

36" CRAPE MYRTLE IN EXCELLENT CONDITION. ADJUST SIDEWALK TO PRESERVE THIS TREE AS NECESSARY.



METAL FENCE IS IN CONFLICT WITH THE PROPOSED SIDEWALK LOCATION & TOWN ROW. FENCE NEEDS TO BE RELOCATED AS NEEDED.

1" LEYLAND CYPRESS IN EXCELLENT CONDITION IS CLOSE TO THE PROPOSED SIDEWALK. 1" TREES POSSIBLE TO TRANSPLANT.



15" MULTI-TRUNK EASTERN REDBUDS IN FAIR CONDITION. PRUNING DUE TO OVERHEAD UTILITY LINES. TREES TO BE REMOVED.



SEVERAL 12" LEYLAND CYPRESS ARE IN GOOD CONDITION. HOWEVER IS RIGHT ON THE TOP OF PROPOSED SIDEWALK AND TREES ARE SEVERELY TOPPED DUE TO OVERHEAD UTILITY LINES. THESE TREES SHOULD BE REMOVED



16" MULTI-STEM RIVER BIRCH IN GOOD CONDITION IS IN CONFLICT WITH PROPOSED SIDEWALK. THIS TREE IS TO BE REMOVED.



13" PIN OAK IN GOOD CONDITION. SIDE WALK WOULD AFFECT THE CRITICAL ROOT ZONE OF THIS TREE AND HENCE SIDEWALK PROPOSED CLOSE TO CURB TO PRESERVE THIS TREE.



MULTI-STEM 12" CRAPE MYRTLE IS CLOSE TO THE PROPOSED SIDEWALK TO BE PRESERVED. SOME PRUNING MAY BE REQUIRED ON STREET SIDE TO MAINTAIN CLEARANCE FOR SIDEWALK.



ELECTRIC POLE WITH GUY WIRE, ADJUST SIDEWALK WIDTH AS NECESSARY.

