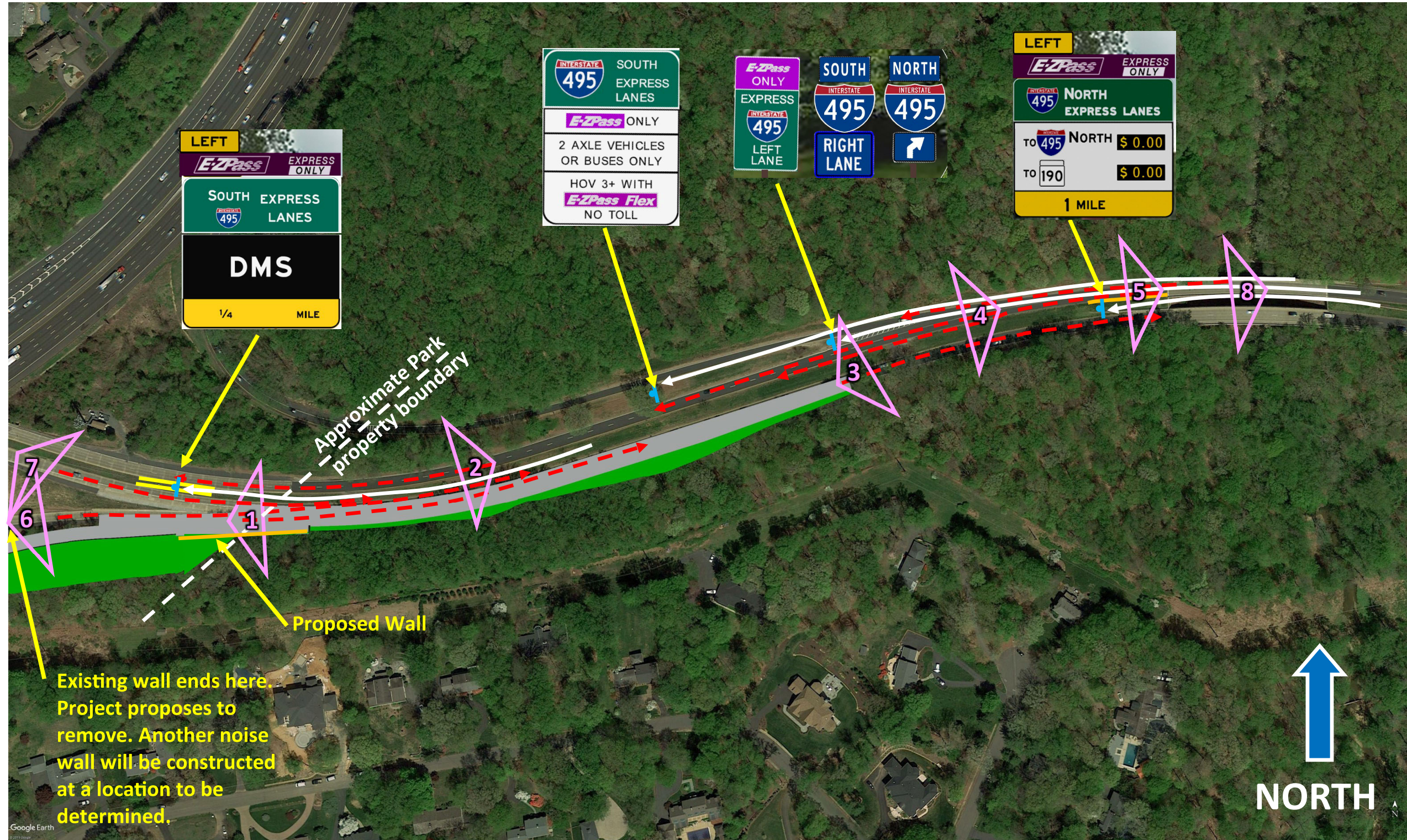
Proposed Stone Wall
 Proposed Guardrail

Proposed Sign
 Estimated viewpoint
 Estimated Sign Viewshed

Existing wall ends here. Project proposes to remove. Another noise wall will be constructed at a location to be determined.

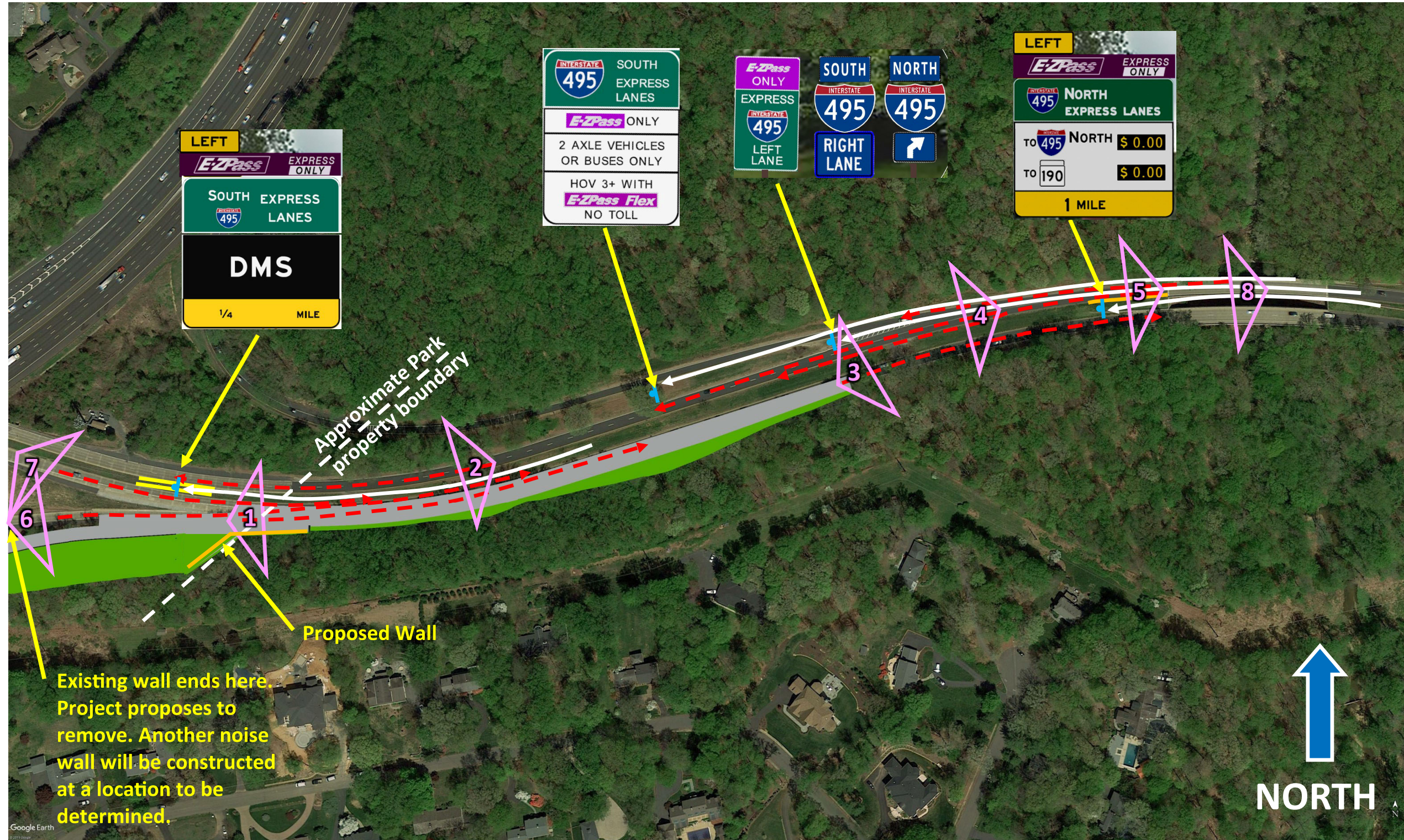
↑
 NORTH

Option 2—Retaining Wall



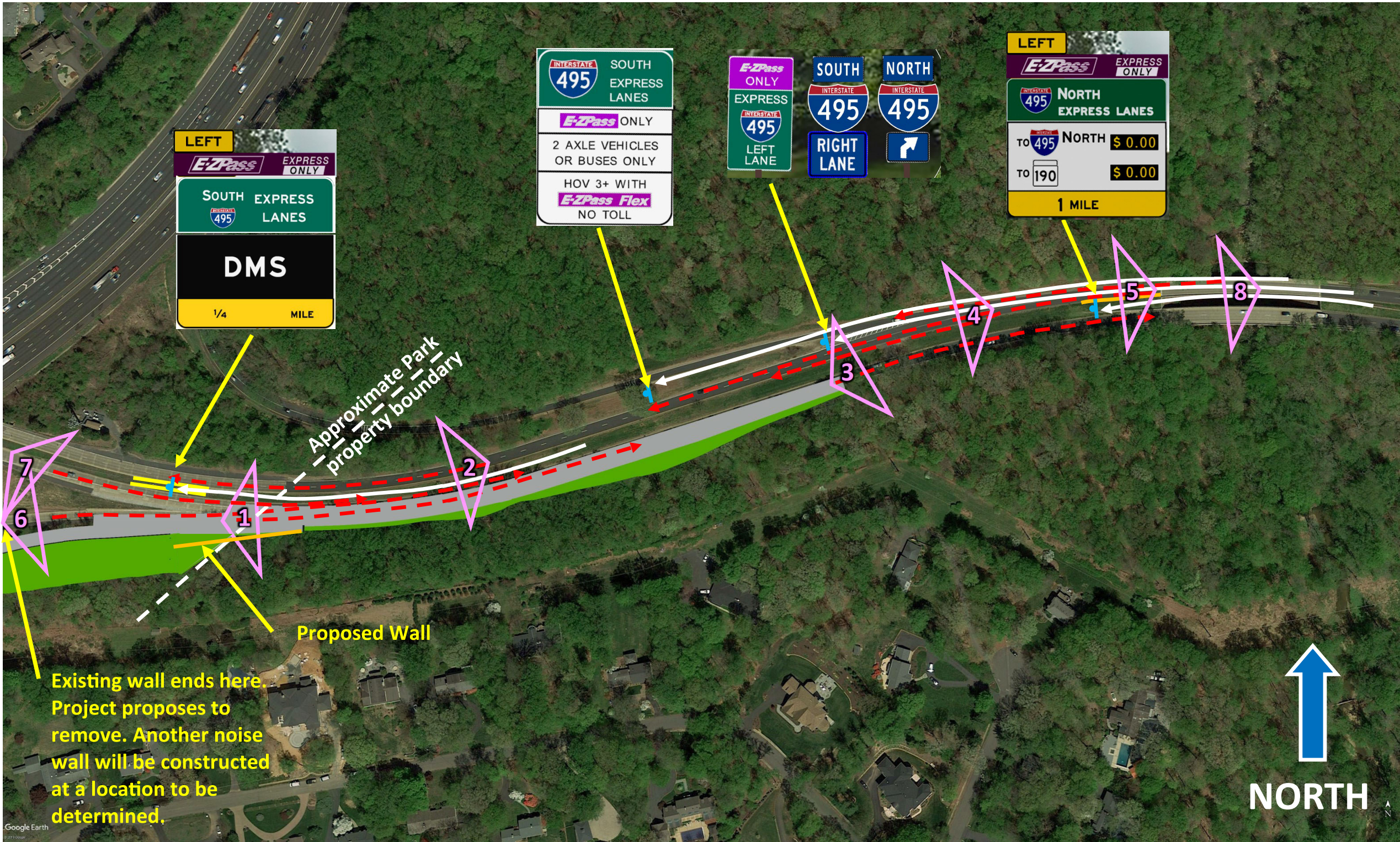
- Proposed Cut Slope
- Proposed Pavement
- Proposed Stone Wall
- Proposed Guardrail
- Proposed Sign
- Estimated viewpoint
- Estimated Sign Viewshed

Option 3—Angle Wall



- Proposed Cut Slope
- Proposed Pavement
- Proposed Stone Wall
- Proposed Guardrail
- Proposed Sign
- Estimated viewpoint
- Estimated Sign Viewshed

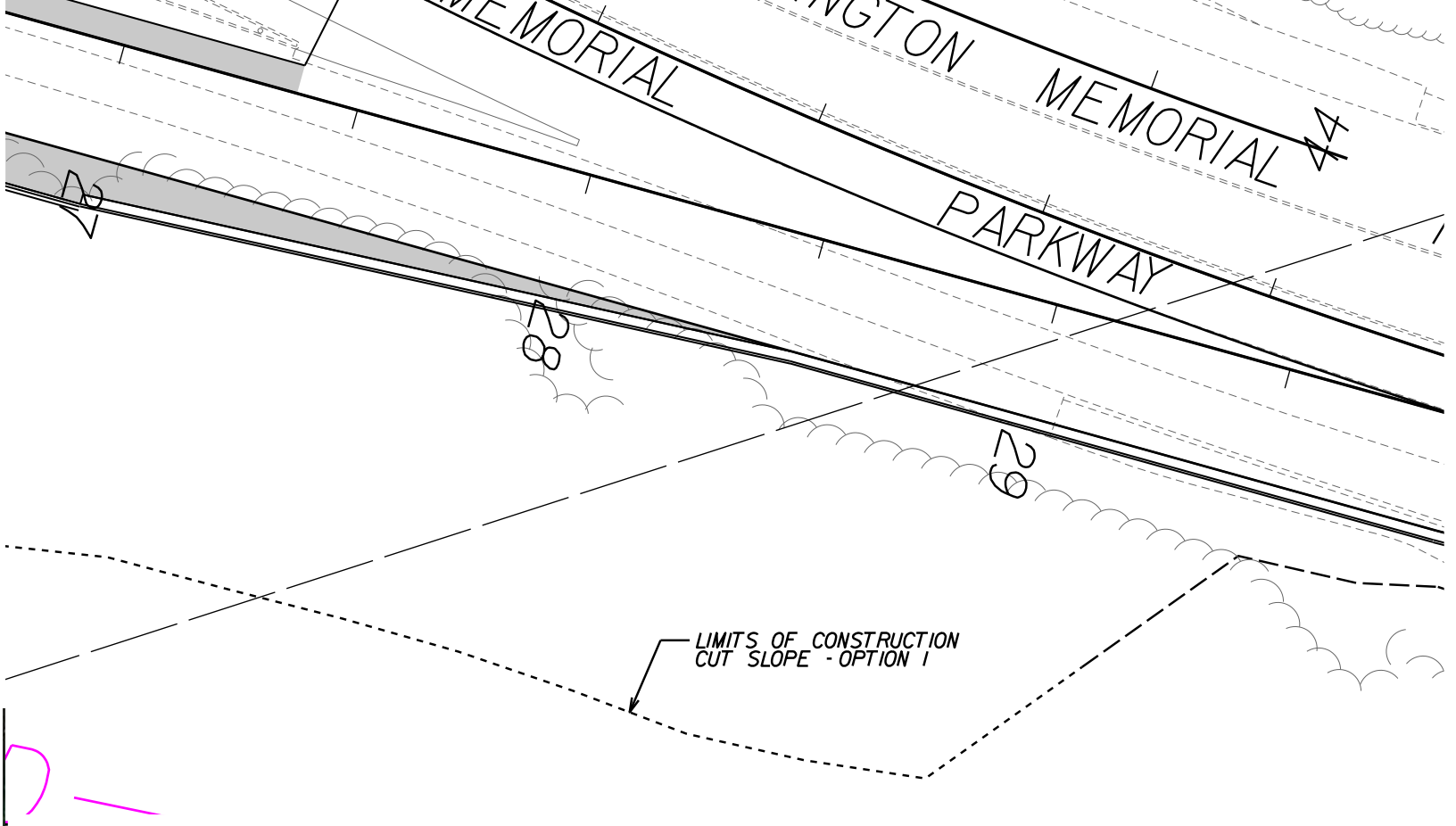
Option 4— Hybrid Angle Wall



- Proposed Cut Slope
- Proposed Pavement
- Proposed Stone Wall
- Proposed Guardrail
- Proposed Sign
- Estimated viewpoint
- Estimated Sign Viewshed

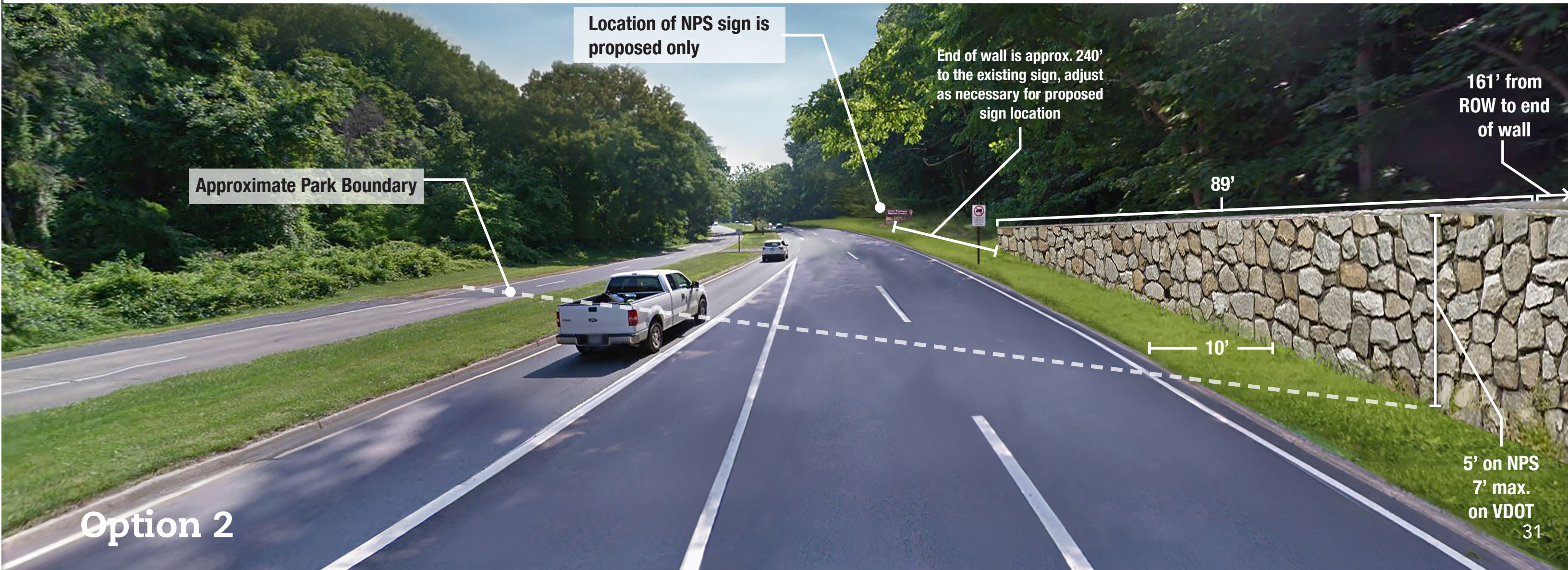
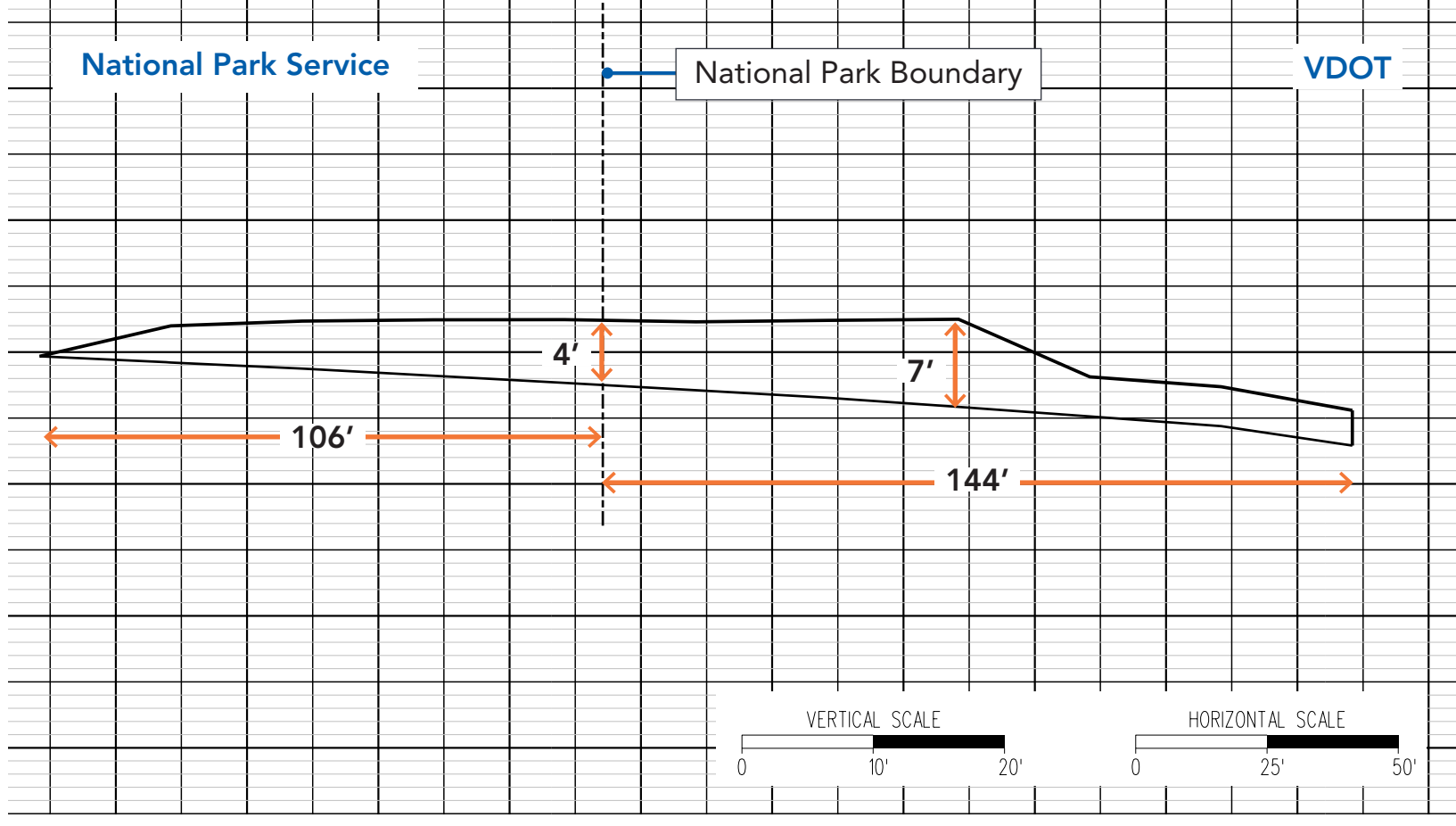
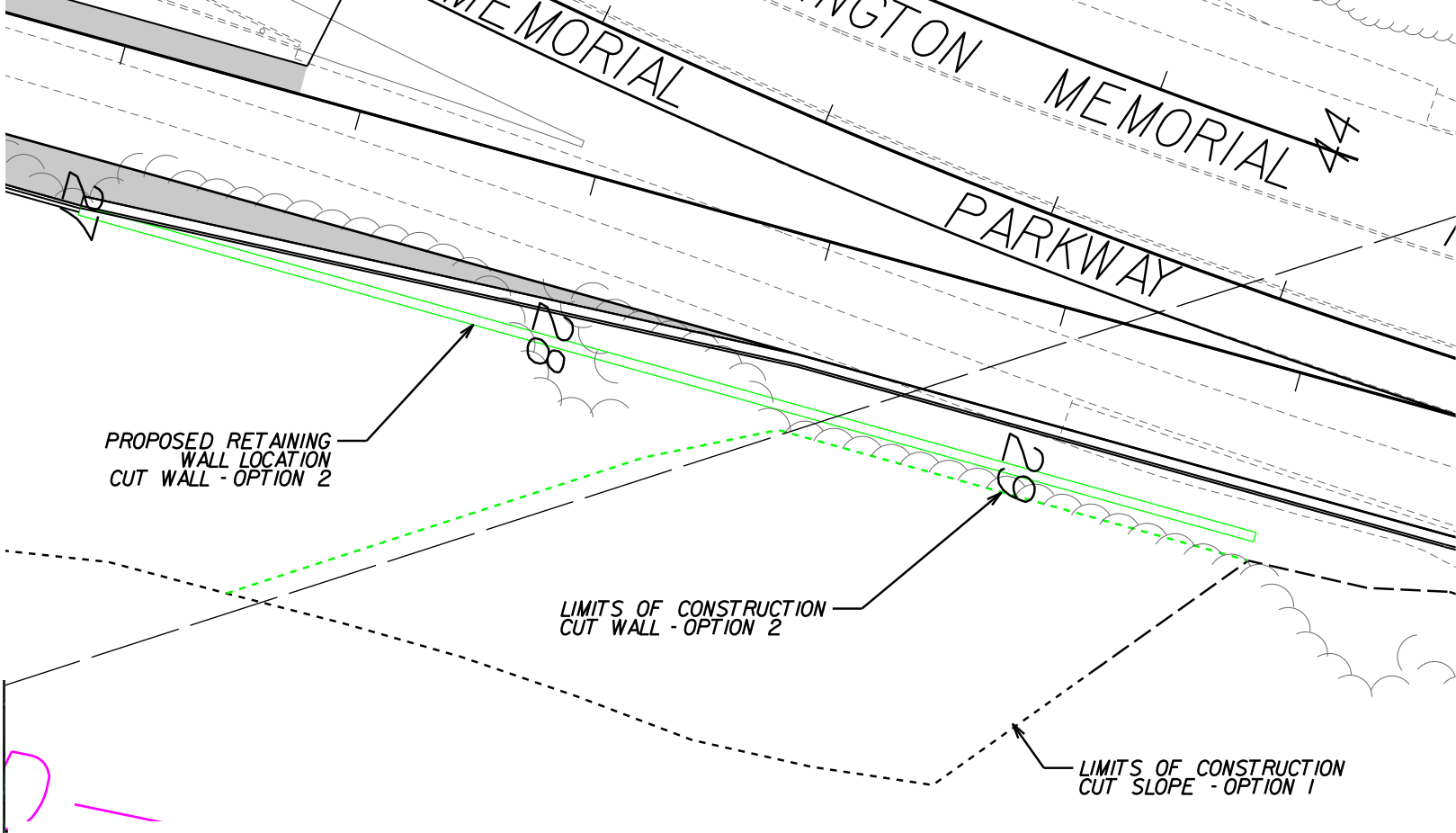
VIEWPOINT 1 Eastbound GWMP looking towards Park entrance