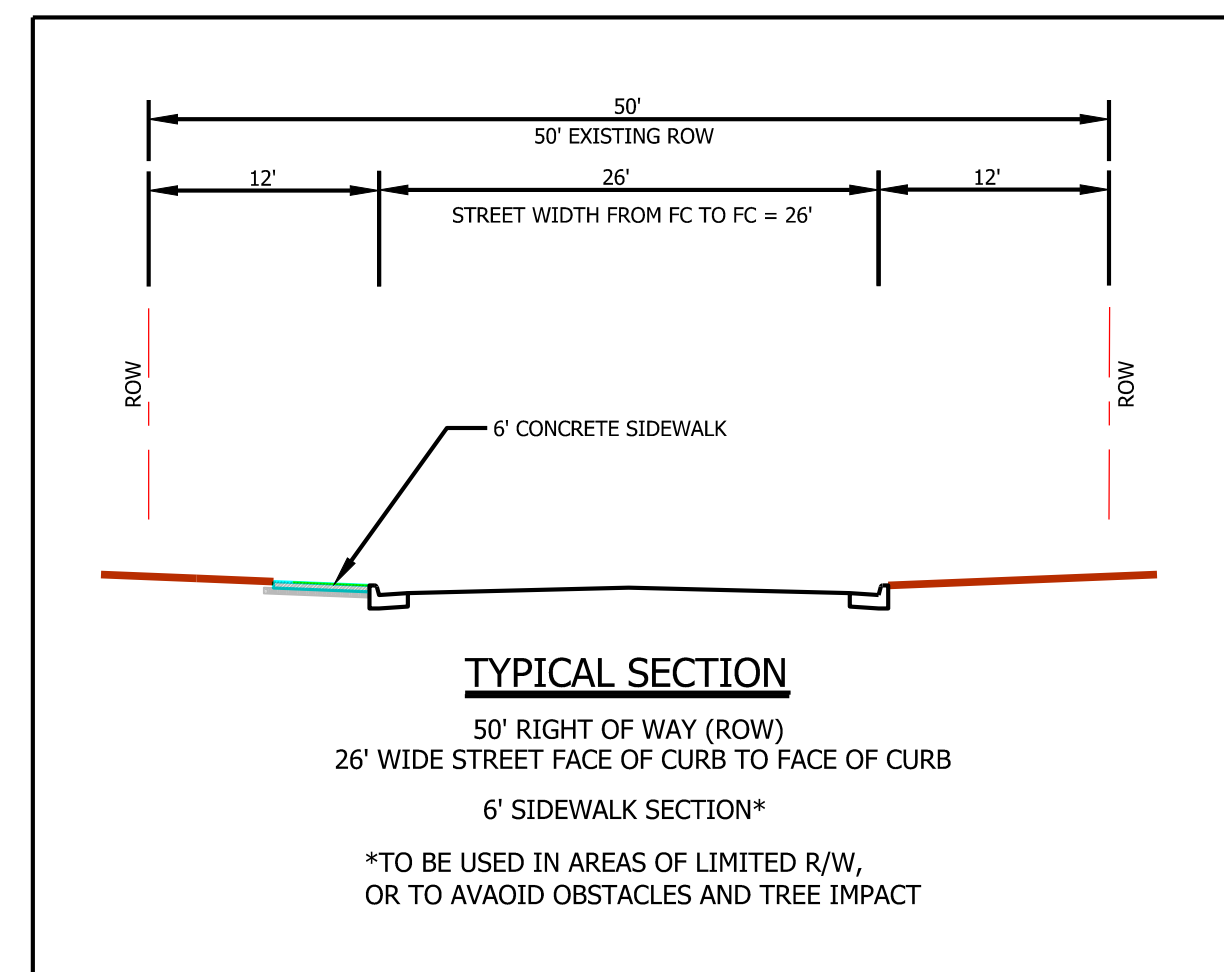
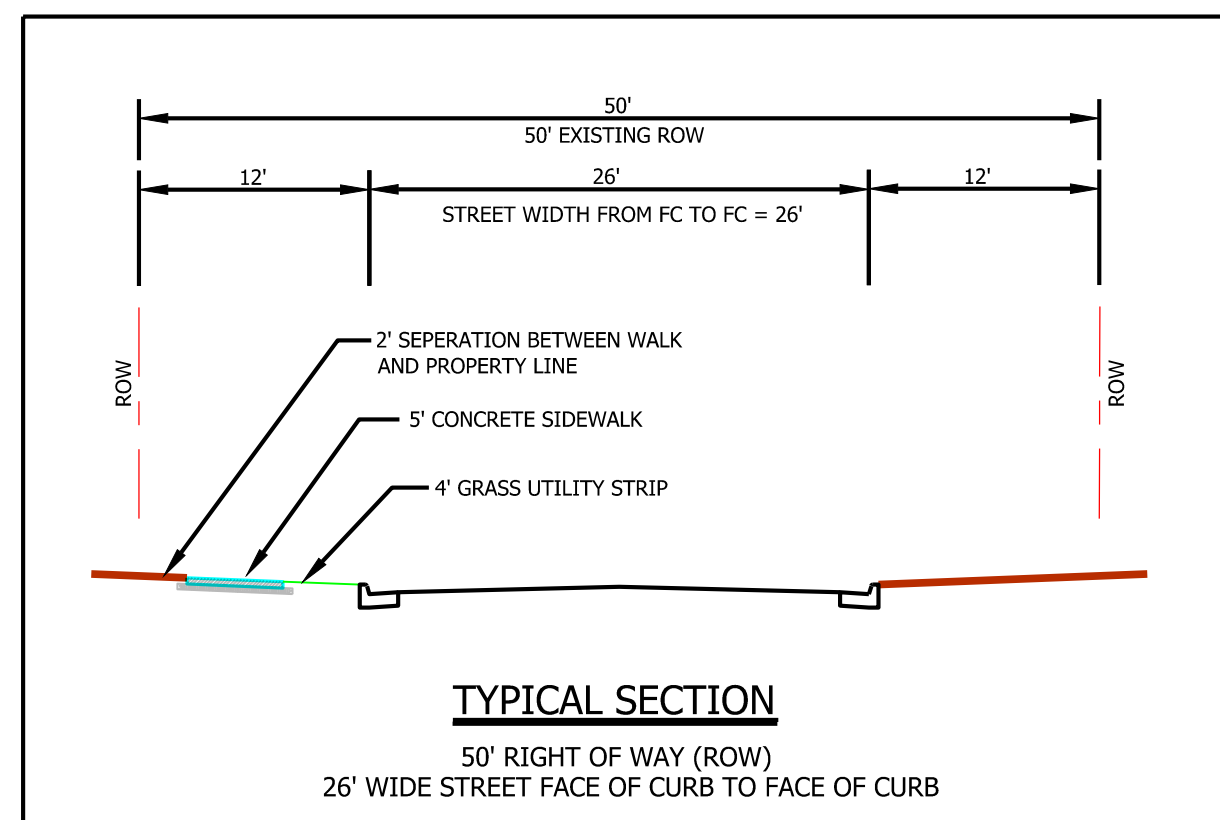


12" EASTERN RED CEDAR AWAY FROM SIDEWALK TO BE PRESERVED. BRANCHES NEEDS TO BE PRUNED AWAY FROM PROPOSED SIDEWALK FOR PROPER CLEARANCE



PROPOSED CG-12 RAMP THAT WILL TIE WITH FUTURE ORIN STREET SE SIDEWALK

SIDE WALK TO BE TIED IN WITH THE CG-12 RAMP PROPOSED WITH THE ALMA STREET SE PROJECT AND PEDESTRIAN WOULD BE DIRECTED TO OTHER SIDE OF DELANO STREET SE TO ALLOW PASSAGE TOWARDS TO THE VIENNA PARK AND TRAIL.



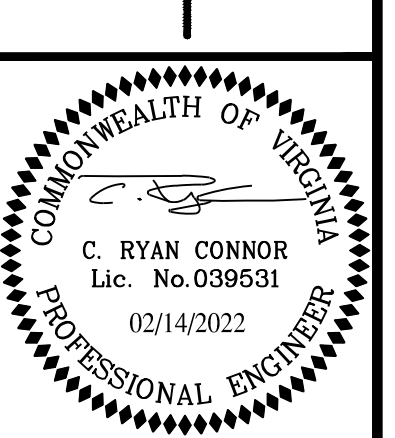
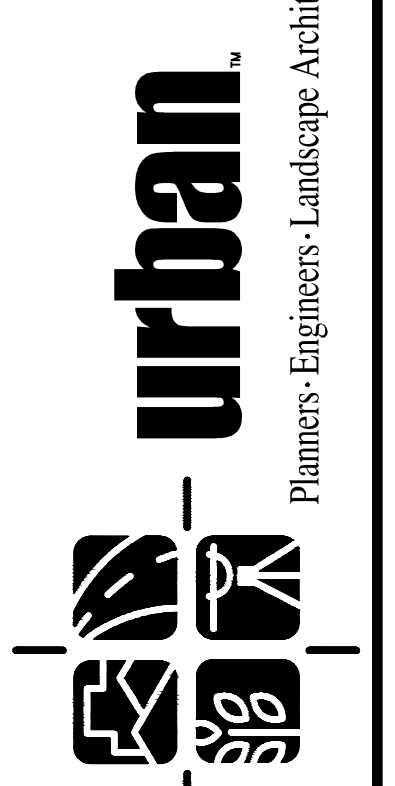
**CONCEPT 1**

SIDEWALK ALONG EVEN SIDE ADDRESS OF DELANO DRIVE SE. THE SIDEWALK WILL EXTEND FROM THE ECHOL'S ST SE INTERSECTION TO THE END OF THE DELANO DRIVE SE AND WILL CONNECT WITH THE EXISTING SIDEWALK ALONG ECHOLS STREET AND ONGOING SIDEWALK IMPROVEMENT AT ALMA STREET. THE CONCEPT INCLUDES THE SIDEWALK AND ADA RAMPS AT INTERSECTION WITH ORIN STREET SE. THIS WILL ALLOW THE PEDESTRIAN ACCESS TO THE WILDWOOD PARK, ECHOLE'S STREET, AND TO ALMA STREET.

NO.	DATE	DESCRIPTION	REVIEWED	DATE

PLAN DATE  
01-25-2022  
02-14-2022

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CONCEPT 1  
DELANO DRIVE SE  
SIDEWALK STUDY  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: JAN, 2022  
SCALE: 1"=30'  
C.I. N/A

SHEET  
1  
OF  
4  
FILE No.  
RP-2529

PROPOSE SIDEWALK BEHIND THE EX. ELECTRIC POLE AND ADJUST THE WIDTH OF SIDEWALK TO MAKE TO BE AWAY FROM GUY WIRE AS NECESSARY MEETING ADA WIDTH REQUIREMENTS