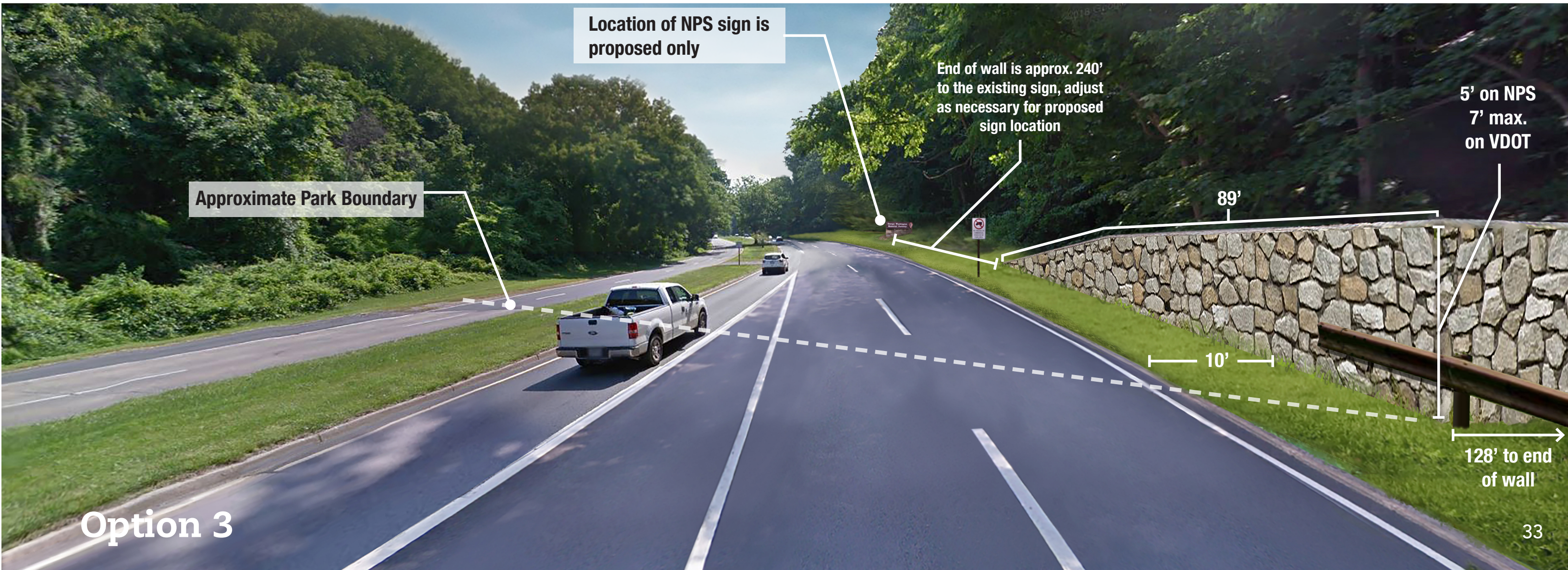
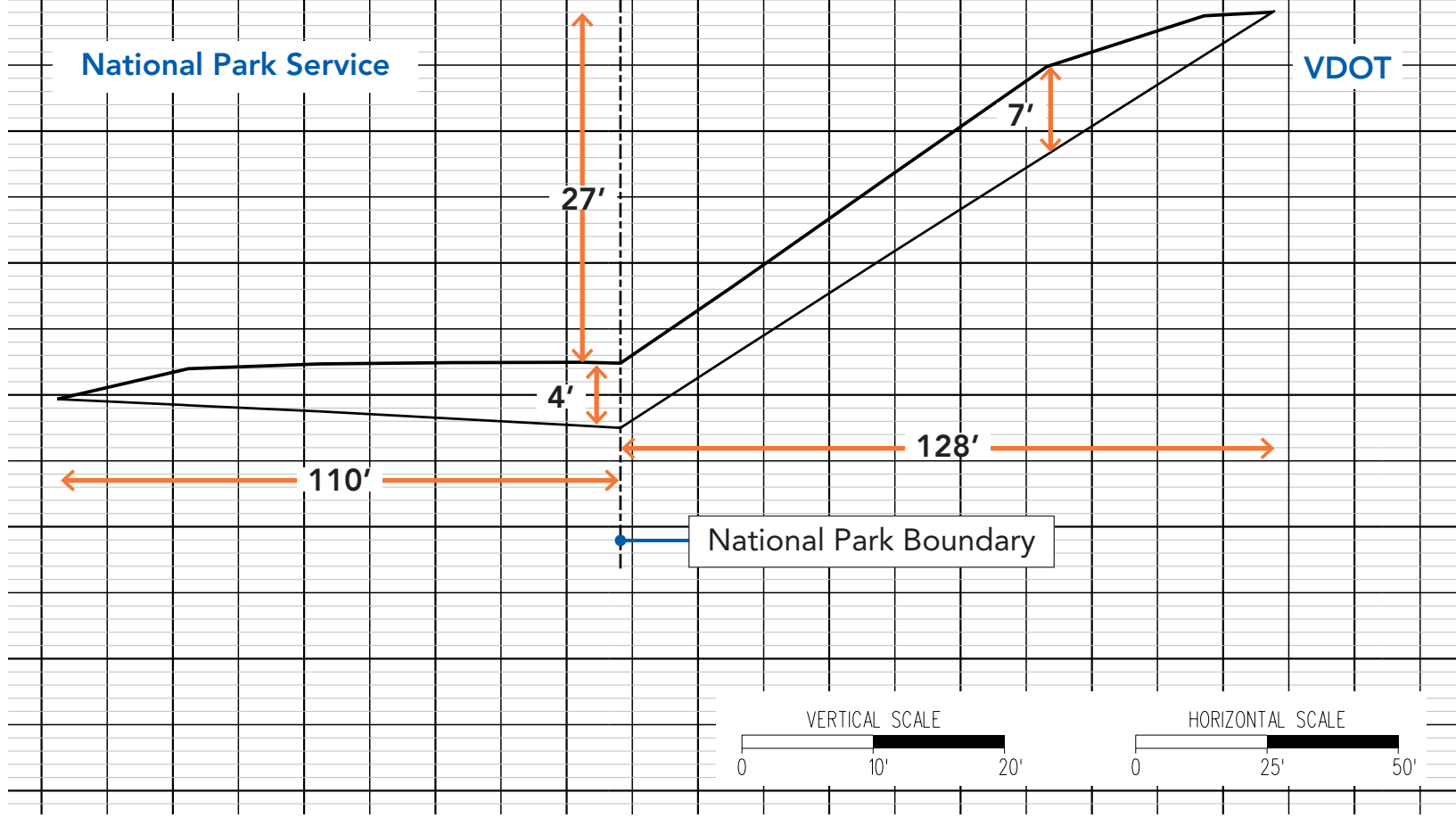
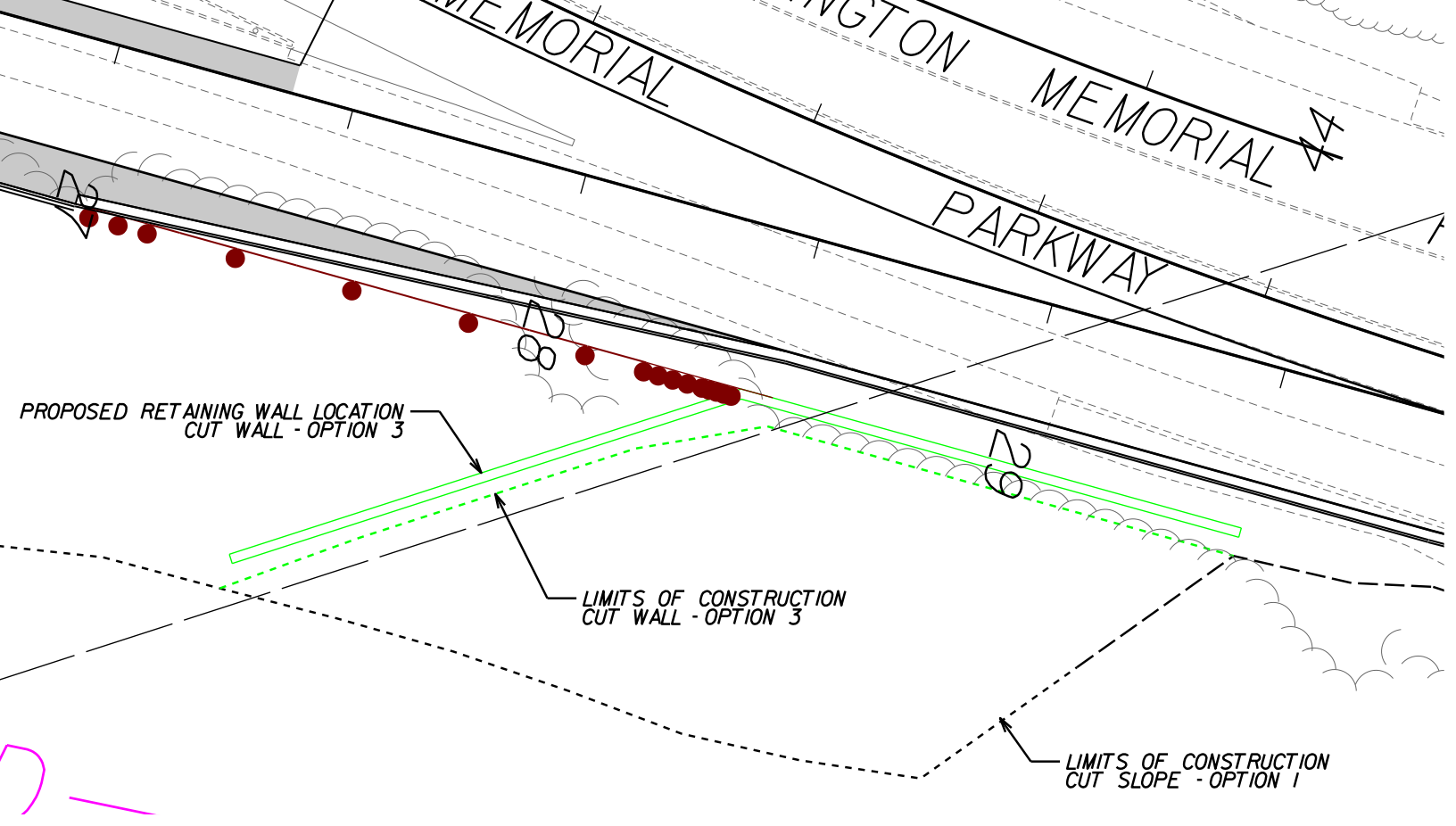
VIEWPOINT 1 Eastbound GWMP looking towards Park entrance





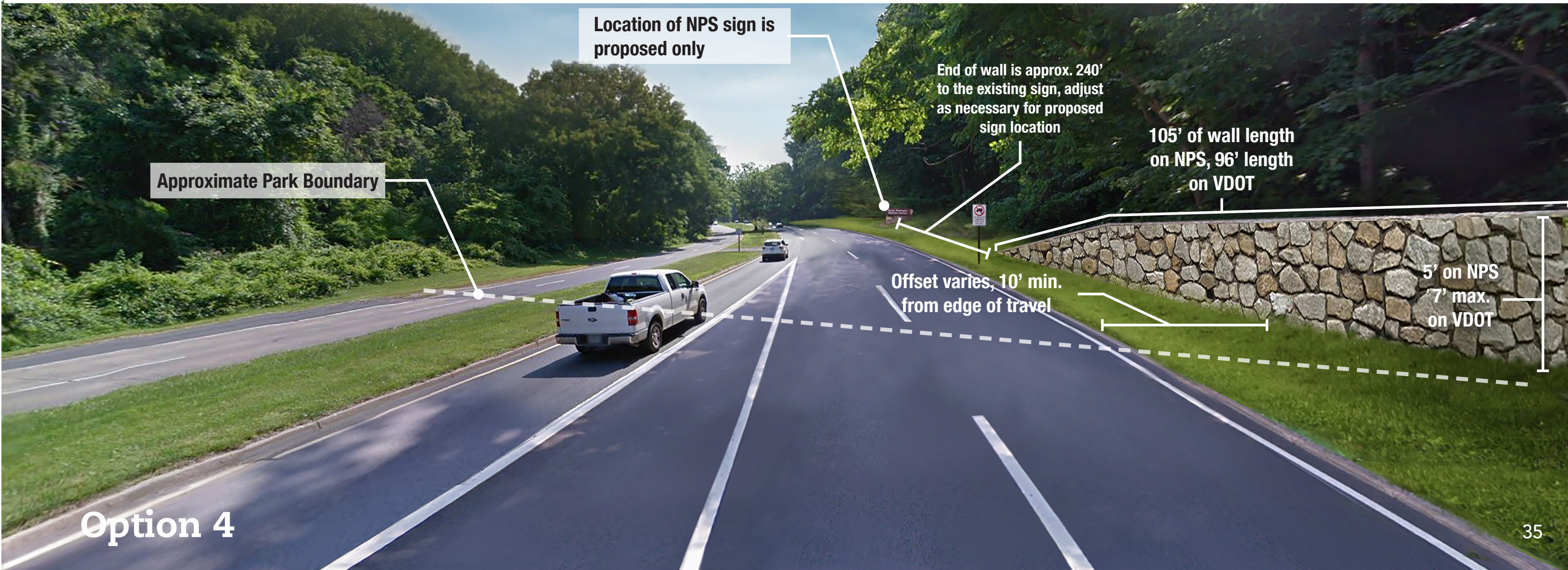
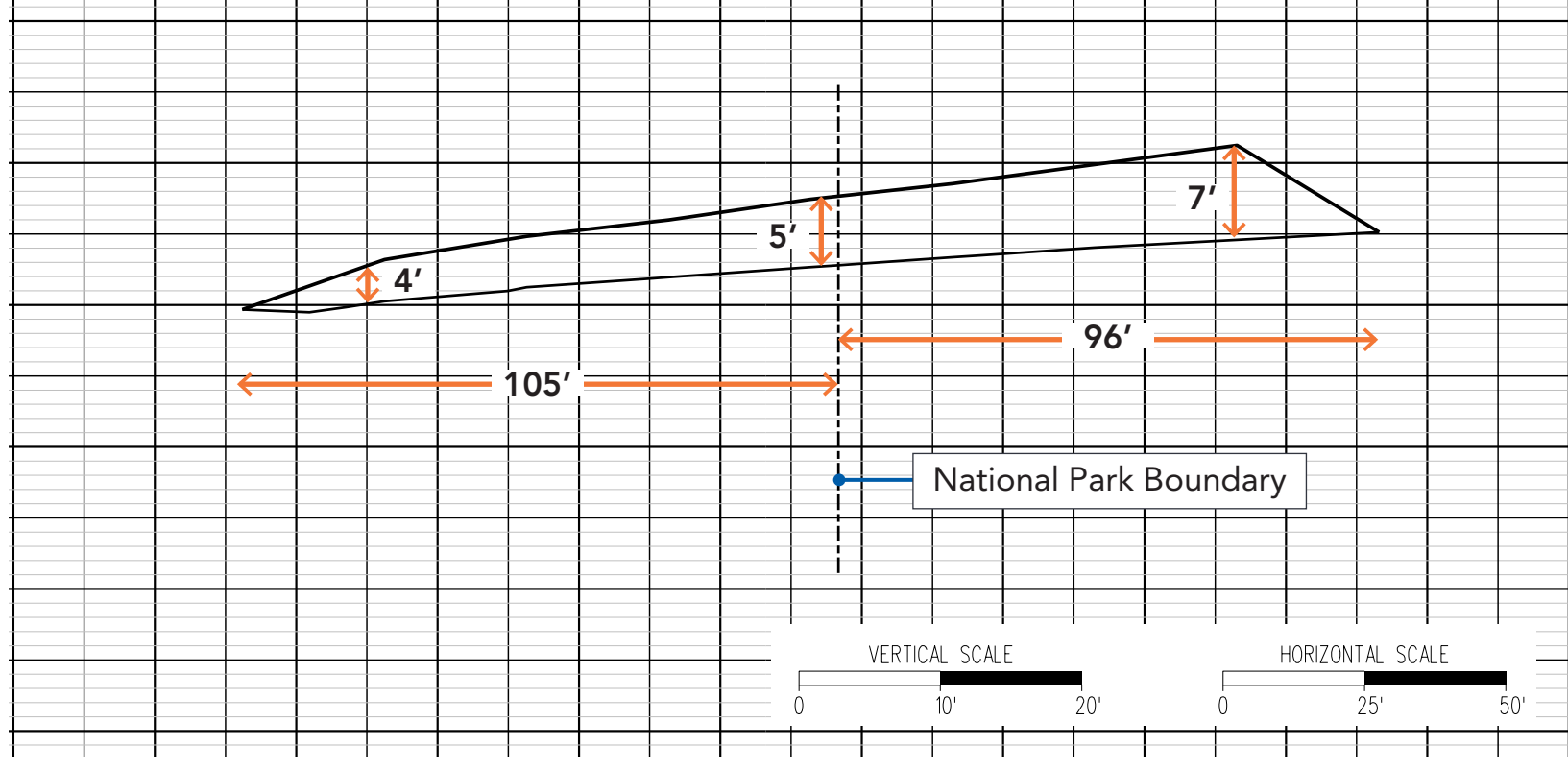
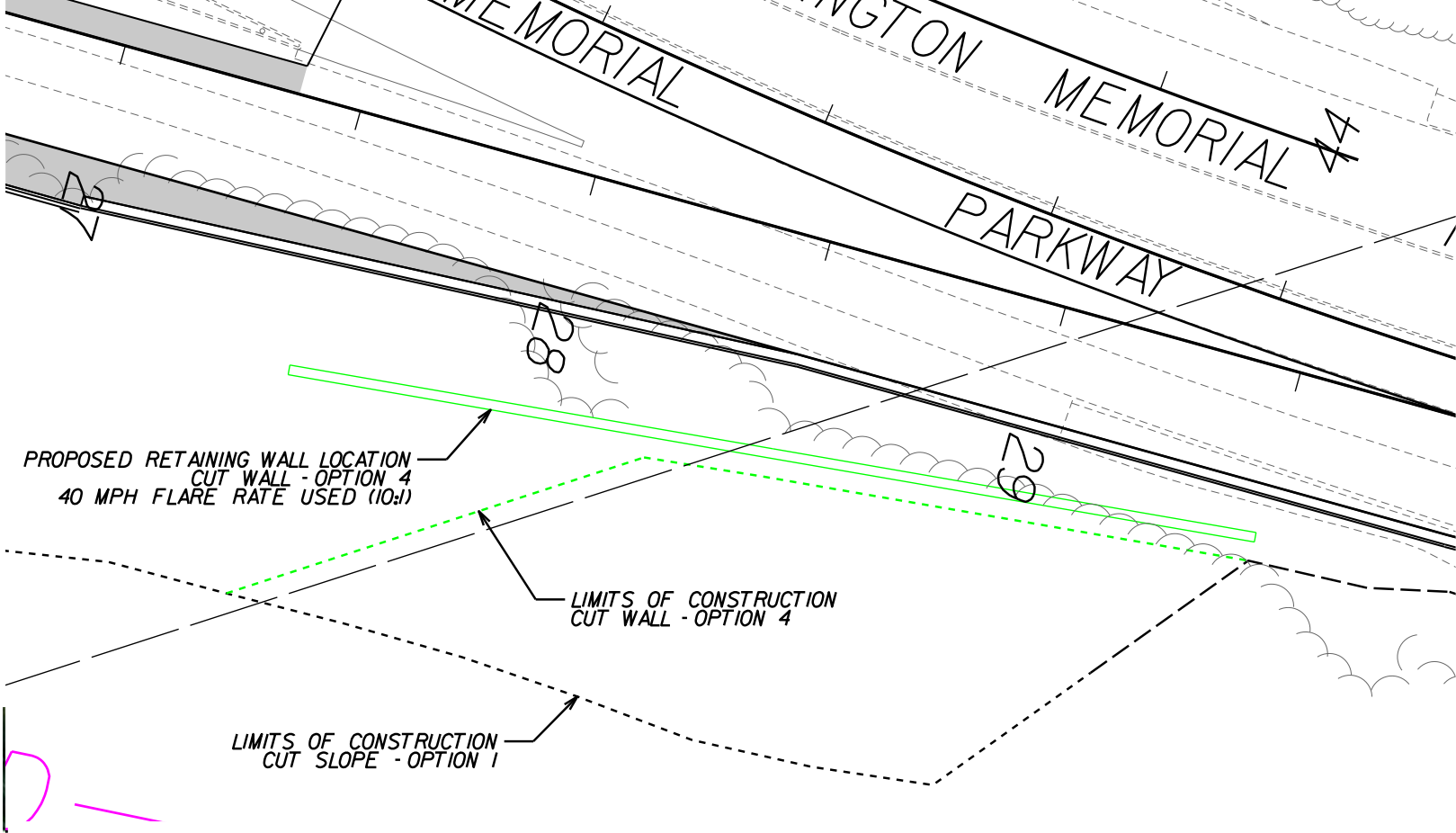
VIEWPOINT 1 Eastbound GWMP looking towards Park entrance