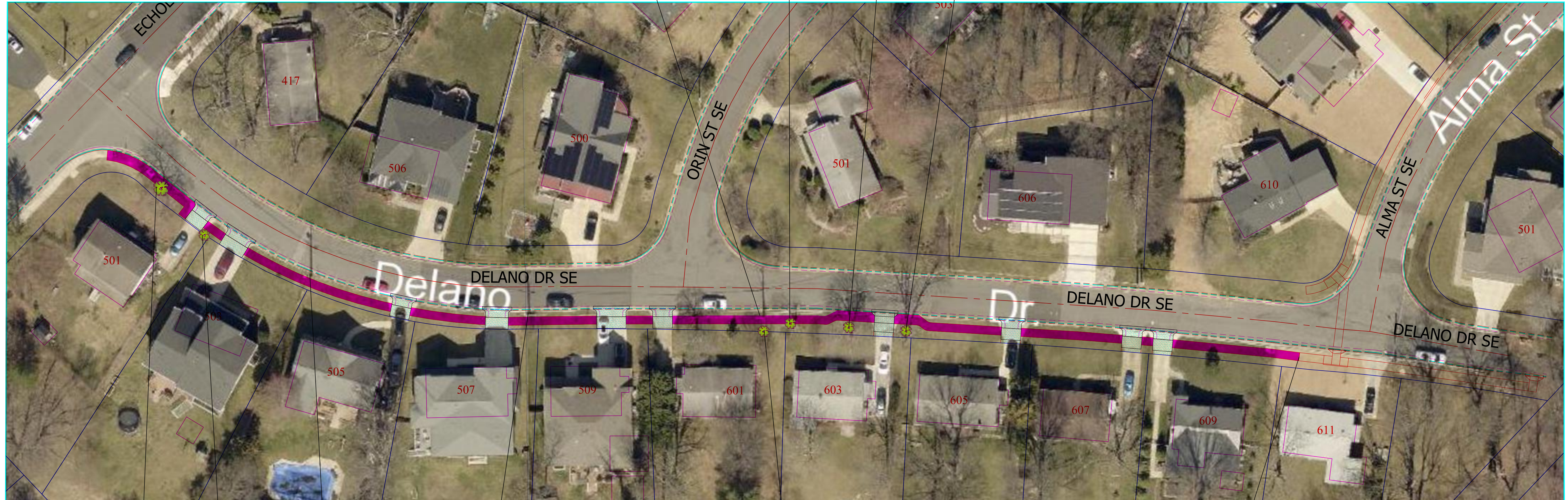
13" EASTERN REDBUD AT POOR CONDITION WITH ONE SIDED DECAY AT THE BASE OF THE TRUNK IN THE PATH OF SIDE WALK. TREE TO BE REMOVED.



18" RED MAPLE AT GOOD CONDITION WITH SIGNIFICANT PRUNING AT THE STREET SIDE. PROPOSE 6' SIDEWALK CLOSE TO CURB TO REDUCE THE IMPACT TO TREE.



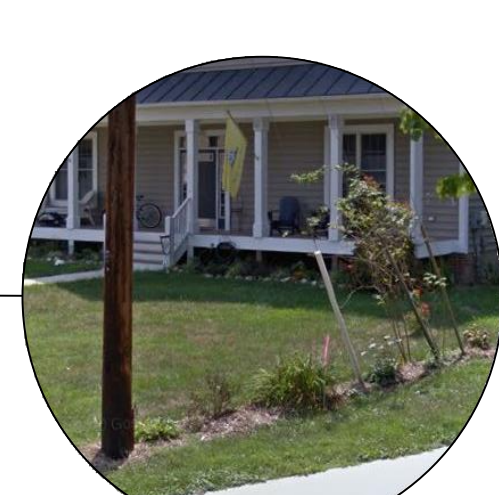
26" RED MAPLE AT FAIR CONDITION WITH SIGNIFICANT PRUNING AT THE STREET SIDE. PROPOSE 6' SIDEWALK CLOSE TO CURB TO REDUCE THE IMPACT TO TREE.



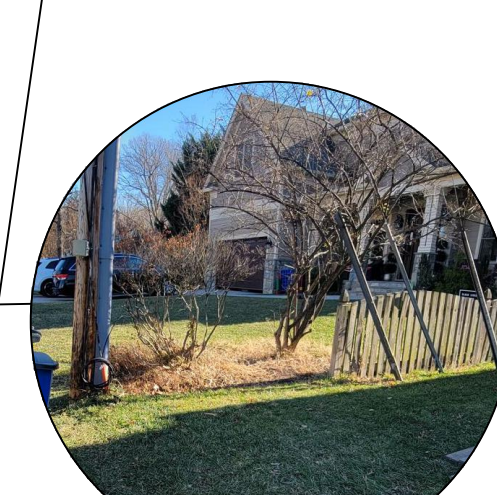
14" RED MAPLE IS CLOSE TO WALK, RECOMMEND PUTTING WALK AT CURB TO MINIMIZE INTRUSION INTO CRITICAL ROOT ZONE.