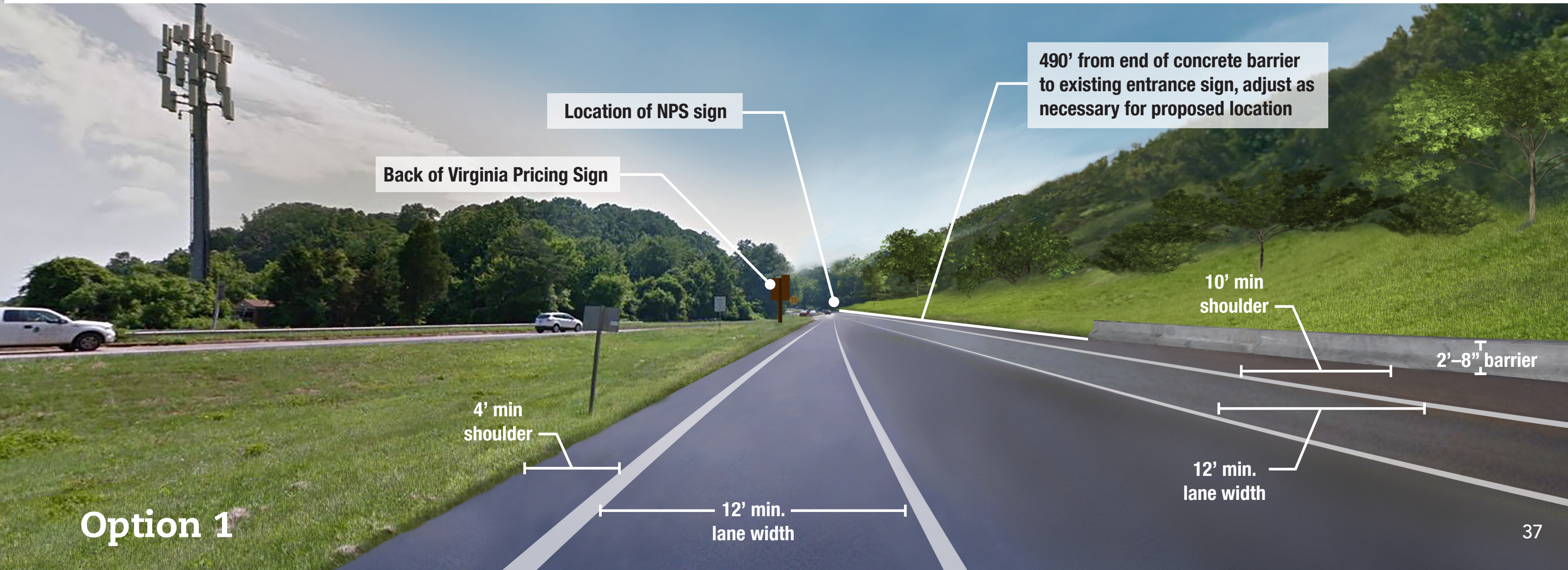
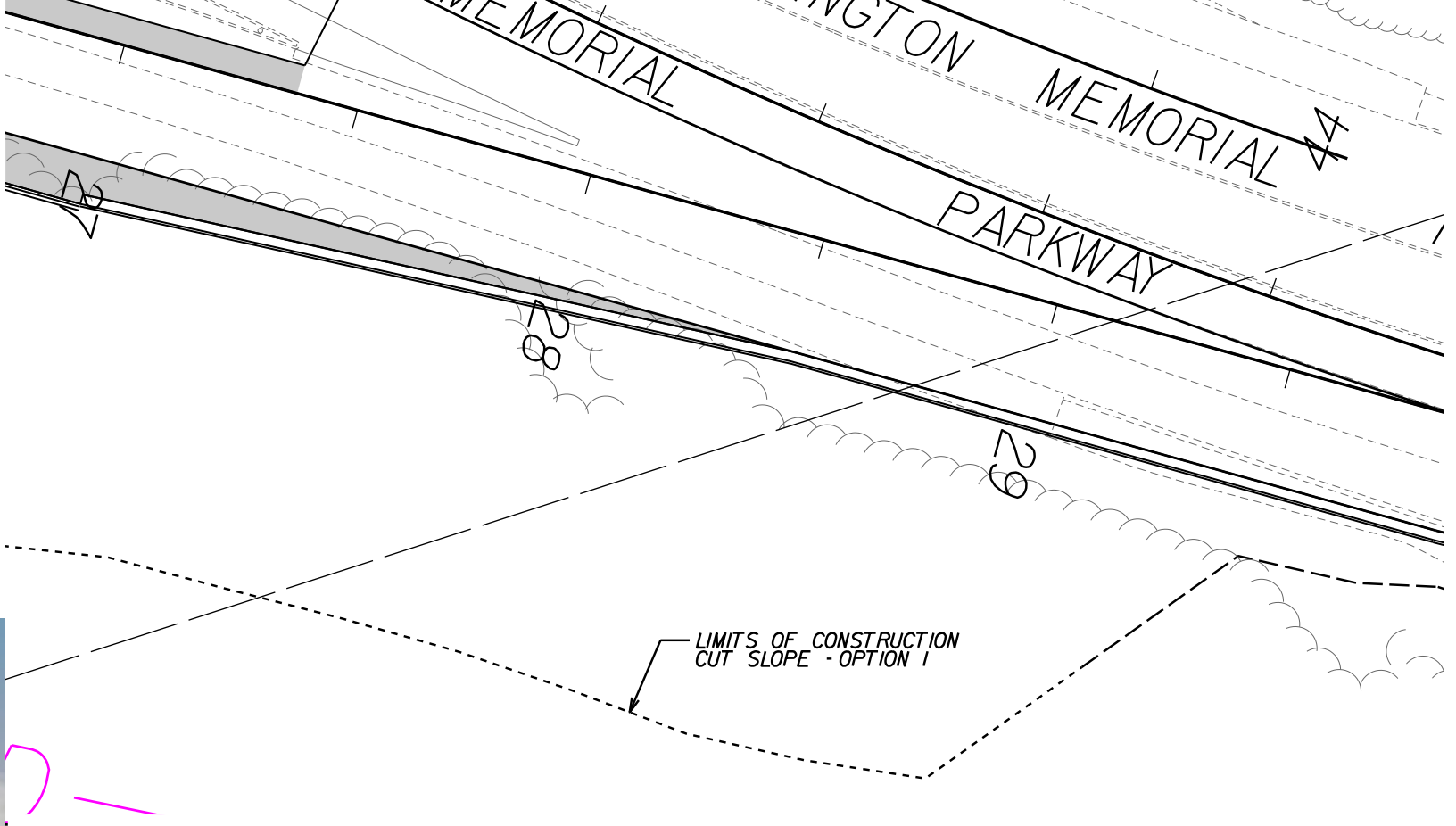
VIEWPOINT 1 Eastbound GWMP looking towards Park entrance





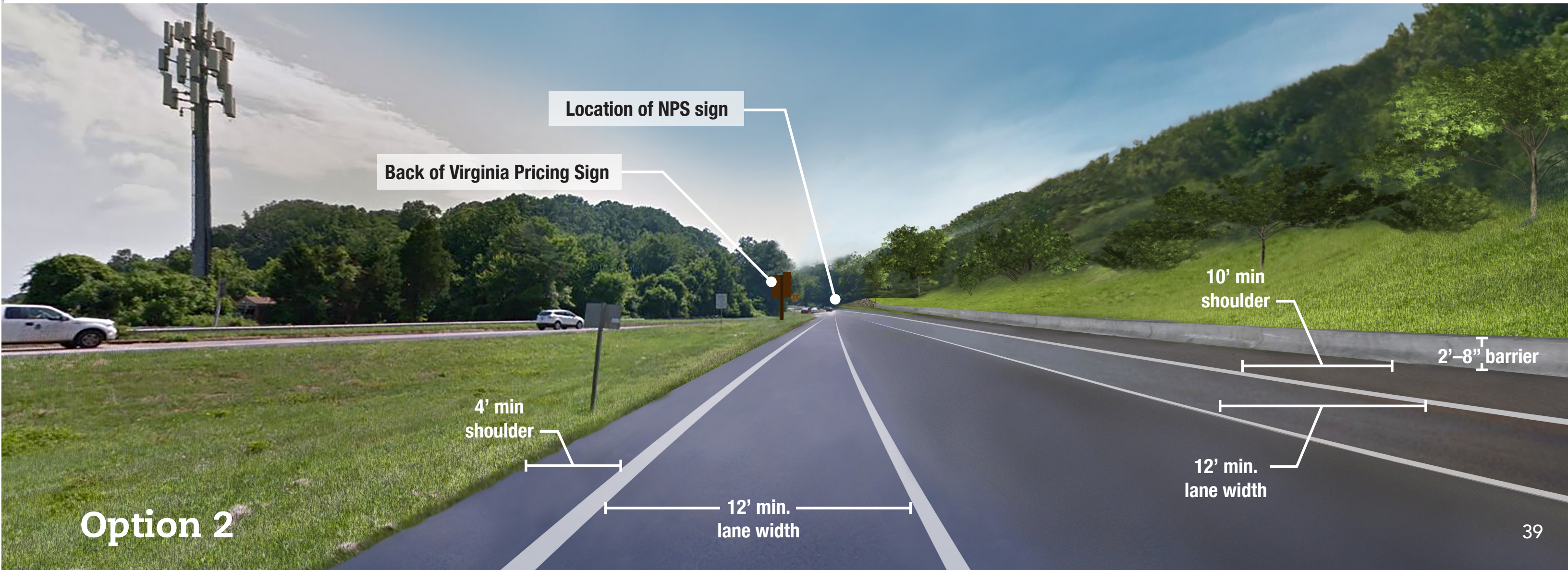
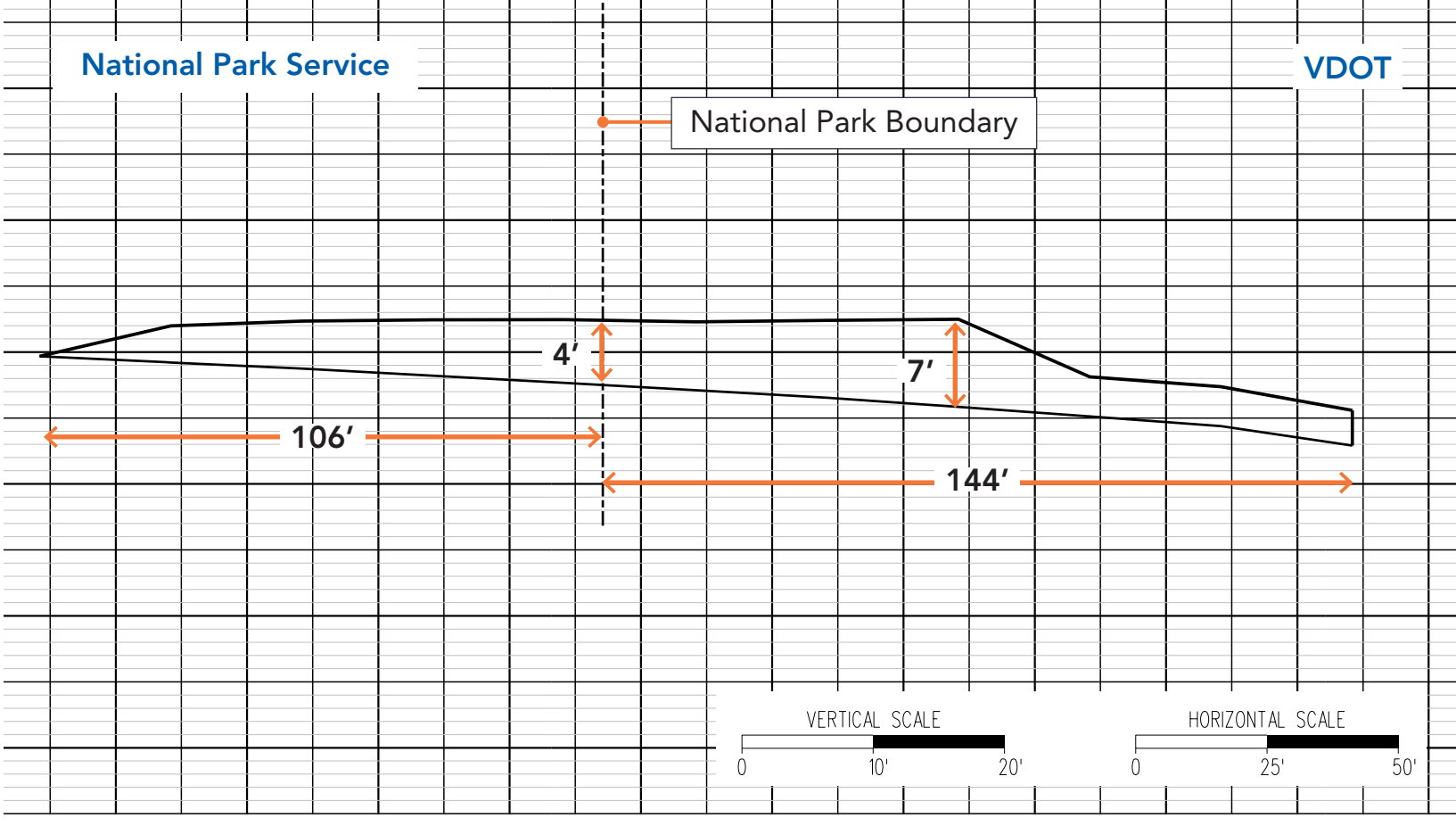
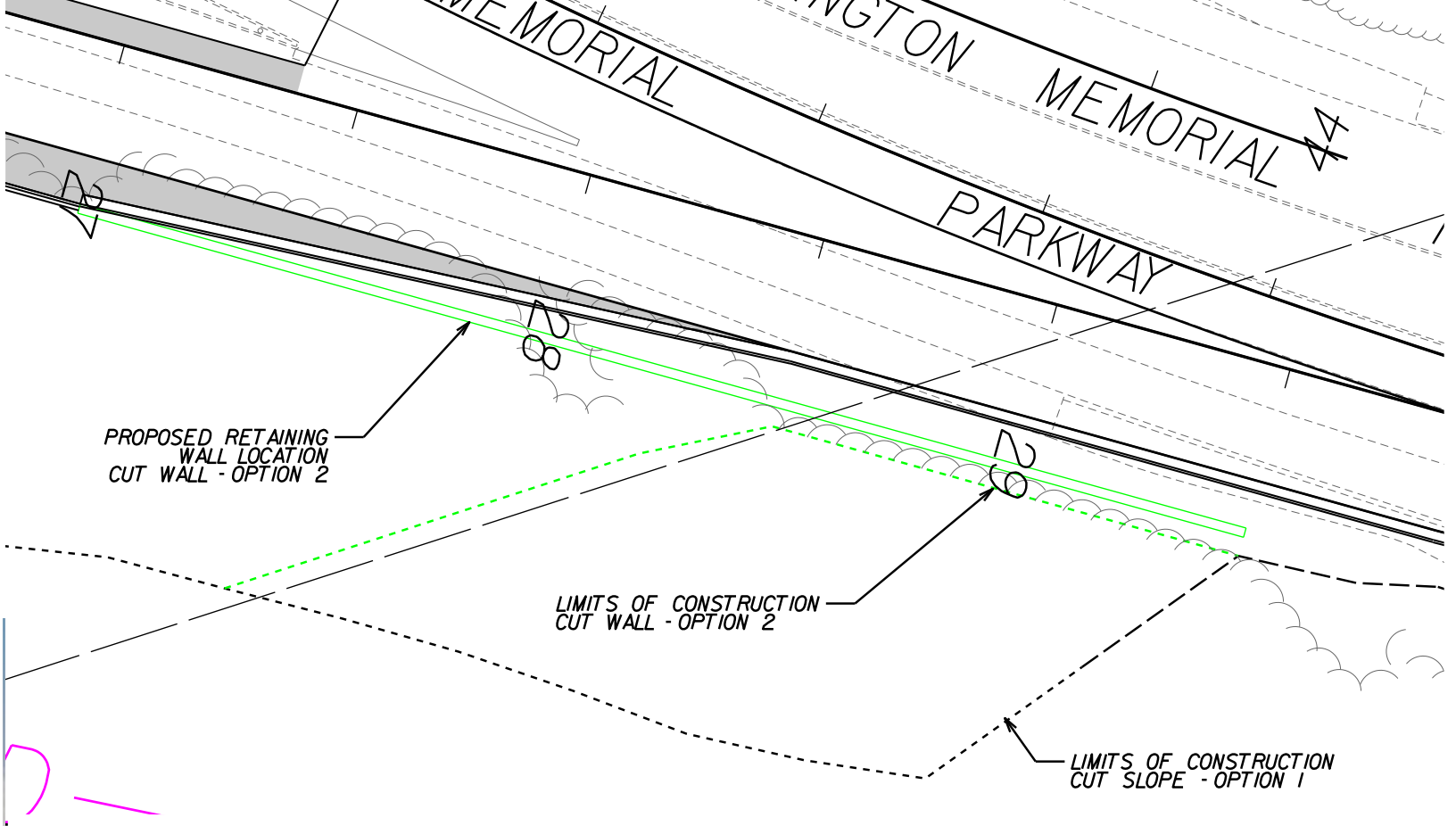
VIEWPOINT 6 Eastbound GWMP looking towards Park entrance from I-495 ramps





VIEWPOINT 6 Eastbound GWMP looking towards Park entrance from I-495 ramps

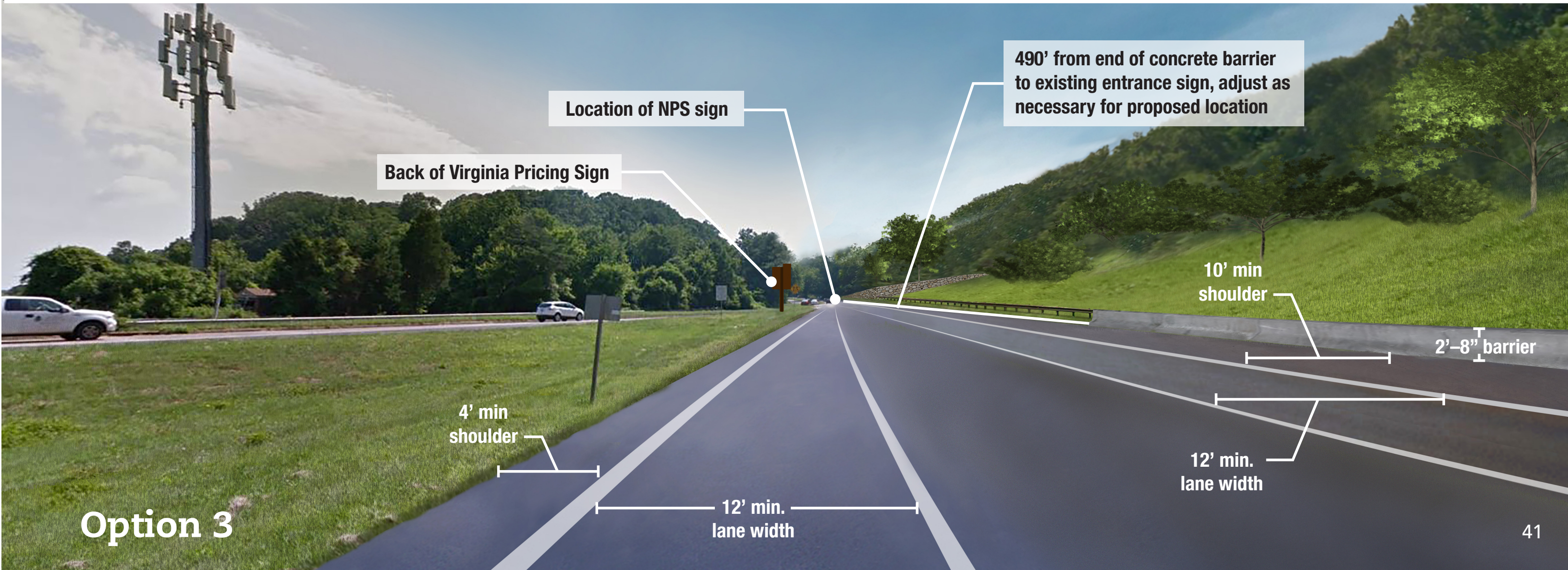
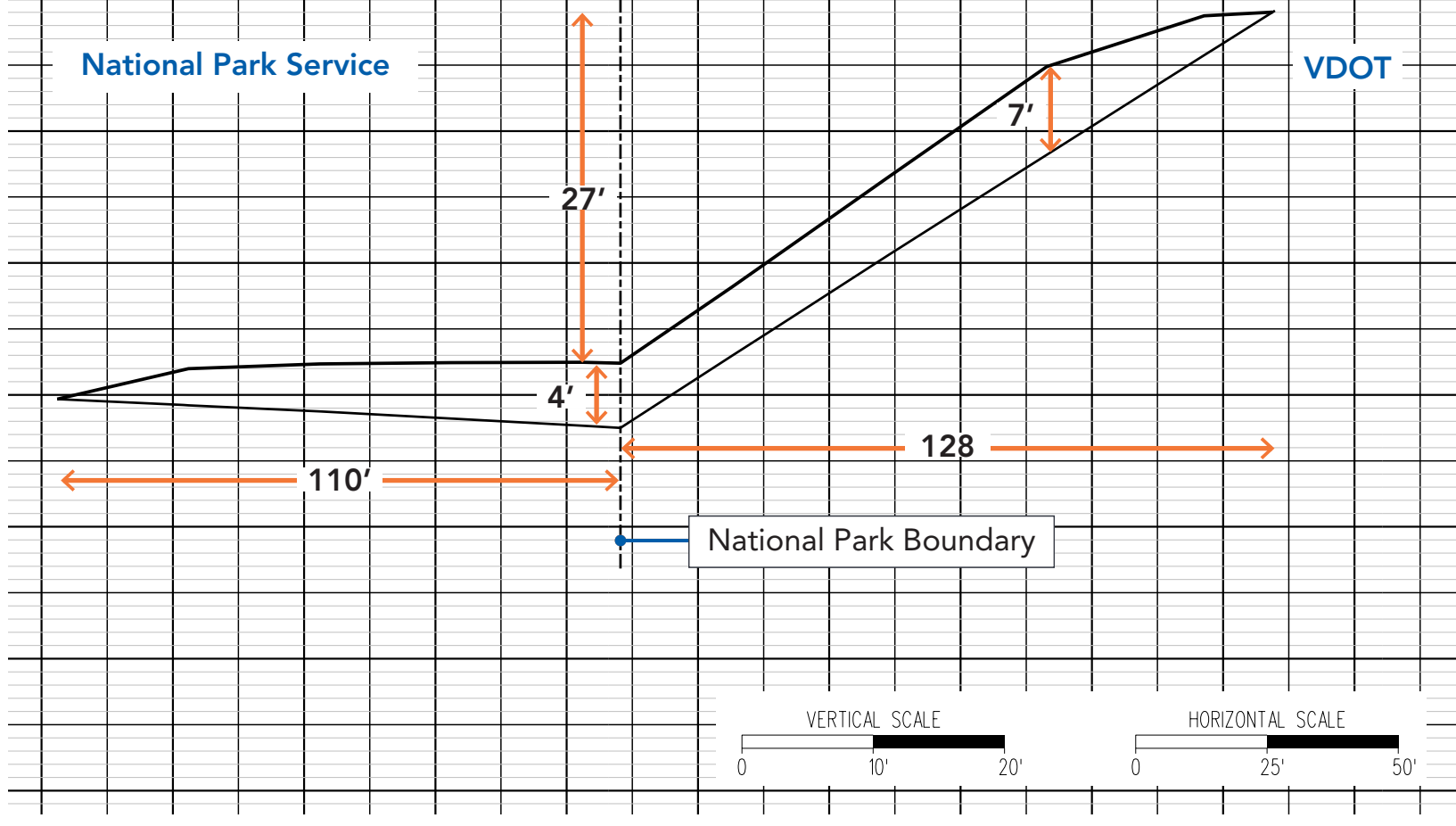
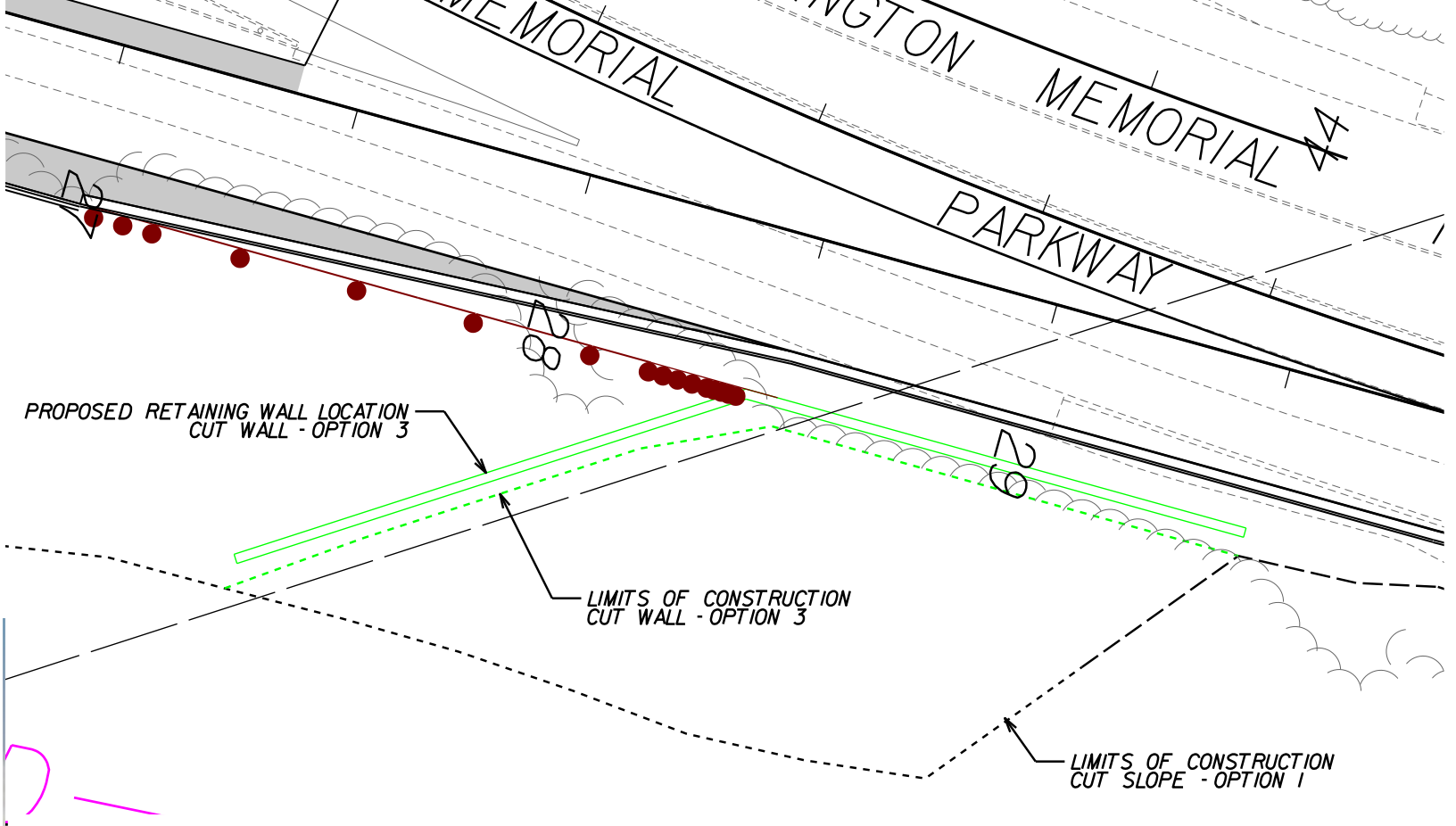