NEWLY PLANTED TREE IN PATH OF PROPOSED SIDEWALK. POSSIBLE TO TRANSPLANT.



ELECTRIC POLE WITH GUY WIRE, ADJUST SIDEWALK WIDTH AS NECESSARY.

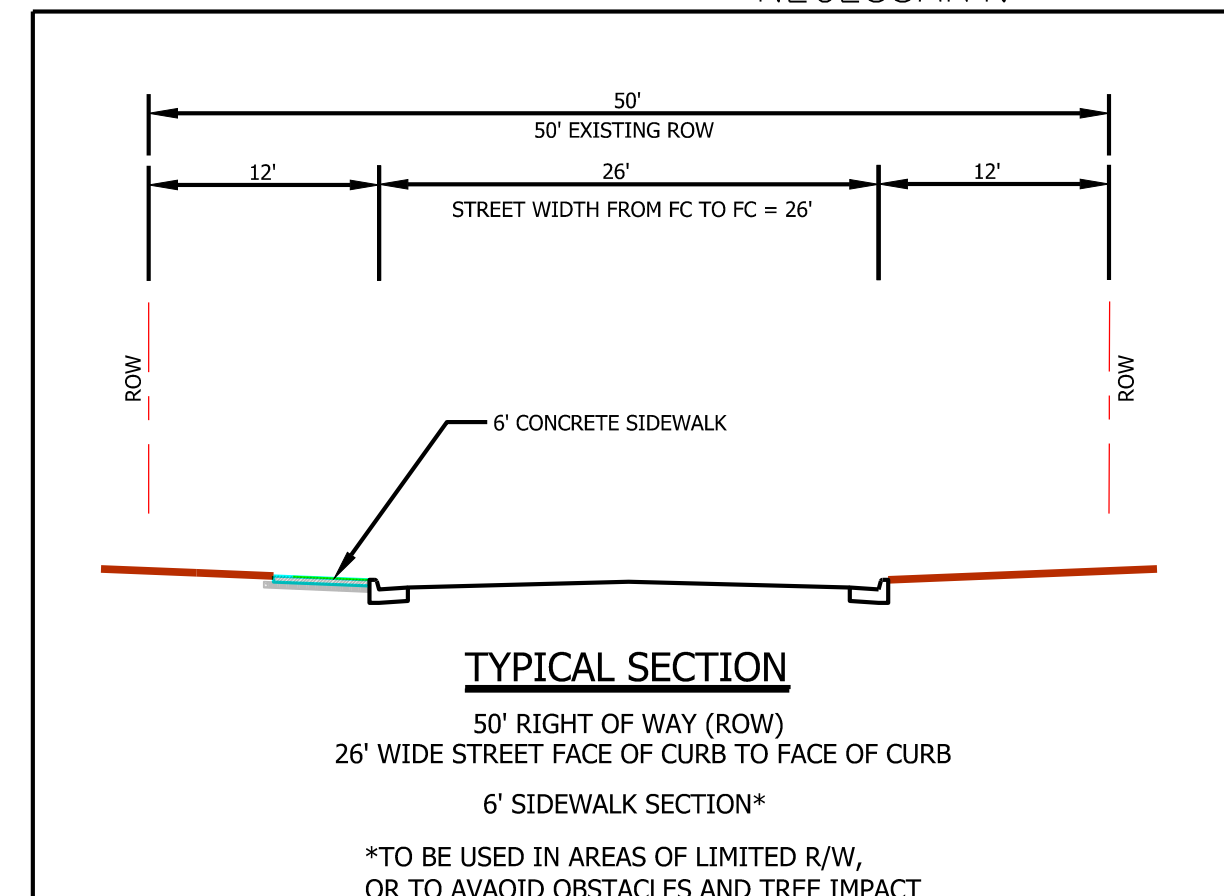
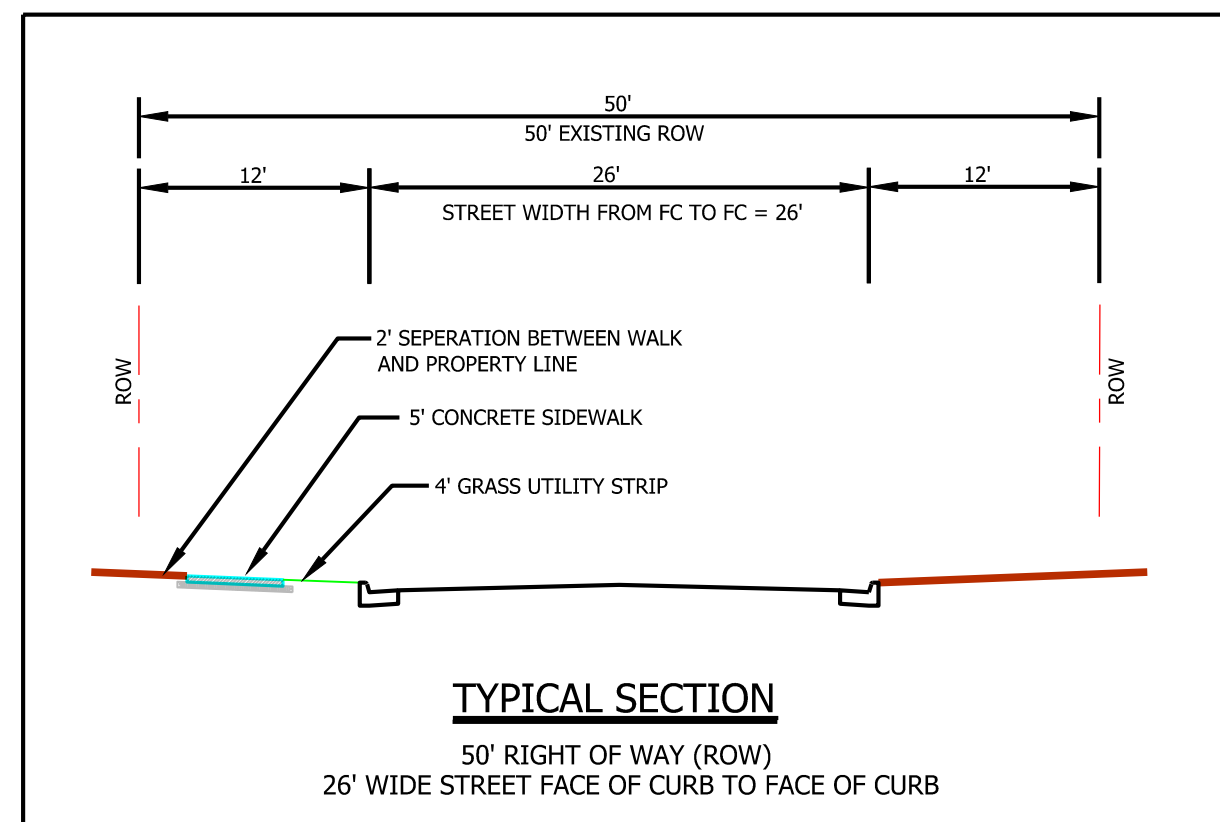