Option 2

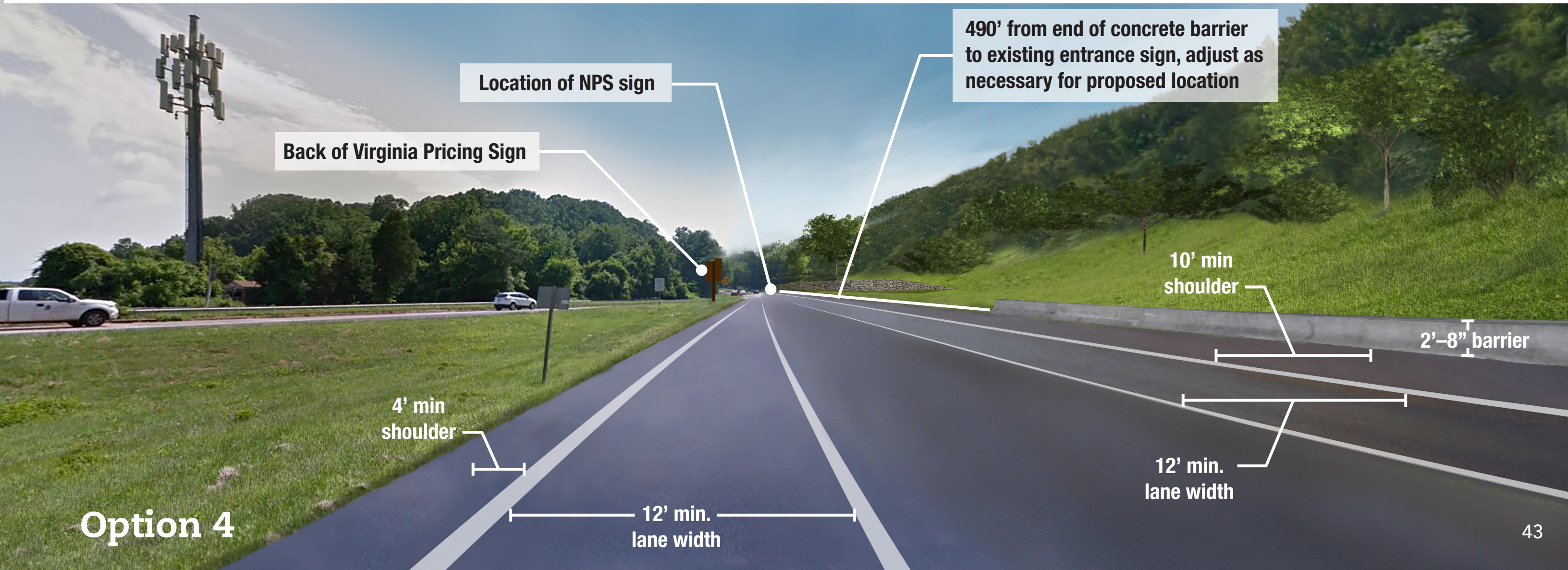
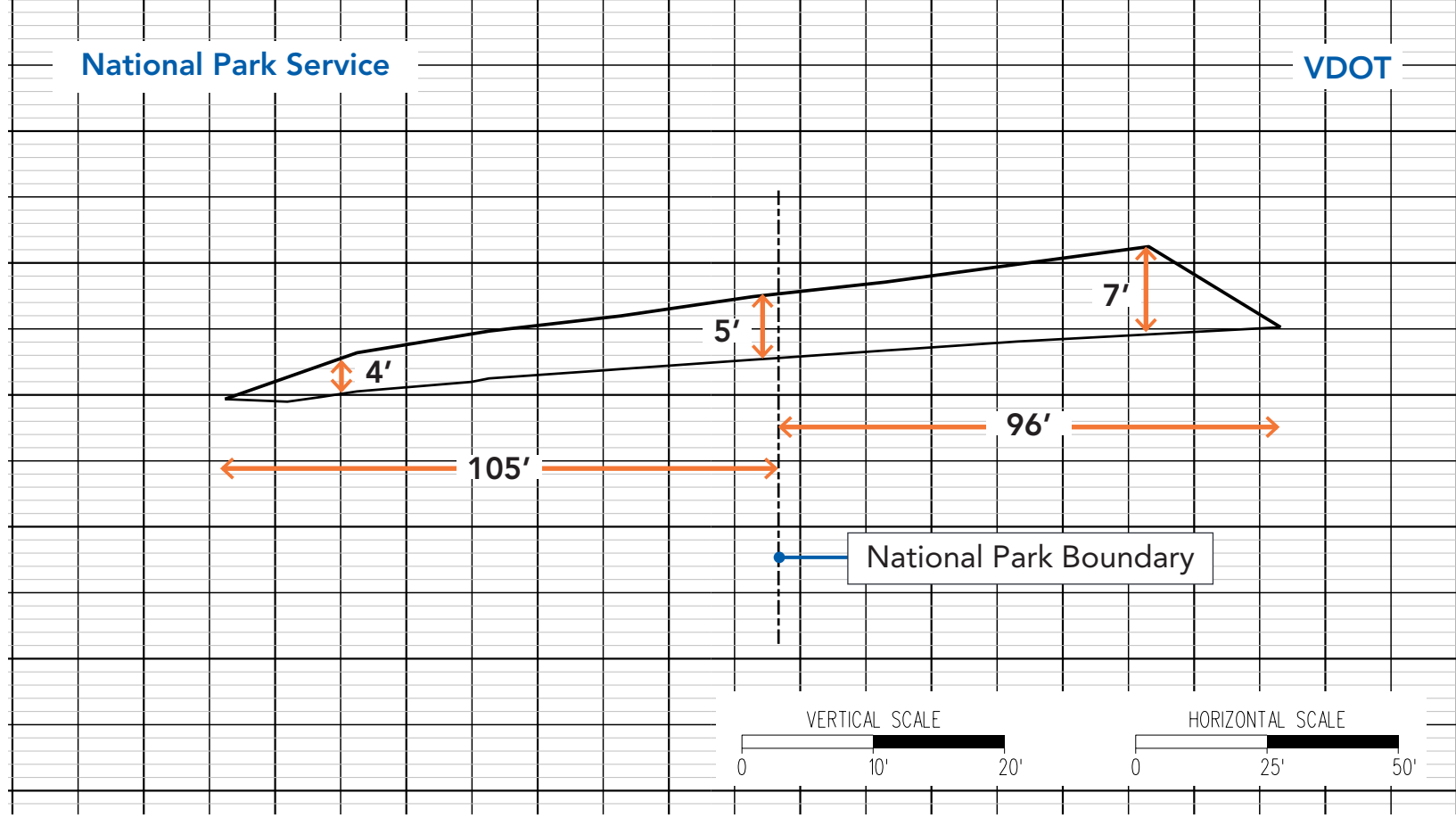
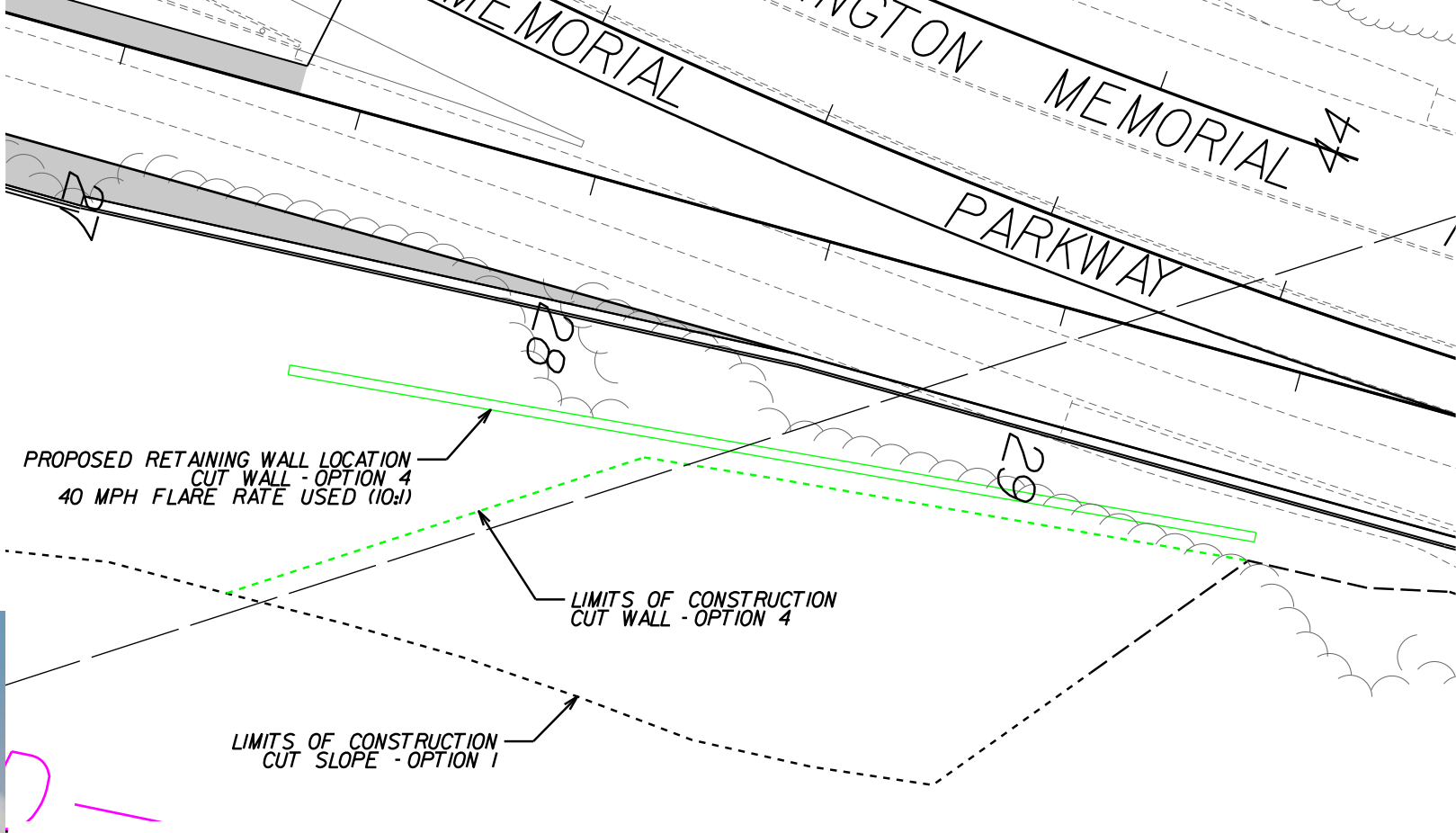
VIEWPOINT 6 Eastbound GWMP looking towards Park entrance from I-495 ramps





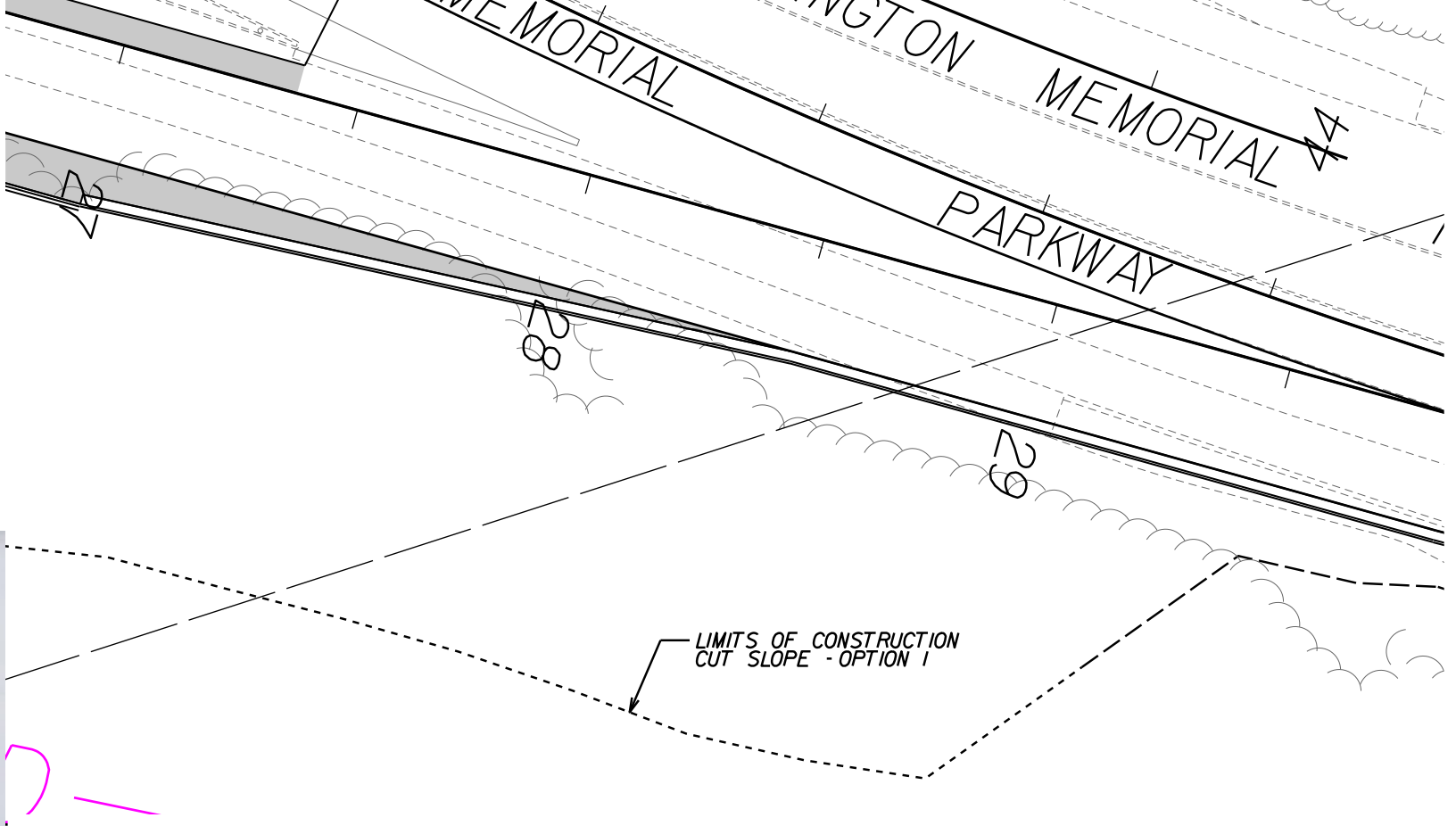
VIEWPOINT 6 Eastbound GWMP looking towards Park entrance from I-495 ramps





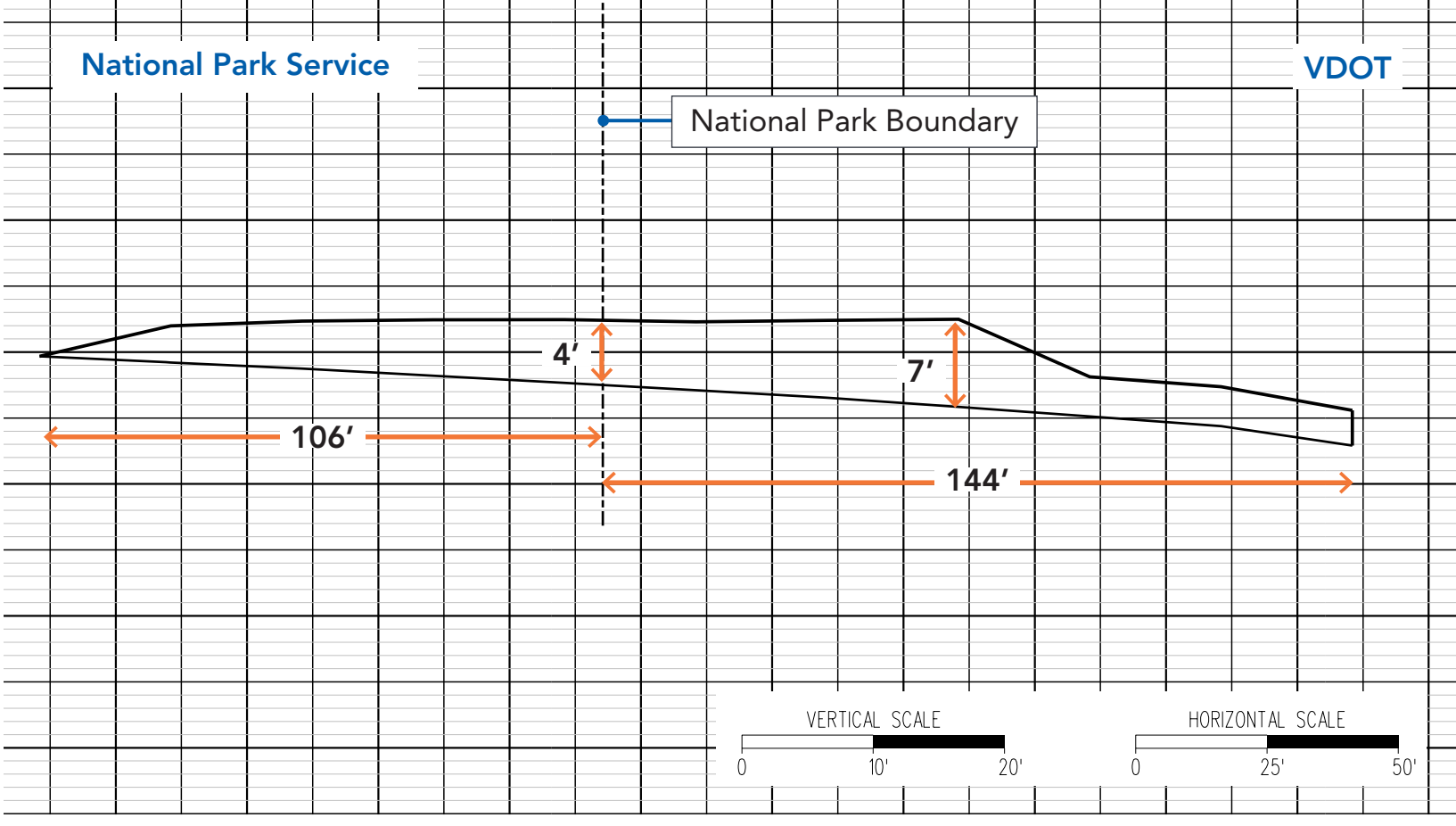
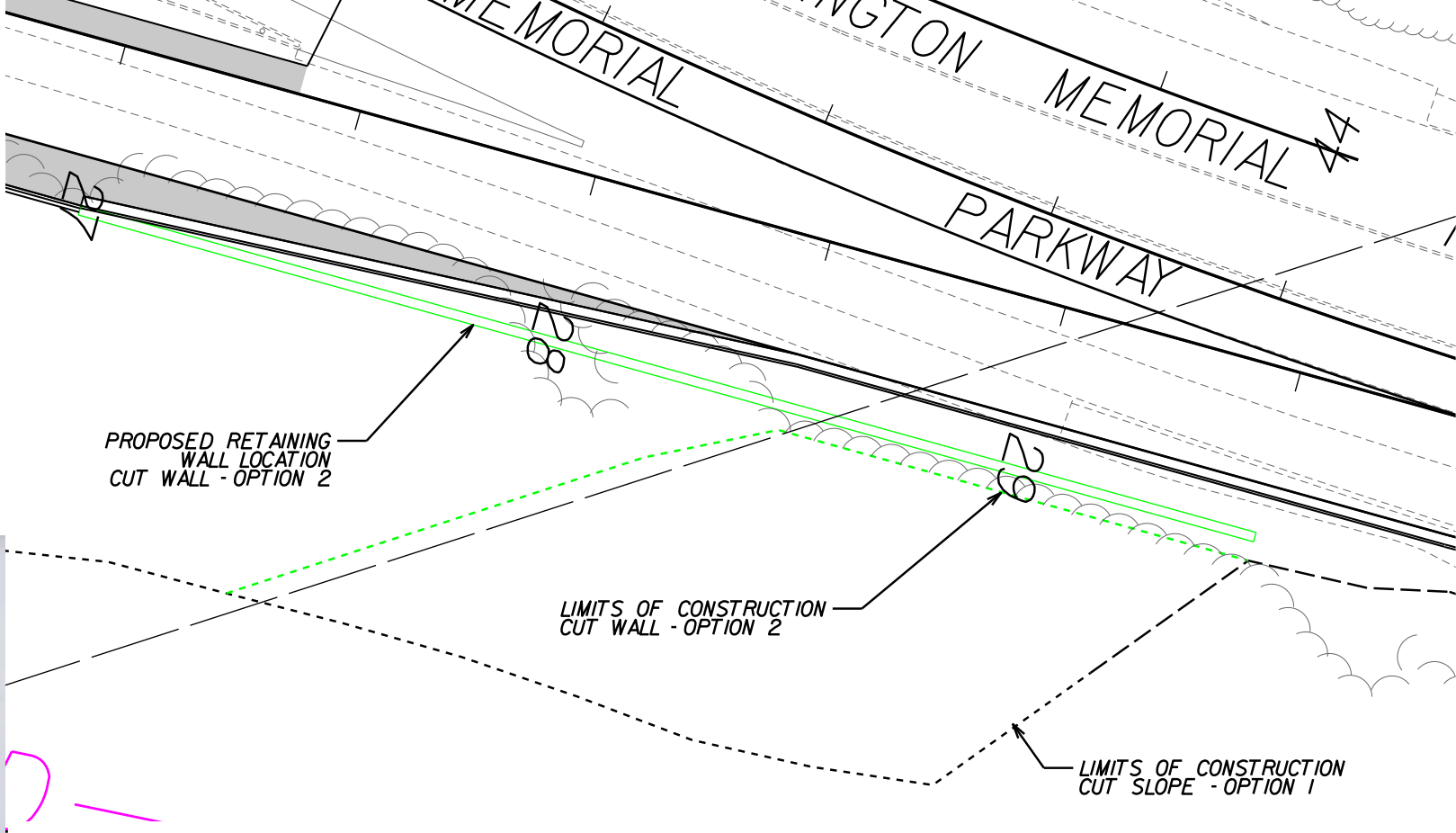
VIEWPOINT 7 Southeast Quadrant of GWMP interchange looking south from EB on ramp





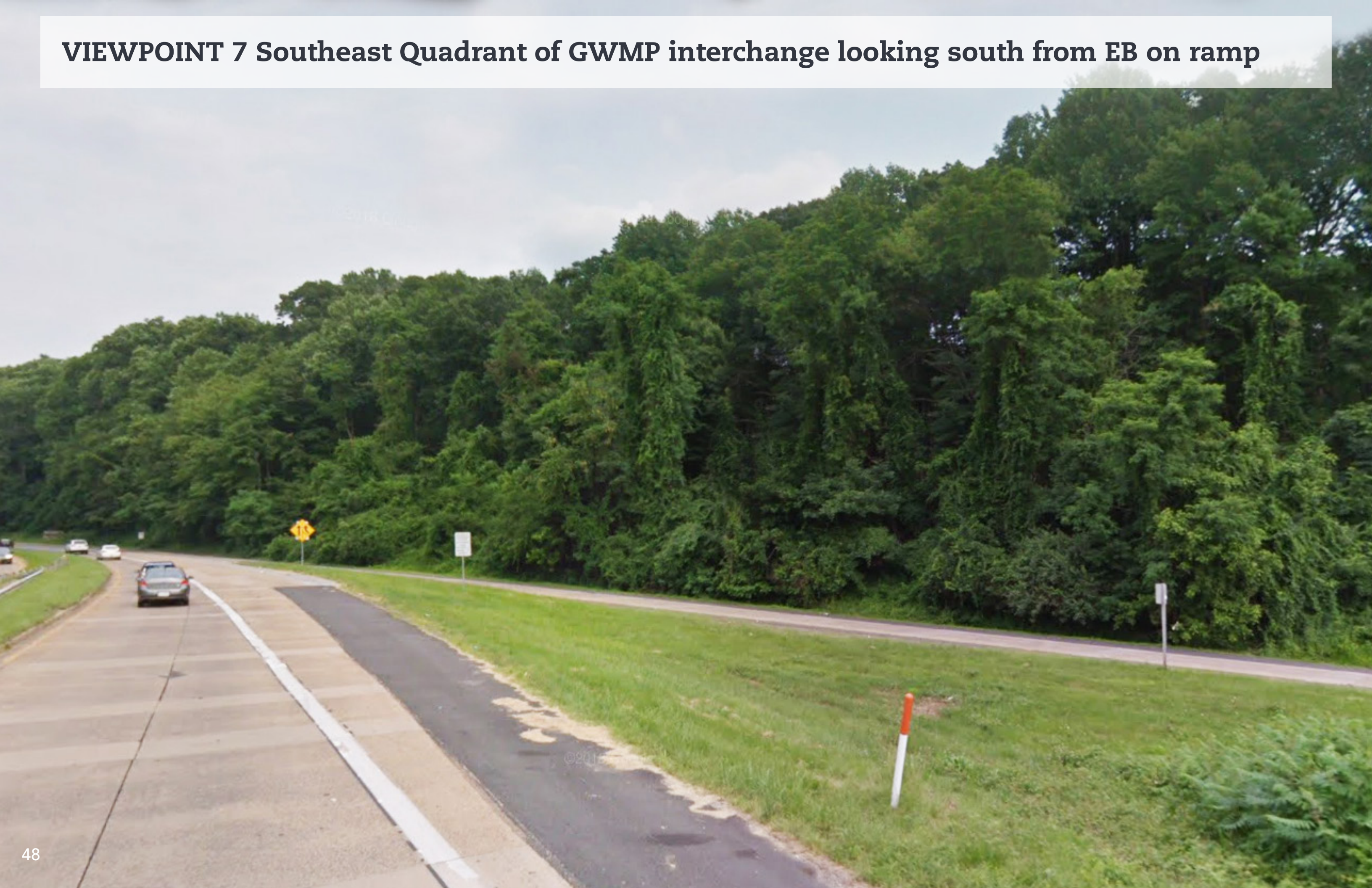
VIEWPOINT 7 Southeast Quadrant of GWMP interchange looking south from EB on ramp

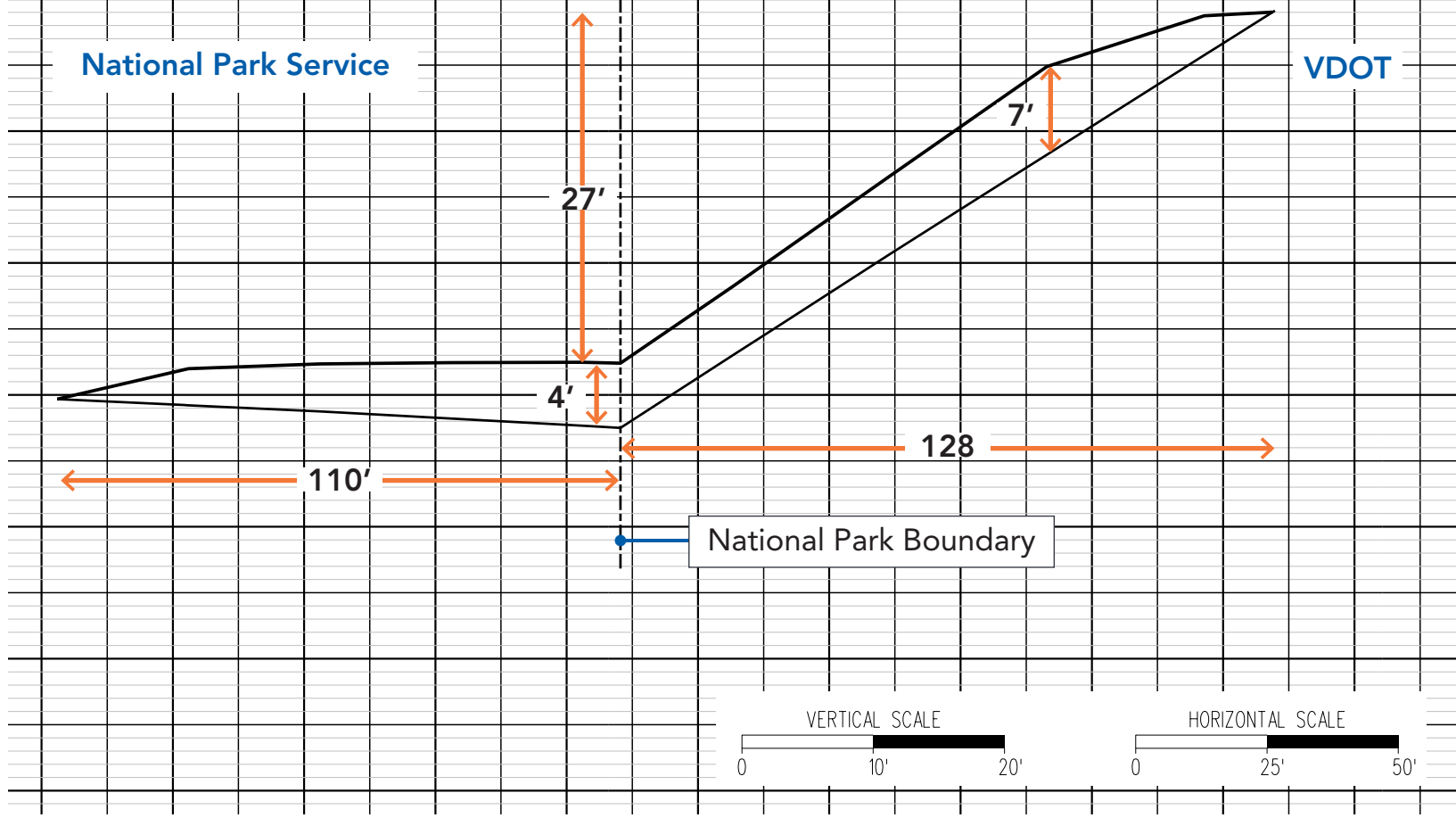
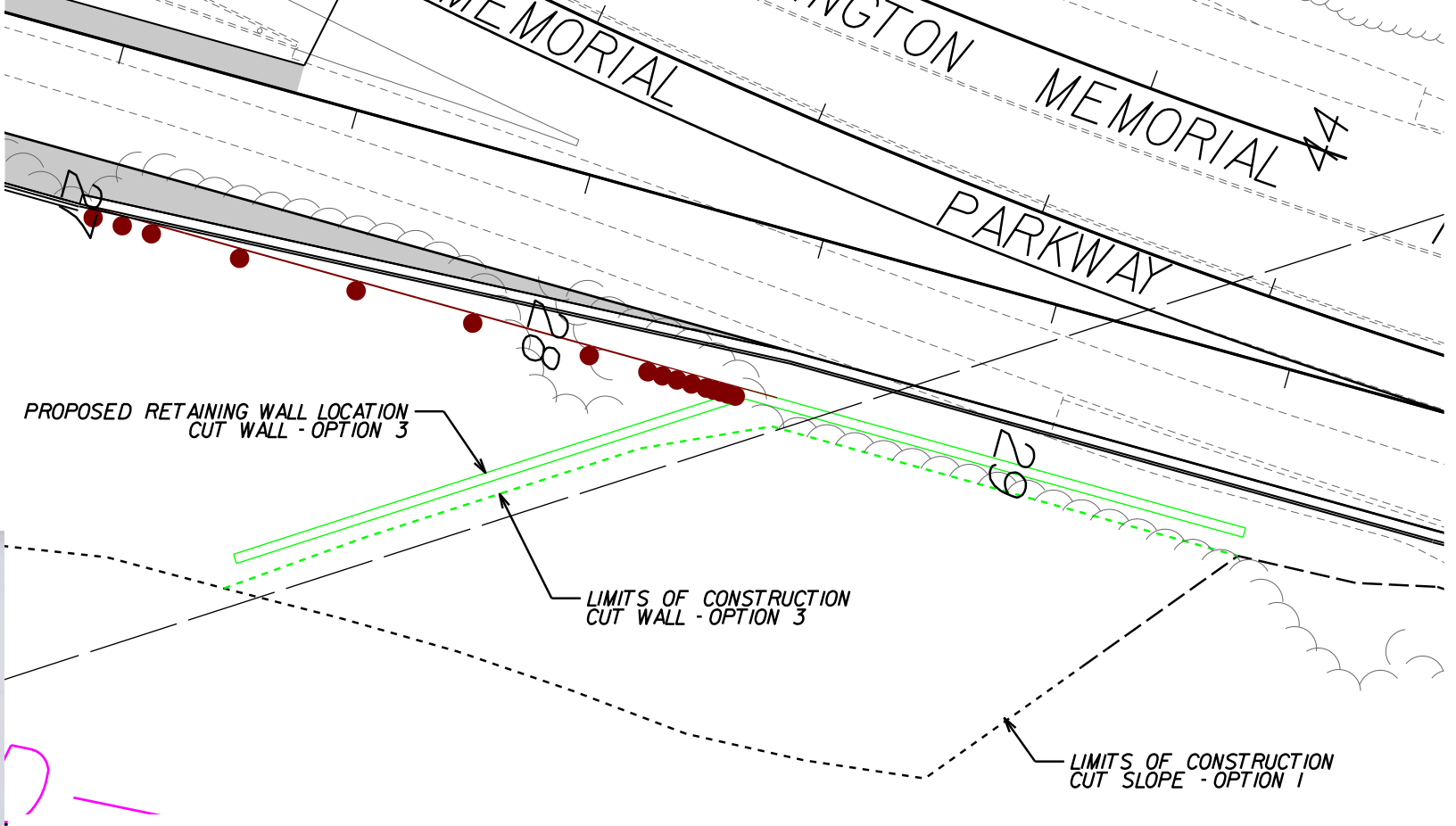




Option 2

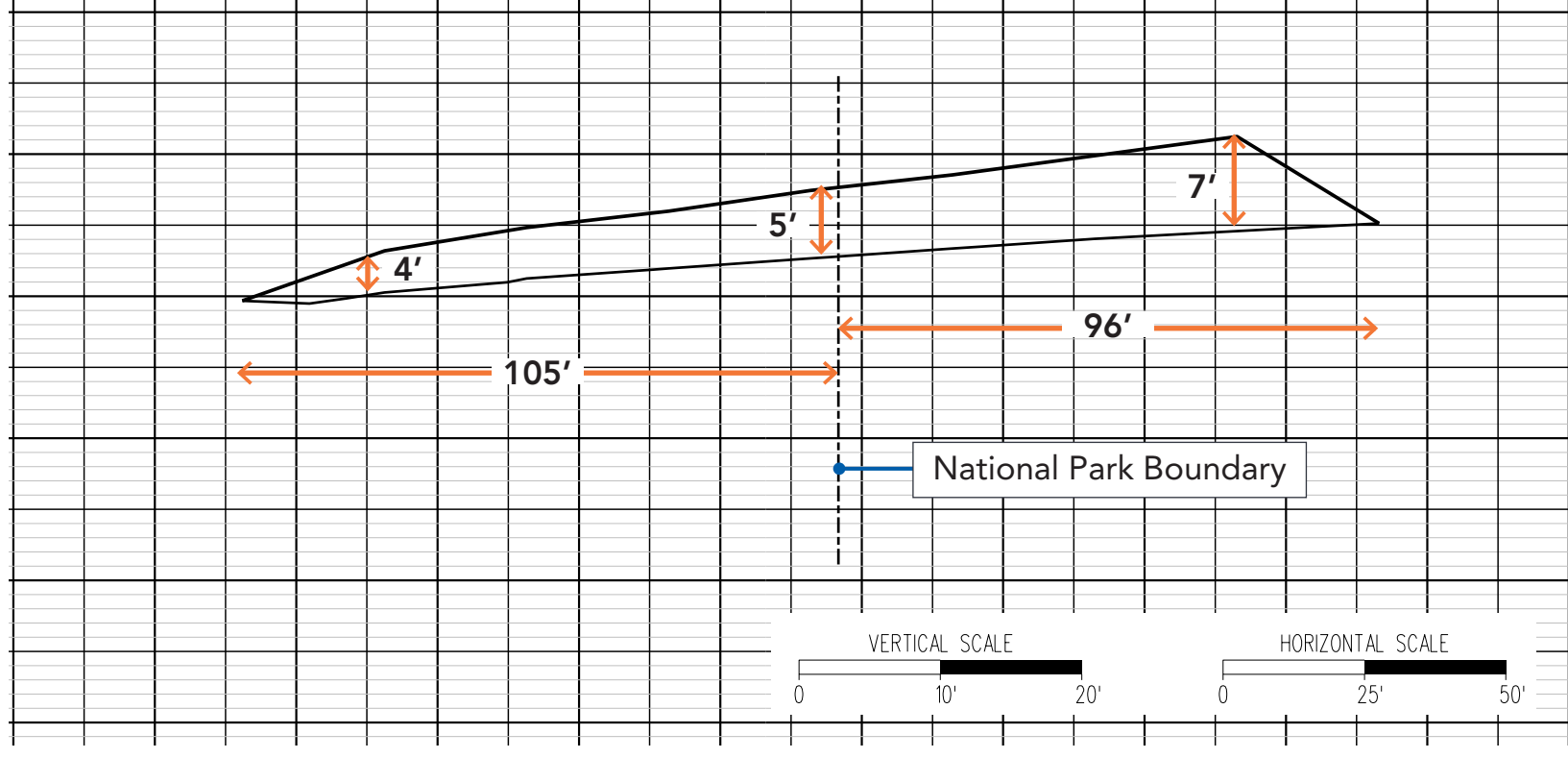
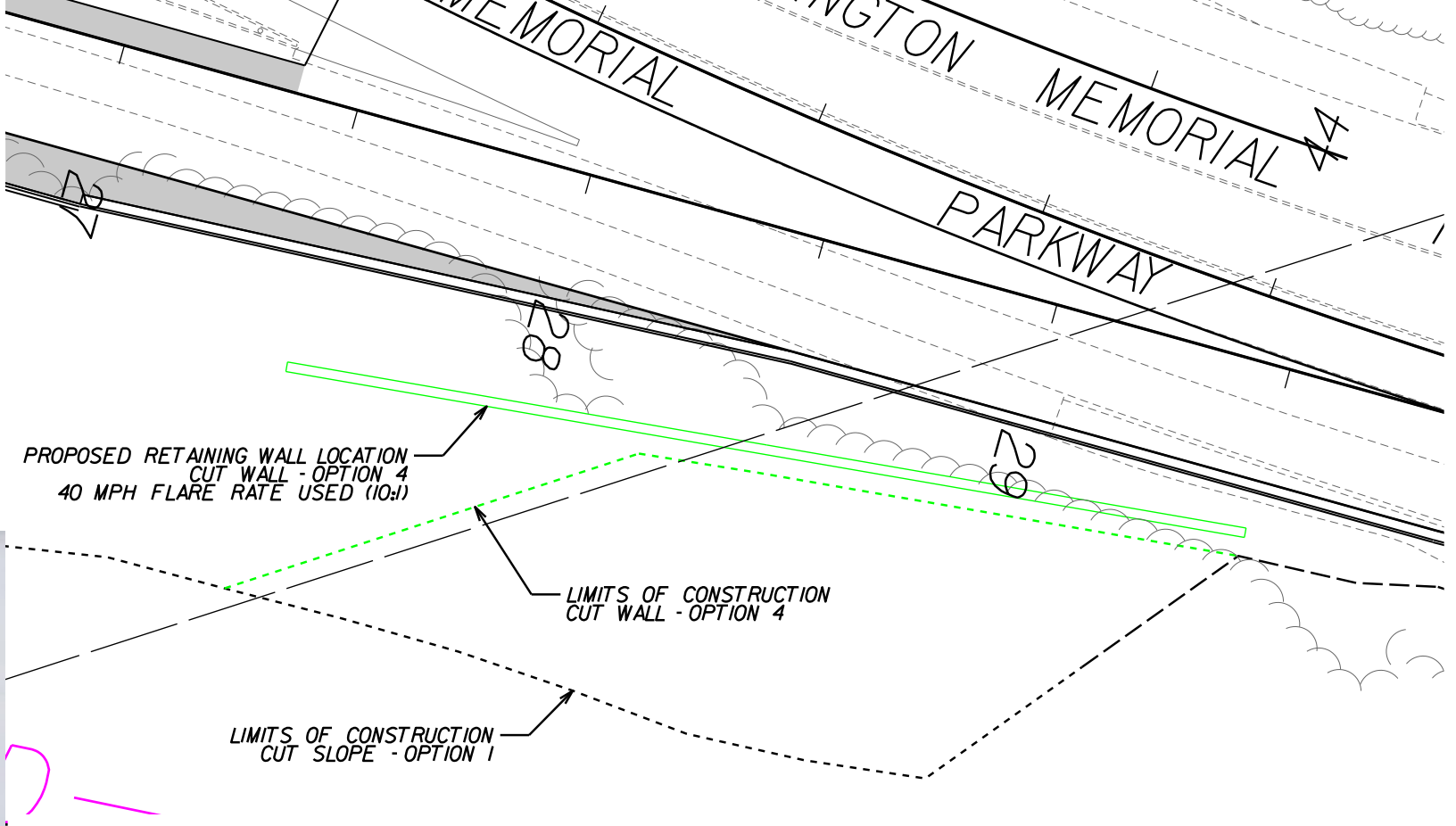
VIEWPOINT 7 Southeast Quadrant of GWMP interchange looking south from EB on ramp





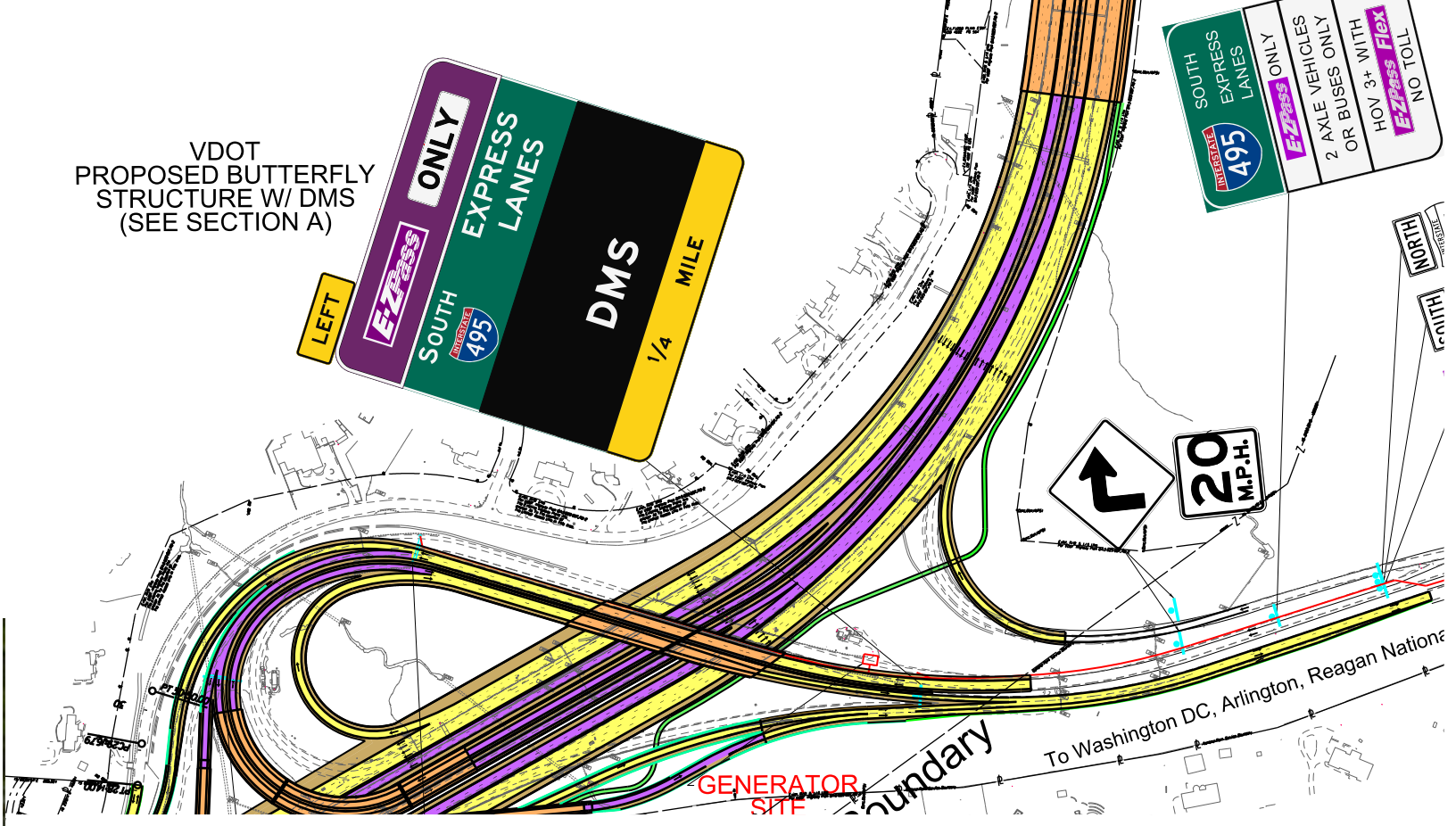
VIEWPOINT 7 Southeast Quadrant of GWMP interchange looking south from EB on ramp



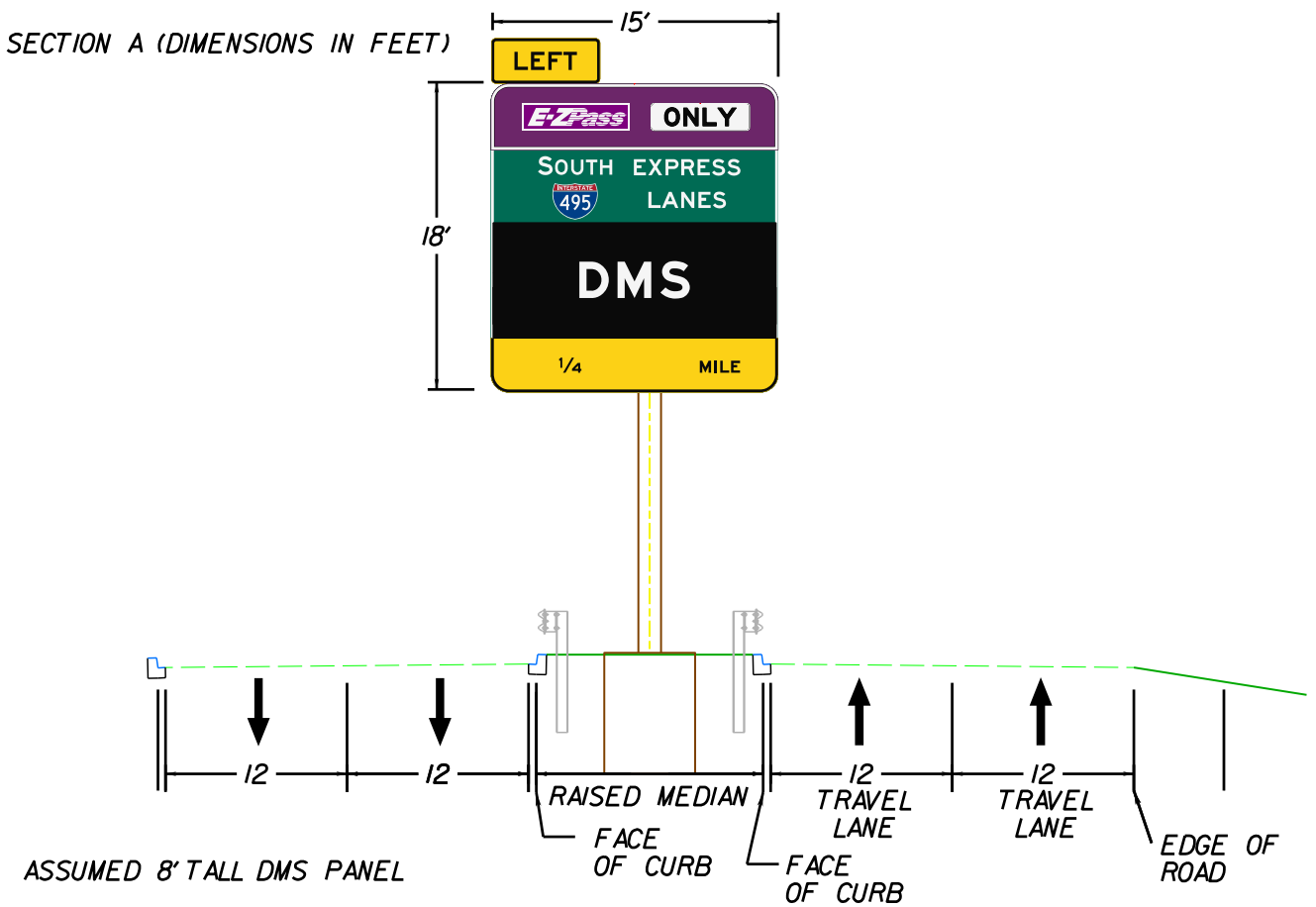


VIEWPOINT 2 Westbound GWMP looking towards I-495



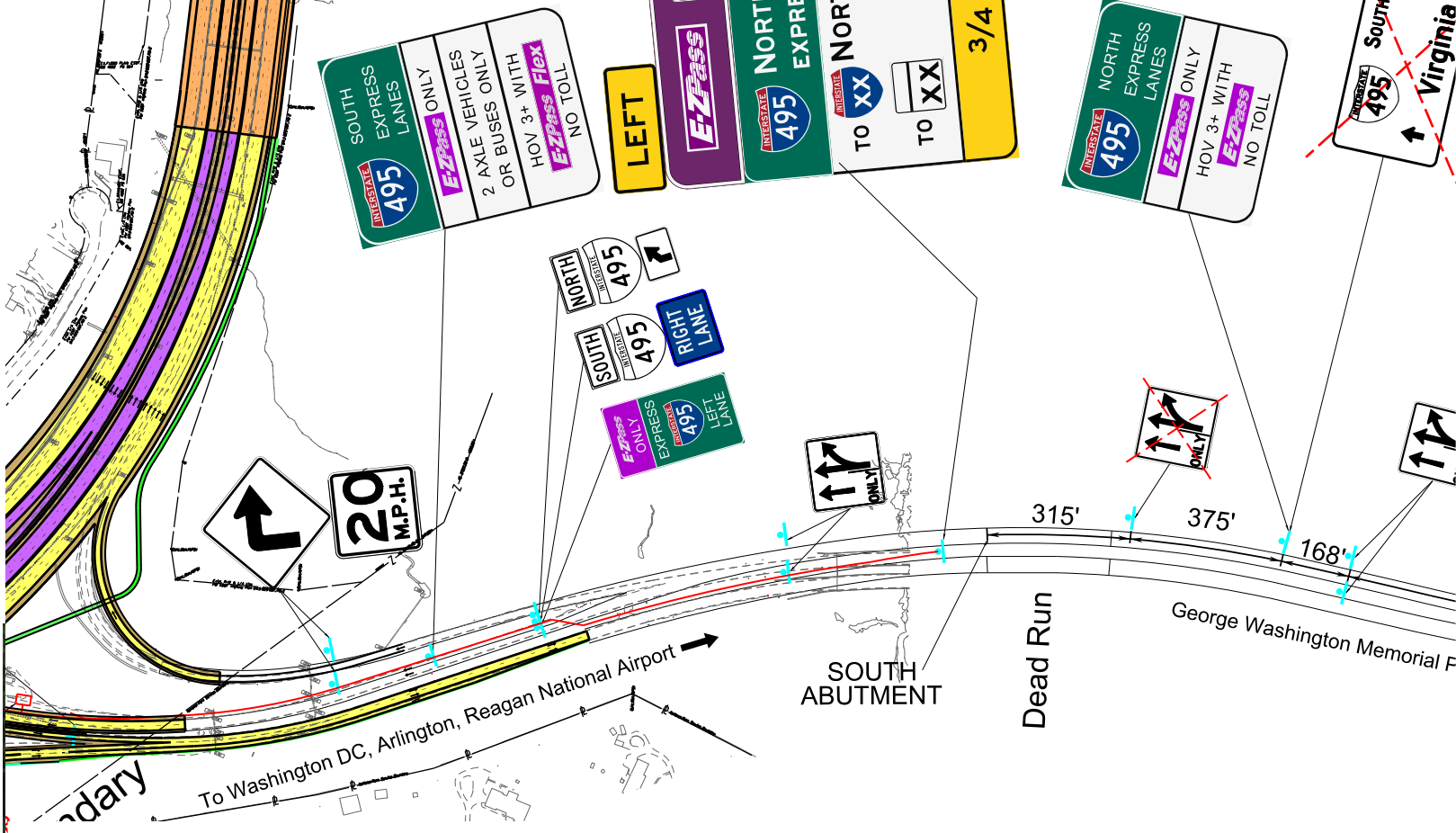


SECTION A (DIMENSIONS IN FEET)



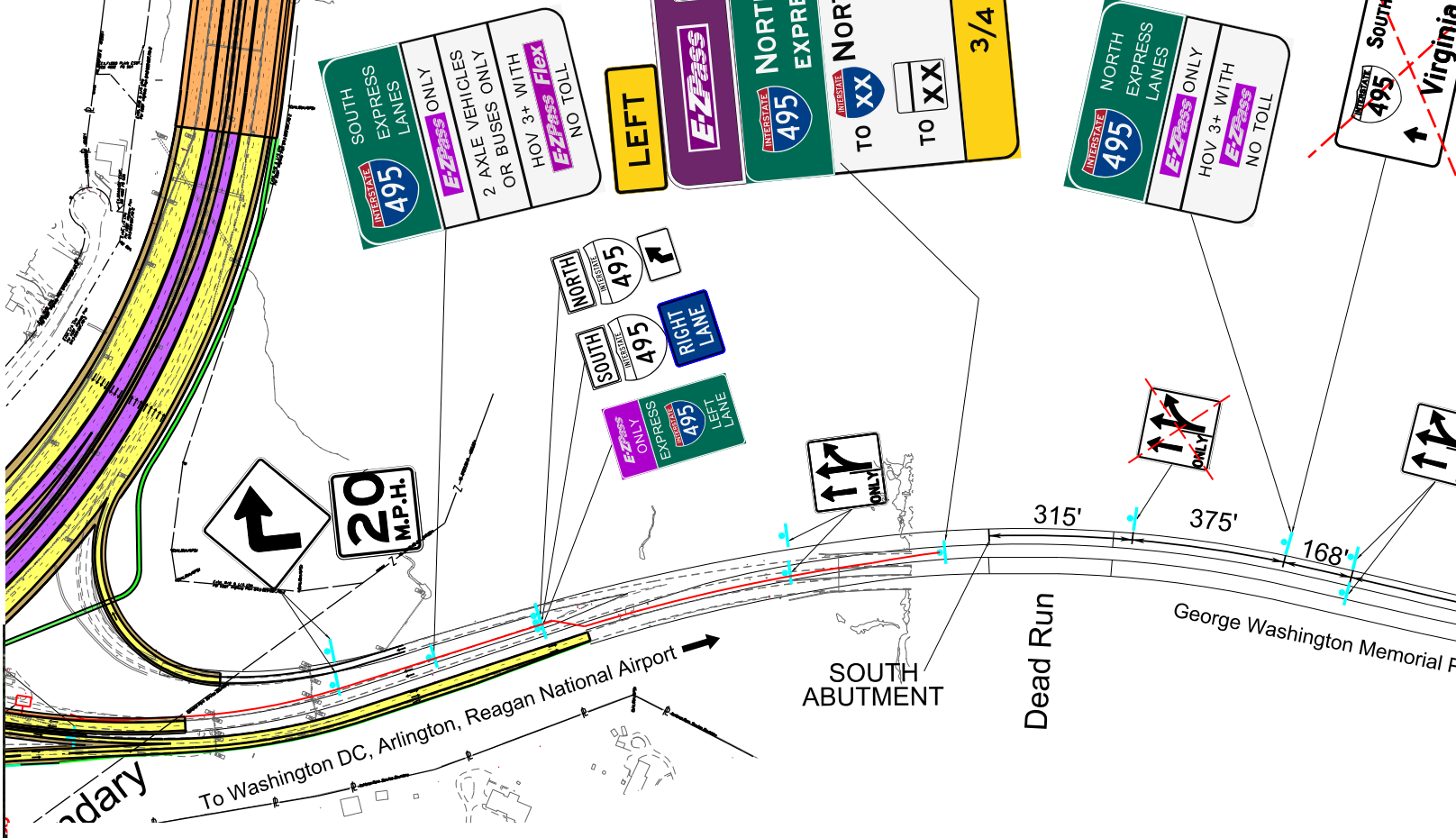
VIEWPOINT 3 Eastbound GWMP looking towards Dead Run





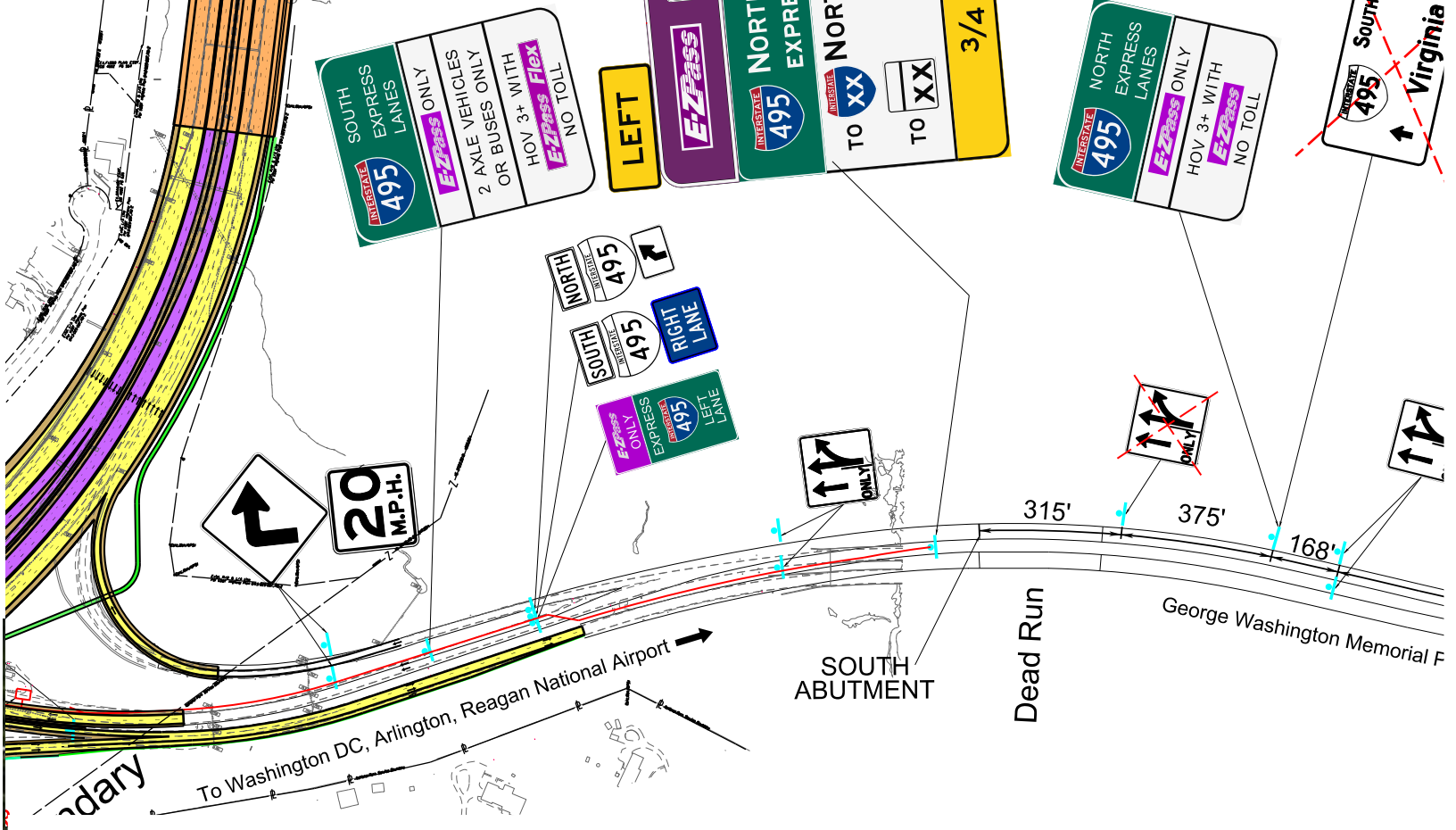
VIEWPOINT 4 Westbound GWMP looking towards I-495 inner loop ramp exit





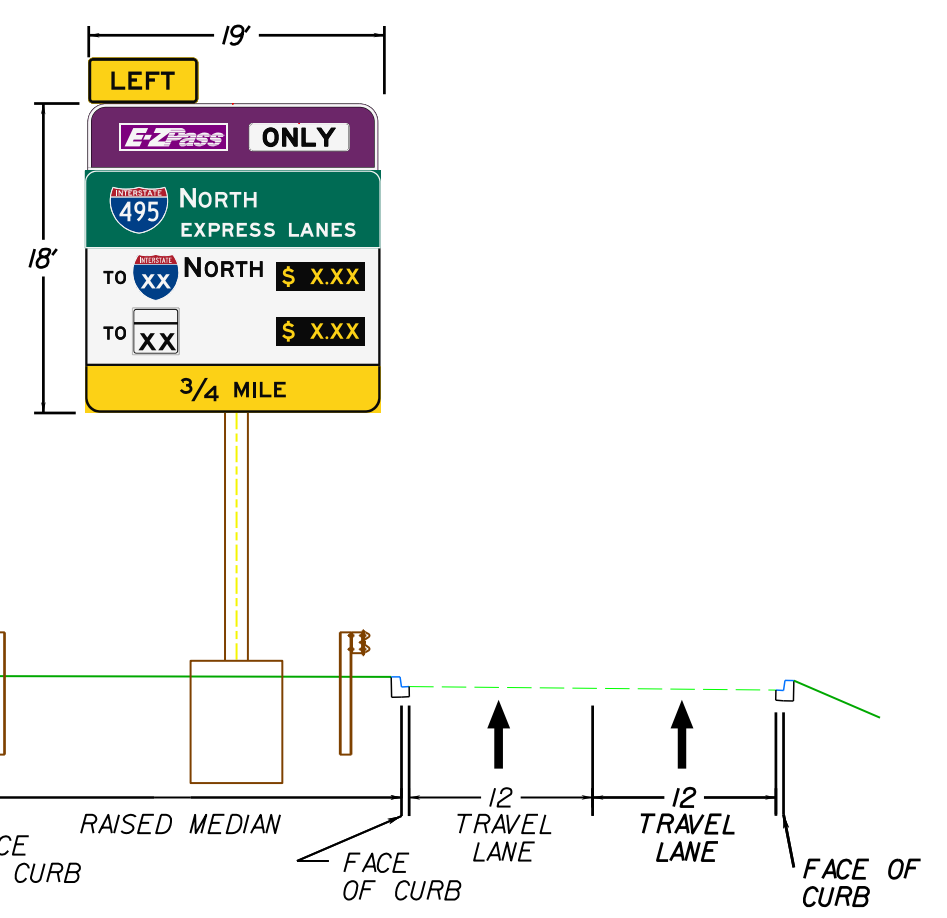
VIEWPOINT 5 Westbound GWMP looking west from Dead Run Bridge



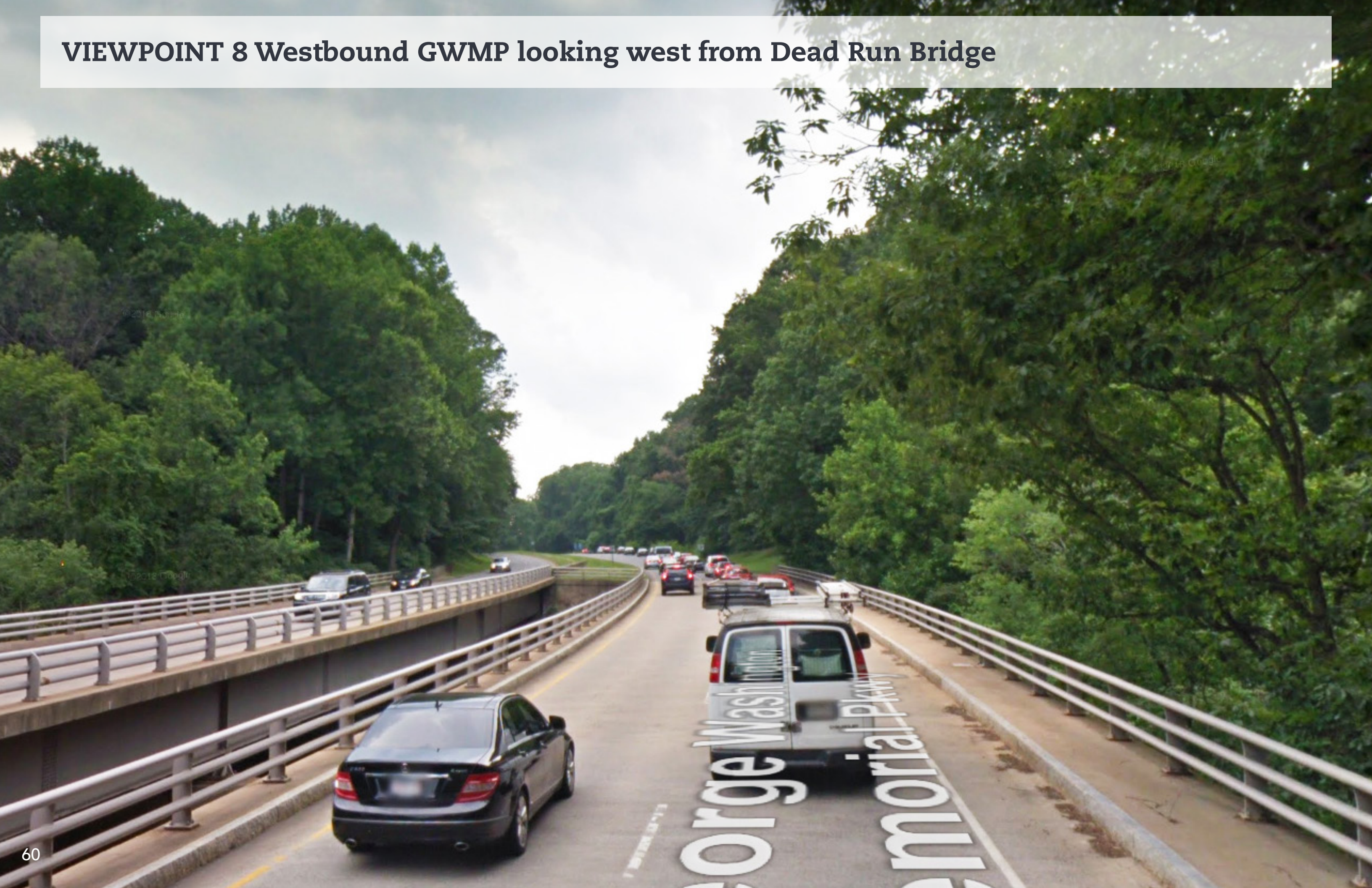


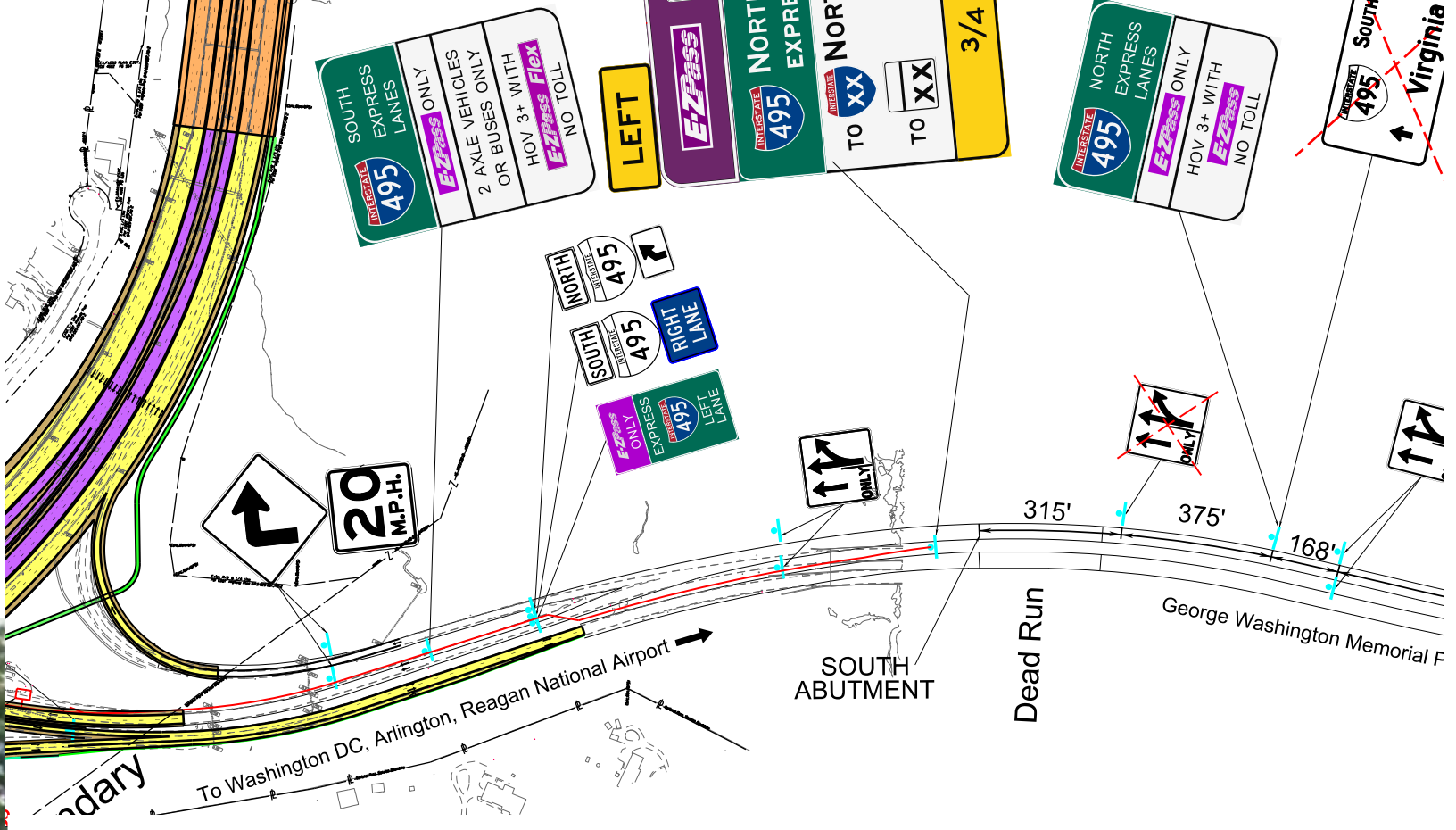
SECTION B (DIMENSIONS IN FEET)

TOLL RATES ARE DMS "BRICK" PANELS



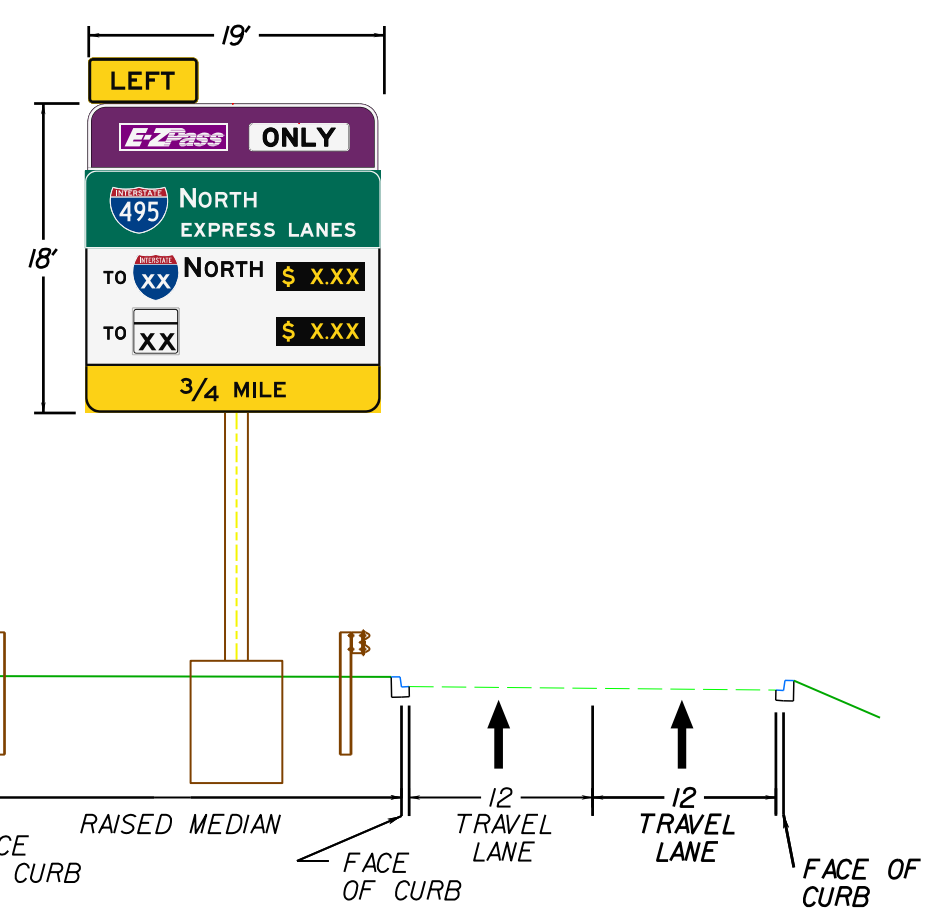
VIEWPOINT 8 Westbound GWMP looking west from Dead Run Bridge





SECTION B (DIMENSIONS IN FEET)

TOLL RATES ARE DMS "BRICK" PANELS



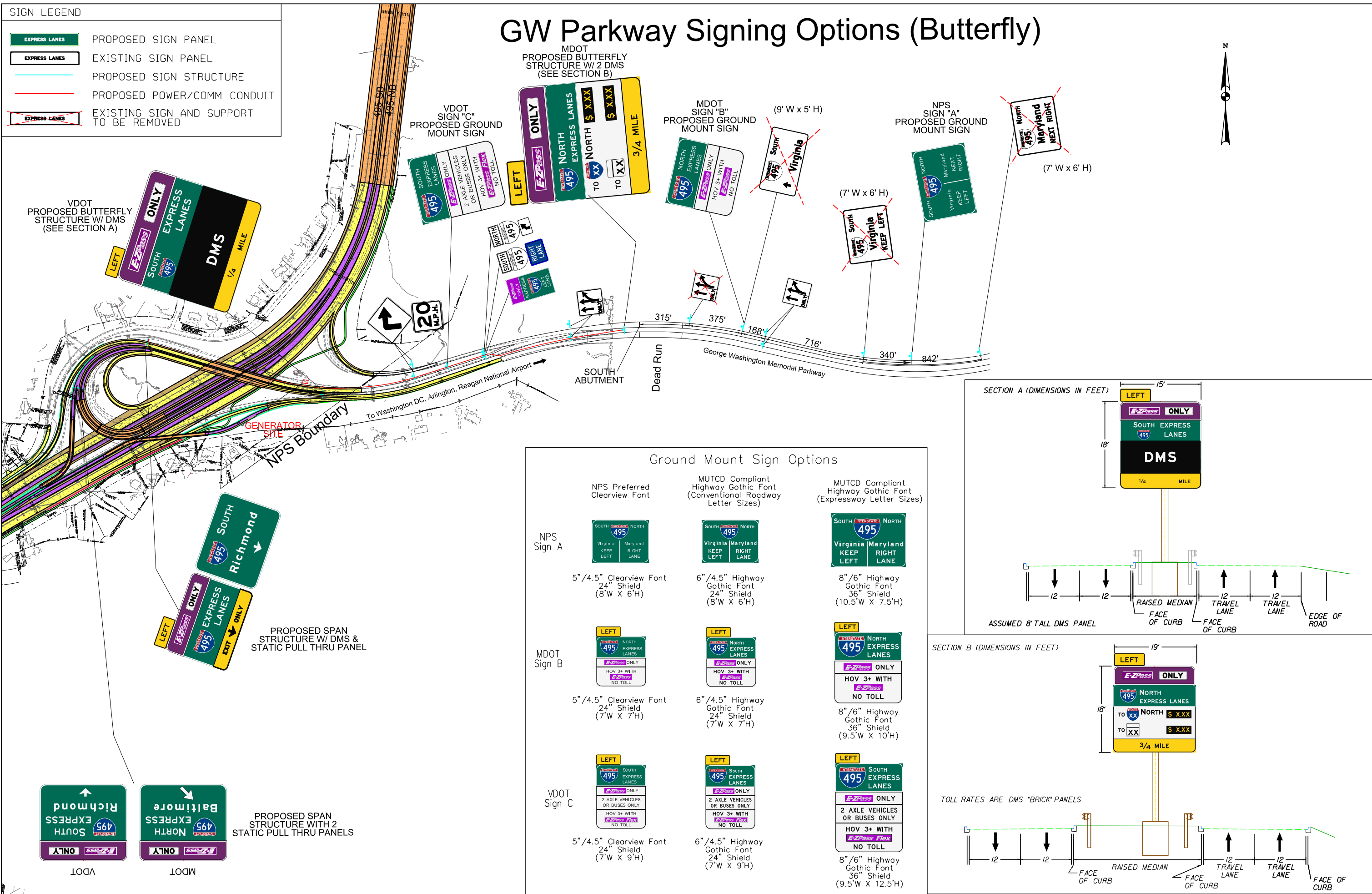
GEORGE WASHINGTON MEMORIAL PARKWAY WALL OPTIONS

		Option 1	Option 2	Option 3	Option 4
Potential Disturbance to currently Vegetated Areas Between Station 27+00 to end of construction on GWMP (sq ft)	GWMP	33,172	22,529	22,529	26,097
	VDOT	10,330	9,902	9,816	9,959
Maximum Slope Height (ft)	GWMP	34	0	0	5
	VDOT	38	38	38	38
Total Length of Wall (ft)	GWMP	0	89	89	105
	VDOT	0	161	129	96
Length of Wall Parallel to GWMP (ft)	GWMP	0	89	89	105
	VDOT	0	161	18	96
Maximum Visible Wall Height (ft)	GWMP	0	5	5	5
	VDOT	0	7	7	7
Surface Area of Wall (sq ft)	GWMP	0	274	274	355
	VDOT	0	737	713	483
Surface Area of Visible Wall after Vegetation Reestablishment (sq ft)	GWMP	0	274	274	355
	VDOT	0	737	275	483
Max. Offset Distance of Wall from Edge of Travel Way (ft)	GWMP	0	10	10	20
	VDOT	0	10	71	30
Number and Type of Trees Potentially Impacted by Option	GWMP	<u>58 Total Trees:</u> 24 Good Condition Trees 24 Fair Condition Trees 2 Poor Condition Trees 8 Dead Trees	<u>33 Total Trees:</u> 12 Good Condition Trees 15 Fair Condition Trees 2 Poor Condition Trees 4 Dead Trees	<u>33 Total Trees:</u> 12 Good Condition Trees 15 Fair Condition Trees 2 Poor Condition Trees 4 Dead Trees	<u>37 Total Trees:</u> 14 Good Condition Trees 16 Fair Condition Trees 2 Poor Condition Trees 5 Dead Trees

Notes: Plantings / vegetation will be provided to reestablish ground cover/tree screening post construction

SIGN LEGEND

	PROPOSED SIGN PANEL
	EXISTING SIGN PANEL
	PROPOSED SIGN STRUCTURE
	PROPOSED POWER/COMM CONDUIT
	EXISTING SIGN AND SUPPORT TO BE REMOVED



495 Express Lanes Northern Extension (NEXT) RFP Conceptual Plans - Signing, Lighting and Pavement Marking DRAFT - January 17, 2020

These Plans are Unfinished and Unapproved and are not to be used for any type of construction or the Acquisition of Right of Way.

495 North
Scroll 3 of 8

SCALE
0 50 100

PHASE 1 ROADWAY LEGEND

- PHASE 1 - PROPOSED EXPRESS LANES & RAMP
- PHASE 1 - PROPOSED GENERAL PURPOSE LANE IMPROVEMENTS
- PHASE 1 - PROPOSED PAVED SHOULDER
- PHASE 1 - PROPOSED BRIDGE
- PHASE 1 - PROPOSED SHARED USE PATH
- PHASE 1 - PROPOSED PAVEMENT RESURFACING FOR PERMANENT TRAFFIC SHIFT (AND ADDED CAPACITY) CURRENT AND POTENTIAL FUTURE CONSTRUCTION WORKS BY OTHERS (NOT TO PRECLUDE)

PHASE 1 SIGNING AND MARKING LEGEND

- EXISTING SIGN / STRUCTURE
- PROPOSED SIGN / STRUCTURE
- PROPOSED EXPRESS LANES DMS
- EXISTING DMS
- EXISTING SIGN PANEL
- PROPOSED SIGN PANEL
- PROPOSED SIGN PANEL *TEXT*
- SIGN PANEL ACTION (SEE ACTIONS)
- EXISTING PAVEMENT MARKING
- PROPOSED PAVEMENT MARKING

ACTIONS

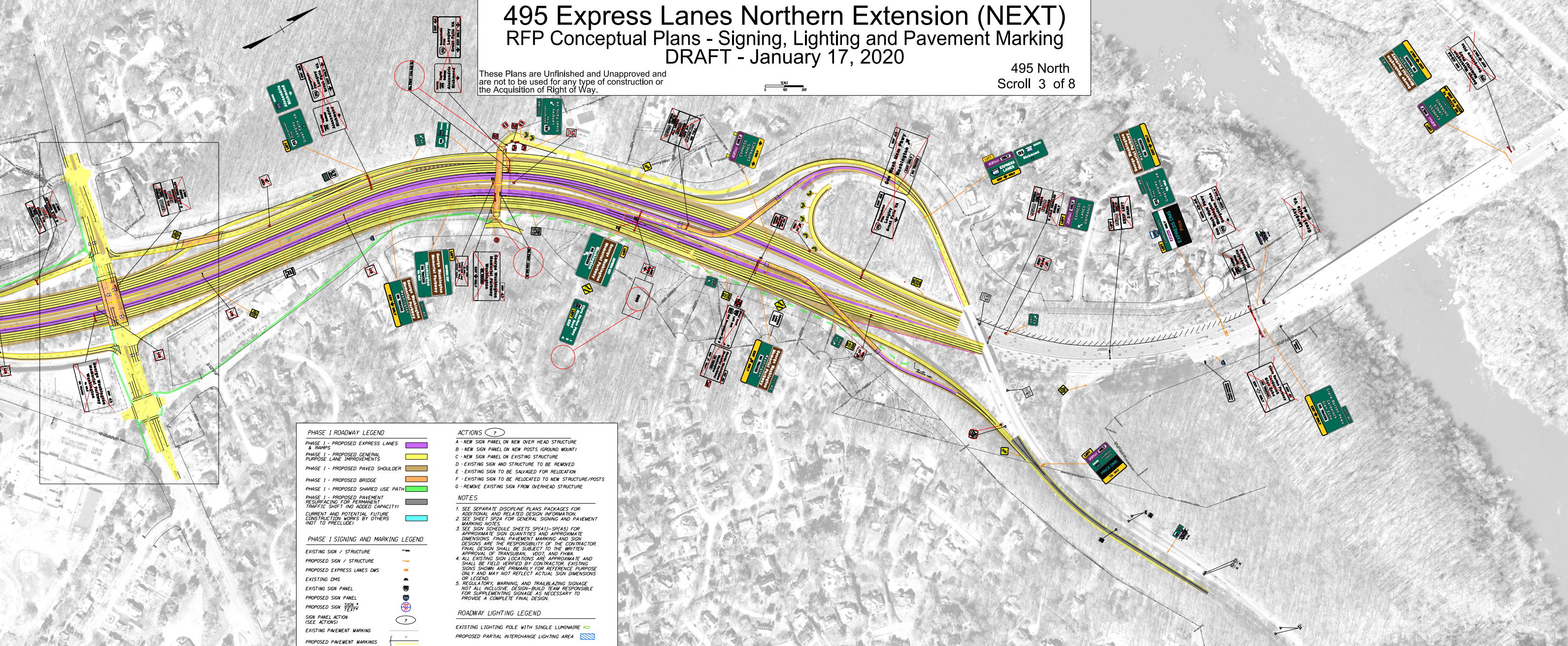
- A - NEW SIGN PANEL ON NEW OVER HEAD STRUCTURE
- B - NEW SIGN PANEL ON NEW POSTS (GROUND MOUNT)
- C - NEW SIGN PANEL ON EXISTING STRUCTURE
- D - EXISTING SIGN AND STRUCTURE TO BE REMOVED
- E - EXISTING SIGN TO BE SALVAGED FOR RELOCATION
- F - EXISTING SIGN TO BE RELOCATED TO NEW STRUCTURE/POSTS
- G - REMOVE EXISTING SIGN FROM OVERHEAD STRUCTURE

NOTES

1. SEE SEPARATE DISCIPLINE PLANS PACKAGES FOR ADDITIONAL AND RELATED DESIGN INFORMATION.
2. SEE SHEET SP2A FOR GENERAL SIGNING AND PAVEMENT MARKING NOTES.
3. SEE SIGN SCHEDULE SHEETS SP(A1)-SP(A5) FOR APPROXIMATE SIGN QUANTITIES AND APPROXIMATE DIMENSIONS. FINAL PAVEMENT MARKING AND SIGN DESIGNS ARE THE RESPONSIBILITY OF THE CONTRACTOR. FINAL DESIGN SHALL BE SUBJECT TO THE WRITTEN APPROVAL OF TRANSCAN, VDOT, AND FHWA.
4. ALL EXISTING SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY CONTRACTOR. EXISTING SIGNS SHOWN ARE PRIMARILY FOR REFERENCE PURPOSE ONLY AND MAY NOT REFLECT ACTUAL SIGN DIMENSIONS OR LEGEND.
5. REGULATORY, WARNING, AND TRAILBLAZING SIGNAGE NOT ALL INCLUSIVE. DESIGN-BUILD TEAM RESPONSIBLE FOR SUPPLEMENTING SIGNAGE AS NECESSARY TO PROVIDE A COMPLETE FINAL DESIGN.

ROADWAY LIGHTING LEGEND

- EXISTING LIGHTING POLE WITH SINGLE LUMINAIRE
- PROPOSED PARTIAL INTERCHANGE LIGHTING AREA



Appendix

- a. Option 1 with Tree Survey
- b. Option 2 with Tree Survey
- c. Option 3 with Tree Survey
- d. Option 4 with Tree Survey



Impacts - Option 1

Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)				
272	16	tuliptree	Liriodendron tulipifera	66	Fair	1	7	24		One Sided, Large DW (3"+), Trunk Decay, Basal Decay, Broken Limbs, Mechanical Damage	Yes	Root Zone
273	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			Yes	Potentially Root Zone
274	10	tree of heaven	Ailanthus altissima	50	Fair	1	5	15		Trunk Decay, Branch Decay, Broken Limbs, Vines	Yes	Root Zone
275	10	ash, spp.	Fraxinus spp.	0	Dead	1	5	15		Vines	Yes	Root Zone
276	21	tuliptree	Liriodendron tulipifera	72	Good	1	9	32			Yes	Root Zone
277	14	maple, red	Acer rubrum	59	Fair	1	6	21		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs, Stressed, Mechanical Damage, Serious Decline	Yes	Trunk
278	13	tuliptree	Liriodendron tulipifera	72	Good	1	6	20		One Sided, Branch Decay, Broken Limbs	Yes	Trunk
279	10	locust, black	Robinia pseudoacacia	0	Dead	1	5	15			Yes	Trunk
280	9	locust, black	Robinia pseudoacacia	45	Poor	1	4	14	Topped	Stressed, Vines, Serious Decline	Yes	Trunk
281	12	beech, American	Fagus grandifolia	69	Fair	1	5	18		One Sided, Included Bark/Weak Union	Yes	Trunk
282	13	maple, red	Acer rubrum	69	Fair	1	6	20		Basal Decay	Yes	Trunk
283	13	maple, red	Acer rubrum	72	Good	1	6	20			Yes	Trunk
284	13	maple, red	Acer rubrum	67	Fair	1	6	20		One Sided, Branch Decay	Yes	Trunk
285	9	maple, red	Acer rubrum	69	Fair	1	4	14		One Sided, Trunk Decay, Branch Decay, Mechanical Damage	Yes	Trunk
286	11	maple, red	Acer rubrum	73	Good	1	5	17		One Sided	Yes	Trunk
287	11,11	maple, red	Acer rubrum	69	Fair	2	10	23	Root 2 in dbh	One Sided, Small DW (1-2"), Co-Dominant Stems, Girdling Roots	Yes	Trunk
288	8	maple, red	Acer rubrum	69	Fair	1	4	12		One Sided, Broken Limbs	Yes	Trunk
290	6,11	maple, red	Acer rubrum	67	Fair	2	8	19	Root ~3 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Vines, Mechanical Damage, Girdling Roots	Yes	Trunk
291	8	maple, red	Acer rubrum	59	Fair	1	4	12	Root ~ 1 in dbh	Large DW (3"+), Small DW (1-2"), Broken Limbs, Mechanical Damage, Girdling Roots	Yes	Trunk
292	12	maple, red	Acer rubrum	73	Good	1	5	18		One Sided	Yes	Trunk
332	16	ash, white	Fraxinus americana	0	Dead	1	7	24			Yes	Root Zone
336	19	hickory, mockernut	Carya tomentosa	72	Good	1	9	29		Full Crown, Trunk Decay	Yes	Root Zone
337	10	hickory, mockernut	Carya tomentosa	67	Fair	1	5	15		Full Crown, Small DW (1-2"), Trunk Decay, Broken Limbs, Mechanical Damage	Yes	Root Zone
338	20	maple, red	Acer rubrum	81	Good	1	9	30		One Sided	Yes	Trunk
340	11	maple, red	Acer rubrum	44	Poor	1	5	17		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Stressed, Mechanical Damage	Yes	Trunk
341	13	maple, red	Acer rubrum	75	Good	1	6	20		One Sided, Broken Limbs	Yes	Trunk
347	6	cherry, black	Prunus serotina	50	Fair	1	3	9		Narrow Crown, Small DW (1-2"), Branch Decay	Yes	Trunk
348	7	maple, red	Acer rubrum	67	Fair	1	3	11		Narrow Crown, Co-Dominant Stems, Suppressed	Yes	Trunk
349	42	oak, black	Quercus velutina	63	Fair	1	19	63		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone

Impacts - Option 1

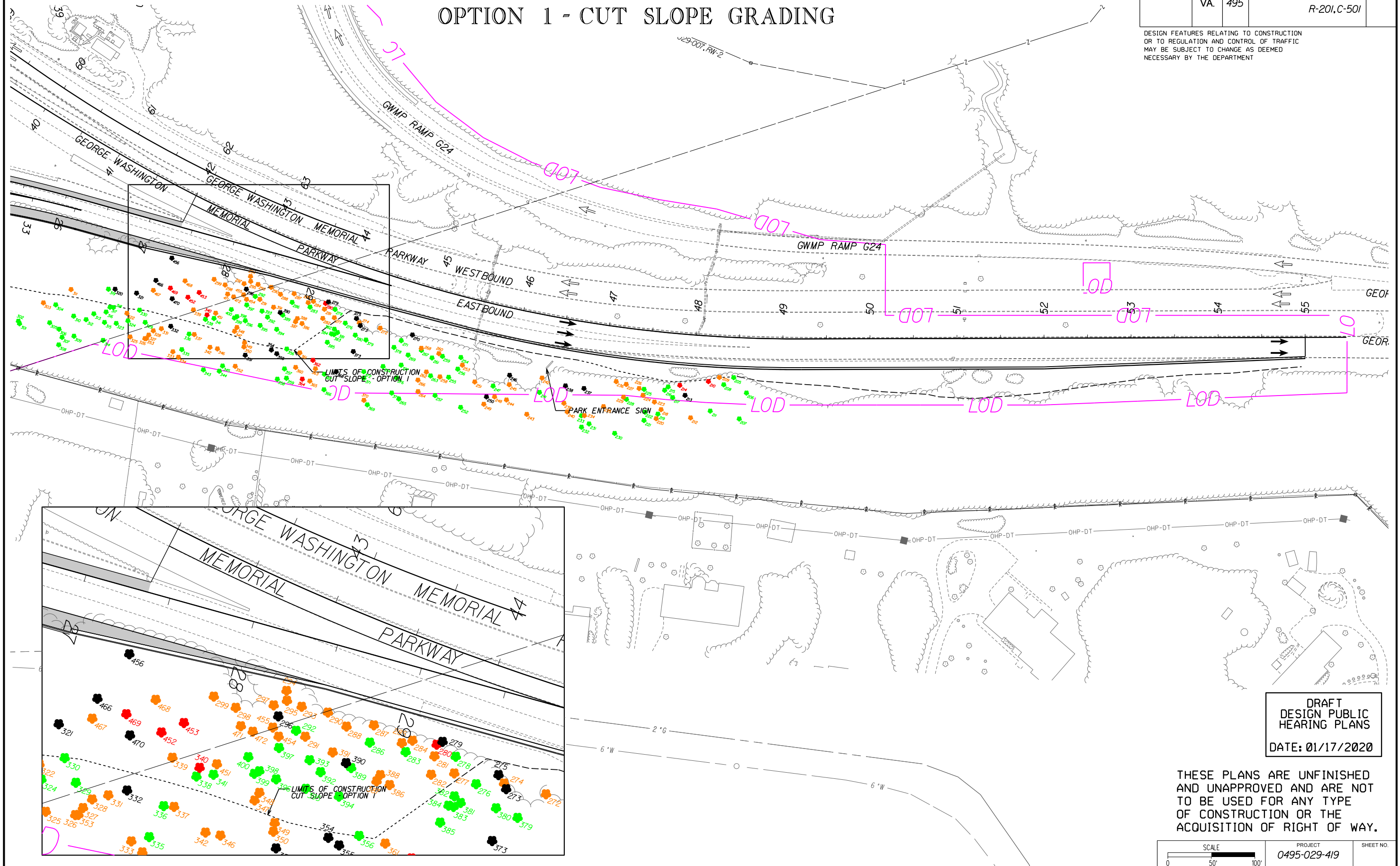
Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 1?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)				
350	17	oak, white	Quercus alba	66	Fair	1	8	26		One Sided, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Root Zone
351	23	oak, black	Quercus velutina	0	Dead	1	10	35			Yes	Root Zone
354	20	oak, white	Quercus alba	0	Dead	1	9	30			Yes	Root Zone
355	26	oak, white	Quercus alba	0	Dead	1	12	39			Yes	Root Zone
356	39	oak, black	Quercus velutina	70	Good	1	18	59		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Mechanical Damage	Yes	Trunk
361	6,3	maple, red	Acer rubrum	50	Fair	2	4	10		Narrow Crown, Small DW (1-2"), Trunk Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Mechanical Damage	Yes	Root Zone
363	28	tuliptree	Liriodendron tulipifera	69	Fair	1	13	42	3" GR	One Sided, Basal Decay, Girdling Roots	Yes	Root Zone
381	8	tuliptree	Liriodendron tulipifera	75	Good	1	4	12		Suppressed	Yes	Potentially Root Zone
382	7,3	maple, red	Acer rubrum	75	Good	2	5	11		Narrow Crown	Yes	Root Zone
383	17	tuliptree	Liriodendron tulipifera	75	Good	1	8	26		One Sided	Yes	Root Zone
384	8	maple, red	Acer rubrum	72	Good	1	4	12		One Sided, Small DW (1-2"), Basal Decay, Branch Decay, Mechanical Damage	Yes	Root Zone
385	12	maple, red	Acer rubrum	75	Good	1	5	18		Narrow Crown	Yes	Root Zone
386	17	tuliptree	Liriodendron tulipifera	69	Fair	1	8	26		Narrow Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Trunk
387	6	maple, red	Acer rubrum	50	Fair	1	3	9		One Sided	Yes	Trunk
388	7	maple, red	Acer rubrum	50	Fair	1	3	11		One Sided, Suppressed	Yes	Trunk
389	8,8	maple, red	Acer rubrum	75	Good	2	7	17		One Sided, Co-Dominant Stems, Suppressed	Yes	Trunk
390	7	maple, red	Acer rubrum	0	Dead	1	3	11			Yes	Trunk
391	7	maple, red	Acer rubrum	50	Fair	1	3	11		One Sided, Trunk Decay, Co-Dominant Stems	Yes	Trunk
392	7	maple, red	Acer rubrum	75	Good	1	3	11		One Sided, Trunk Decay, Co-Dominant Stems	Yes	Trunk
393	15	tuliptree	Liriodendron tulipifera	72	Good	1	7	23		One Sided	Yes	Trunk
394	13	oak, chestnut	Quercus montana	75	Good	1	6	20			Yes	Trunk
395	7	maple, red	Acer rubrum	75	Good	1	3	11		Narrow Crown	Yes	Trunk
396	10	tuliptree	Liriodendron tulipifera	75	Good	1	5	15		Narrow Crown	Yes	Trunk
397	14	maple, red	Acer rubrum	72	Good	1	6	21		One Sided, Small DW (1-2"), Suppressed	Yes	Trunk
398	8	maple, red	Acer rubrum	70	Good	1	4	12		One Sided, Co-Dominant Stems, Suppressed	Yes	Trunk
399	8	maple, red	Acer rubrum	73	Good	1	4	12		Narrow Crown, Suppressed	Yes	Trunk
400	25	tuliptree	Liriodendron tulipifera	75	Good	1	11	38		One Sided	Yes	Trunk
451	12,6	maple, red	Acer rubrum	50	Fair	2	8	20	DBH 6 = dead; adj Tree 340 limbs broken on tree	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs	Yes	Trunk
454	8	tuliptree	Liriodendron tulipifera	59	Fair	1	4	12	Roots 1 in dbh and less	One Sided, Suppressed, Girdling Roots	Yes	Trunk

PROJECT MANAGER: Jim Steinbiller
SURVEYED BY, DATE: Blac Associates, 2019-06-17
DESIGN BY: HDR Engineering
SUBSURFACE UTILITY BY, DATE: N/A

GEORGE WASHINGTON MEMORIAL PARKWAY ENTRANCE OPTION 1 - CUT SLOPE GRADING

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	495	0495-029-419 R-201, C-501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



**DRAFT
DESIGN PUBLIC
HEARING PLANS**
DATE: 01/17/2020

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 50' 100'	PROJECT 0495-029-419	SHEET NO.
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Impacts - Option 2

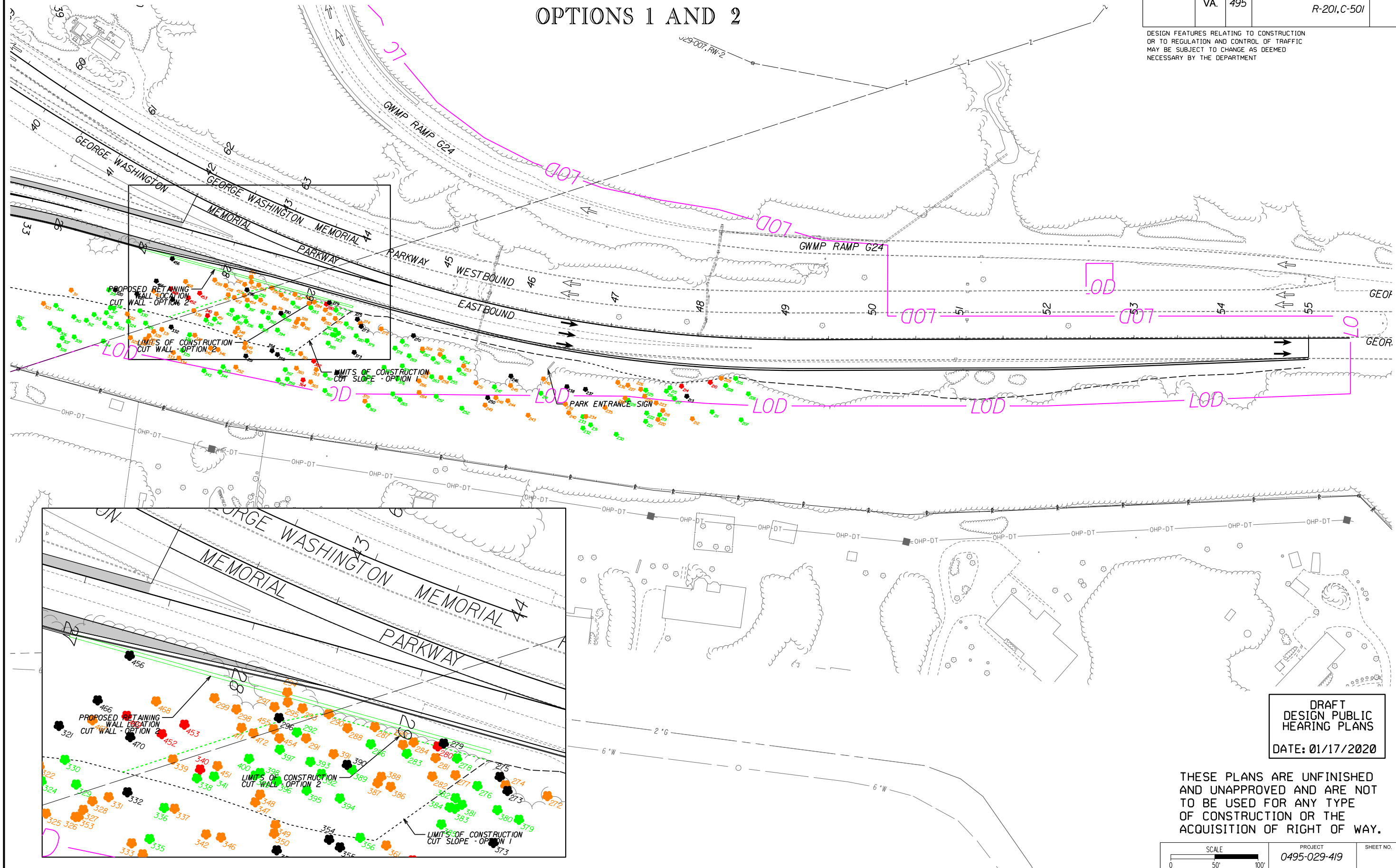
Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 2?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)				
272	16	tuliptree	Liriodendron tulipifera	66	Fair	1	7	24		One Sided, Large DW (3"+), Trunk Decay, Basal Decay, Broken Limbs, Mechanical Damage	Yes	Root Zone
273	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			Yes	Potentially Root Zone
274	10	tree of heaven	Ailanthus altissima	50	Fair	1	5	15		Trunk Decay, Branch Decay, Broken Limbs, Vines	Yes	Root Zone
275	10	ash, spp.	Fraxinus spp.	0	Dead	1	5	15		Vines	Yes	Root Zone
276	21	tuliptree	Liriodendron tulipifera	72	Good	1	9	32			Yes	Root Zone
277	14	maple, red	Acer rubrum	59	Fair	1	6	21		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs, Stressed, Mechanical Damage, Serious Decline	Yes	Root Zone
278	13	tuliptree	Liriodendron tulipifera	72	Good	1	6	20		One Sided, Branch Decay, Broken Limbs	Yes	Root Zone
279	10	locust, black	Robinia pseudoacacia	0	Dead	1	5	15			Yes	Trunk
280	9	locust, black	Robinia pseudoacacia	45	Poor	1	4	14	Topped	Stressed, Vines, Serious Decline	Yes	Trunk
281	12	beech, American	Fagus grandifolia	69	Fair	1	5	18		One Sided, Included Bark/Weak Union	Yes	Root Zone
282	13	maple, red	Acer rubrum	69	Fair	1	6	20		Basal Decay	Yes	Root Zone
283	13	maple, red	Acer rubrum	72	Good	1	6	20			Yes	Root Zone
284	13	maple, red	Acer rubrum	67	Fair	1	6	20		One Sided, Branch Decay	Yes	Root Zone
285	9	maple, red	Acer rubrum	69	Fair	1	4	14		One Sided, Trunk Decay, Branch Decay, Mechanical Damage	Yes	Root Zone
286	11	maple, red	Acer rubrum	73	Good	1	5	17		One Sided	Yes	Root Zone
287	11,11	maple, red	Acer rubrum	69	Fair	2	10	23	Root 2 in dbh	One Sided, Small DW (1-2"), Co-Dominant Stems, Girdling Roots	Yes	Trunk
288	8	maple, red	Acer rubrum	69	Fair	1	4	12		One Sided, Broken Limbs	Yes	Root Zone
290	6,11	maple, red	Acer rubrum	67	Fair	2	8	19	Root ~3 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Vines, Mechanical Damage, Girdling Roots	Yes	Trunk
291	8	maple, red	Acer rubrum	59	Fair	1	4	12	Root ~ 1 in dbh	Large DW (3"+), Small DW (1-2"), Broken Limbs, Mechanical Damage, Girdling Roots	Yes	Potentially Root Zone
292	12	maple, red	Acer rubrum	73	Good	1	5	18		One Sided	Yes	Root Zone
332	16	ash, white	Fraxinus americana	0	Dead	1	7	24			Yes	Root Zone
336	19	hickory, mockernut	Carya tomentosa	72	Good	1	9	29		Full Crown, Trunk Decay	Yes	Root Zone
338	20	maple, red	Acer rubrum	81	Good	1	9	30		One Sided	Yes	Root Zone
340	11	maple, red	Acer rubrum	44	Poor	1	5	17		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Stressed, Mechanical Damage	Yes	Root Zone
341	13	maple, red	Acer rubrum	75	Good	1	6	20		One Sided, Broken Limbs	Yes	Root Zone
349	42	oak, black	Quercus velutina	63	Fair	1	19	63		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone
356	39	oak, black	Quercus velutina	70	Good	1	18	59		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Mechanical Damage	Yes	Potentially Root Zone
386	17	tuliptree	Liriodendron tulipifera	69	Fair	1	8	26		Narrow Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Potentially Root Zone
393	15	tuliptree	Liriodendron tulipifera	72	Good	1	7	23		One Sided	Yes	Root Zone
397	14	maple, red	Acer rubrum	72	Good	1	6	21		One Sided, Small DW (1-2"), Suppressed	Yes	Root Zone
400	25	tuliptree	Liriodendron tulipifera	75	Good	1	11	38		One Sided	Yes	Root Zone
451	12,6	maple, red	Acer rubrum	50	Fair	2	8	20	DBH 6 = dead; adj Tree 340 limbs broken on tree	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs	Yes	Root Zone
454	8	tuliptree	Liriodendron tulipifera	59	Fair	1	4	12	Roots 1 in dbh and less	One Sided, Suppressed, Girdling Roots	Yes	Root Zone

PROJECT MANAGER: Jim Steinbiber
SURVEYED BY, DATE: Bice Associates, 2019-06-17
DESIGN BY: HDR Engineering
SUBSURFACE UTILITY BY, DATE: N/A

GEORGE WASHINGTON MEMORIAL PARKWAY ENTRANCE OPTIONS 1 AND 2

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	495	0495-029-419 R-201, C-501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



**DRAFT
DESIGN PUBLIC
HEARING PLANS**
DATE: 01/17/2020

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 50' 100'	PROJECT 0495-029-419	SHEET NO.
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Impacts - Option 3

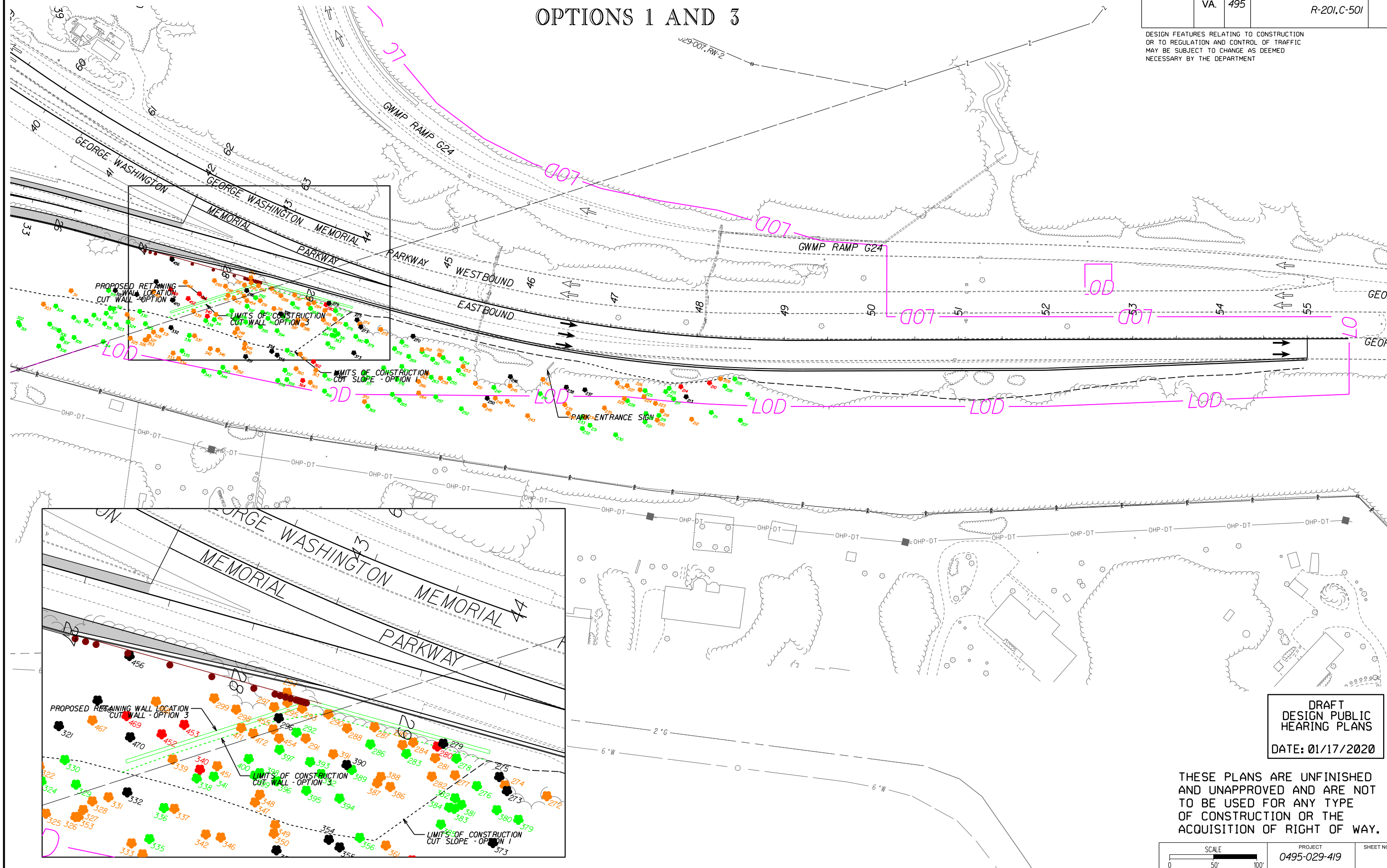
Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 3?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)				
272	16	tuliptree	Liriodendron tulipifera	66	Fair	1	7	24		One Sided, Large DW (3"+), Trunk Decay, Basal Decay, Broken Limbs, Mechanical Damage	Yes	Root Zone
273	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			Yes	Potentially Root Zone
274	10	tree of heaven	Ailanthus altissima	50	Fair	1	5	15		Trunk Decay, Branch Decay, Broken Limbs, Vines	Yes	Root Zone
275	10	ash, spp.	Fraxinus spp.	0	Dead	1	5	15		Vines	Yes	Root Zone
276	21	tuliptree	Liriodendron tulipifera	72	Good	1	9	32			Yes	Root Zone
277	14	maple, red	Acer rubrum	59	Fair	1	6	21		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs, Stressed, Mechanical Damage, Serious Decline	Yes	Root Zone
278	13	tuliptree	Liriodendron tulipifera	72	Good	1	6	20		One Sided, Branch Decay, Broken Limbs	Yes	Root Zone
279	10	locust, black	Robinia pseudoacacia	0	Dead	1	5	15			Yes	Trunk
280	9	locust, black	Robinia pseudoacacia	45	Poor	1	4	14	Topped	Stressed, Vines, Serious Decline	Yes	Trunk
281	12	beech, American	Fagus grandifolia	69	Fair	1	5	18		One Sided, Included Bark/Weak Union	Yes	Root Zone
282	13	maple, red	Acer rubrum	69	Fair	1	6	20		Basal Decay	Yes	Root Zone
283	13	maple, red	Acer rubrum	72	Good	1	6	20			Yes	Root Zone
284	13	maple, red	Acer rubrum	67	Fair	1	6	20		One Sided, Branch Decay	Yes	Root Zone
285	9	maple, red	Acer rubrum	69	Fair	1	4	14		One Sided, Trunk Decay, Branch Decay, Mechanical Damage	Yes	Root Zone
286	11	maple, red	Acer rubrum	73	Good	1	5	17		One Sided	Yes	Root Zone
287	11,11	maple, red	Acer rubrum	69	Fair	2	10	23	Root 2 in dbh	One Sided, Small DW (1-2"), Co-Dominant Stems, Girdling Roots	Yes	Trunk
288	8	maple, red	Acer rubrum	69	Fair	1	4	12		One Sided, Broken Limbs	Yes	Root Zone
290	6,11	maple, red	Acer rubrum	67	Fair	2	8	19	Root ~3 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Vines, Mechanical Damage, Girdling Roots	Yes	Trunk
291	8	maple, red	Acer rubrum	59	Fair	1	4	12	Root ~ 1 in dbh	Large DW (3"+), Small DW (1-2"), Broken Limbs, Mechanical Damage, Girdling Roots	Yes	Potentially Root Zone
292	12	maple, red	Acer rubrum	73	Good	1	5	18		One Sided	Yes	Root Zone
332	16	ash, white	Fraxinus americana	0	Dead	1	7	24			Yes	Root Zone
336	19	hickory, mockernut	Carya tomentosa	72	Good	1	9	29		Full Crown, Trunk Decay	Yes	Root Zone
338	20	maple, red	Acer rubrum	81	Good	1	9	30		One Sided	Yes	Root Zone
340	11	maple, red	Acer rubrum	44	Poor	1	5	17		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Stressed, Mechanical Damage	Yes	Root Zone
341	13	maple, red	Acer rubrum	75	Good	1	6	20		One Sided, Broken Limbs	Yes	Root Zone
349	42	oak, black	Quercus velutina	63	Fair	1	19	63		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone
356	39	oak, black	Quercus velutina	70	Good	1	18	59		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Mechanical Damage	Yes	Potentially Root Zone
386	17	tuliptree	Liriodendron tulipifera	69	Fair	1	8	26		Narrow Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Potentially Root Zone
393	15	tuliptree	Liriodendron tulipifera	72	Good	1	7	23		One Sided	Yes	Potentially Root Zone
397	14	maple, red	Acer rubrum	72	Good	1	6	21		One Sided, Small DW (1-2"), Suppressed	Yes	Root Zone
400	25	tuliptree	Liriodendron tulipifera	75	Good	1	11	38		One Sided	Yes	Root Zone
451	12,6	maple, red	Acer rubrum	50	Fair	2	8	20	DBH 6 = dead; adj Tree 340 limbs broken on tree	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs	Yes	Root Zone
454	8	tuliptree	Liriodendron tulipifera	59	Fair	1	4	12	Roots 1 in dbh and less	One Sided, Suppressed, Girdling Roots	Yes	Root Zone

PROJECT MANAGER: Jim Steinbiller
SURVEYED BY, DATE: Blac Associates, 2019-06-17
DESIGN BY: HDR Engineering
SUBSURFACE UTILITY BY, DATE: NCA

GEORGE WASHINGTON MEMORIAL PARKWAY ENTRANCE OPTIONS 1 AND 3

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	495	0495-029-419 R-201, C-501	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



**DRAFT
DESIGN PUBLIC
HEARING PLANS**
DATE: 01/17/2020

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

SCALE 0 50' 100'	PROJECT 0495-029-419	SHEET NO.
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Impacts - Option 4

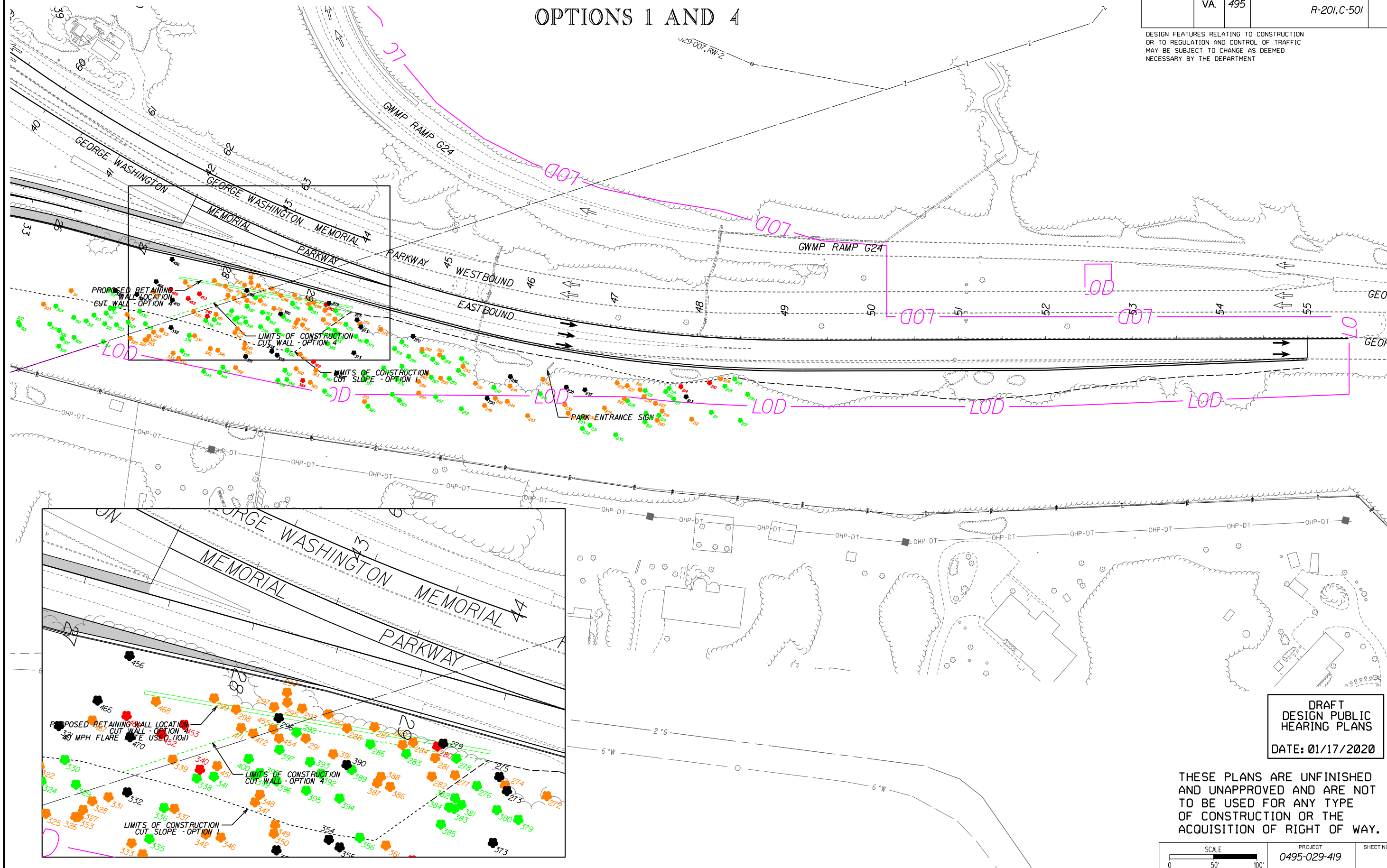
Tree #	DBH	Common Name	Botanical Name	Condition Rating %	Condition Rating	Number of Stems	SCRZ	CRZ	Additional Notes	Condition Notes	Tree on NPS Property?	Tree Impacted by Option 4?
	(Diameter at 4.5 feet above grade)						Structural Critical Root Zone (radius) in Feet	Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)				
272	16	tuliptree	Liriodendron tulipifera	66	Fair	1	7	24		One Sided, Large DW (3"+), Trunk Decay, Basal Decay, Broken Limbs, Mechanical Damage	Yes	Root Zone
273	9	ash, spp.	Fraxinus spp.	0	Dead	1	4	14			Yes	Potentially Root Zone
274	10	tree of heaven	Ailanthus altissima	50	Fair	1	5	15		Trunk Decay, Branch Decay, Broken Limbs, Vines	Yes	Root Zone
275	10	ash, spp.	Fraxinus spp.	0	Dead	1	5	15		Vines	Yes	Root Zone
276	21	tuliptree	Liriodendron tulipifera	72	Good	1	9	32			Yes	Root Zone
277	14	maple, red	Acer rubrum	59	Fair	1	6	21		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs, Stressed, Mechanical Damage, Serious Decline	Yes	Root Zone
278	13	tuliptree	Liriodendron tulipifera	72	Good	1	6	20		One Sided, Branch Decay, Broken Limbs	Yes	Root Zone
279	10	locust, black	Robinia pseudoacacia	0	Dead	1	5	15			Yes	Trunk
280	9	locust, black	Robinia pseudoacacia	45	Poor	1	4	14	Topped	Stressed, Vines, Serious Decline	Yes	Trunk
281	12	beech, American	Fagus grandifolia	69	Fair	1	5	18		One Sided, Included Bark/Weak Union	Yes	Root Zone
282	13	maple, red	Acer rubrum	69	Fair	1	6	20		Basal Decay	Yes	Root Zone
283	13	maple, red	Acer rubrum	72	Good	1	6	20			Yes	Root Zone
284	13	maple, red	Acer rubrum	67	Fair	1	6	20		One Sided, Branch Decay	Yes	Trunk
285	9	maple, red	Acer rubrum	69	Fair	1	4	14		One Sided, Trunk Decay, Branch Decay, Mechanical Damage	Yes	Trunk
286	11	maple, red	Acer rubrum	73	Good	1	5	17		One Sided	Yes	Root Zone
287	11,11	maple, red	Acer rubrum	69	Fair	2	10	23	Root 2 in dbh	One Sided, Small DW (1-2"), Co-Dominant Stems, Girdling Roots	Yes	Trunk
288	8	maple, red	Acer rubrum	69	Fair	1	4	12		One Sided, Broken Limbs	Yes	Trunk
290	6,11	maple, red	Acer rubrum	67	Fair	2	8	19	Root ~3 in dbh	One Sided, Large DW (3"+), Small DW (1-2"), Co-Dominant Stems, Vines, Mechanical Damage, Girdling Roots	Yes	Trunk
291	8	maple, red	Acer rubrum	59	Fair	1	4	12	Root ~ 1 in dbh	Large DW (3"+), Small DW (1-2"), Broken Limbs, Mechanical Damage, Girdling Roots	Yes	Root Zone
292	12	maple, red	Acer rubrum	73	Good	1	5	18		One Sided	Yes	Root Zone
332	16	ash, white	Fraxinus americana	0	Dead	1	7	24			Yes	Root Zone
336	19	hickory, mockernut	Carya tomentosa	72	Good	1	9	29		Full Crown, Trunk Decay	Yes	Root Zone
338	20	maple, red	Acer rubrum	81	Good	1	9	30		One Sided	Yes	Root Zone
340	11	maple, red	Acer rubrum	44	Poor	1	5	17		One Sided, Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Co-Dominant Stems, Suppressed, Stressed, Mechanical Damage	Yes	Root Zone
341	13	maple, red	Acer rubrum	75	Good	1	6	20		One Sided, Broken Limbs	Yes	Root Zone
349	42	oak, black	Quercus velutina	63	Fair	1	19	63		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Broken Limbs	Yes	Root Zone
356	39	oak, black	Quercus velutina	70	Good	1	18	59		Full Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Mechanical Damage	Yes	Root Zone
383	17	tuliptree	Liriodendron tulipifera	75	Good	1	8	26		One Sided	Yes	Potentially Root Zone
386	17	tuliptree	Liriodendron tulipifera	69	Fair	1	8	26		Narrow Crown, Large DW (3"+), Small DW (1-2"), Branch Decay, Suppressed	Yes	Root Zone
389	8,8	maple, red	Acer rubrum	75	Good	2	7	17		One Sided, Co-Dominant Stems, Suppressed	Yes	Potentially Root Zone
390	7	maple, red	Acer rubrum	0	Dead	1	3	11			Yes	Potentially Root Zone
391	7	maple, red	Acer rubrum	50	Fair	1	3	11		One Sided, Trunk Decay, Co-Dominant Stems	Yes	Potentially Root Zone
393	15	tuliptree	Liriodendron tulipifera	72	Good	1	7	23		One Sided	Yes	Root Zone
397	14	maple, red	Acer rubrum	72	Good	1	6	21		One Sided, Small DW (1-2"), Suppressed	Yes	Root Zone
400	25	tuliptree	Liriodendron tulipifera	75	Good	1	11	38		One Sided	Yes	Root Zone
451	12,6	maple, red	Acer rubrum	50	Fair	2	8	20	DBH 6 = dead; adj Tree 340 limbs broken on tree	Large DW (3"+), Small DW (1-2"), Trunk Decay, Basal Decay, Broken Limbs	Yes	Root Zone
454	8	tuliptree	Liriodendron tulipifera	59	Fair	1	4	12	Roots 1 in dbh and less	One Sided, Suppressed, Girdling Roots	Yes	Root Zone

PROJECT MANAGER: Jim Steinbiber
SURVEYED BY, DATE: Blac Associates, 2019-06-17
DESIGN BY: HDR Engineering
SUBSURFACE UTILITY BY, DATE: NCA

GEORGE WASHINGTON MEMORIAL PARKWAY ENTRANCE OPTIONS 1 AND 4

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	495	0495-029-419 R-201, C-501	

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DRAFT
DESIGN PUBLIC
HEARING PLANS
DATE: 01/17/2020

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SCALE 0 50' 100'	PROJECT 0495-029-419	SHEET NO.
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