ELECTRIC POLE WITH GUY WIRE, ADJUST SIDEWALK WIDTH AS NECESSARY.



MULTI-STEM, 7 STEMS, BACK FROM POTENTIAL WALK; MANY OTHER SMALLER TREES/SHRUBS IN VICINITY MAY BE AFFECTED.

SIDEWALK AT THIS SIDE OF DELANO STREET IS CURRENTLY PROPOSED WITH ALMA STREET SIDEWALK IMPROVEMENT PROJECT. IF SIDEWALK IS PROPOSED ON THIS SIDE, IT WILL BE TIED IN AT THIS LOCATION.

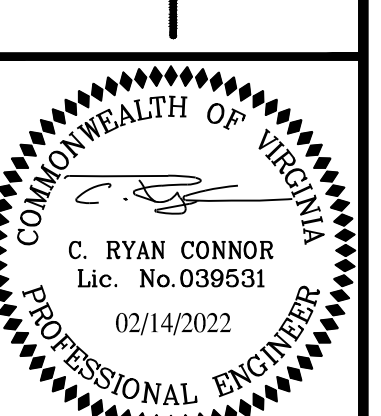


CONCEPT 2  
SIDEWALK ALONG ODD SIDE ADDRESS OF DELANO DRIVE SE. THE SIDEWALK WILL EXTEND FROM THE ECHOLS ST SE INTERSECTION TO THE END OF THE DELANO DRIVE SE AND WILL CONNECT WITH THE EXISTING SIDEWALK ALONG ECHOLS STREET AND ONGOING SIDEWALK IMPROVEMENT AT ALMA STREET. THIS WILL ALLOW PEDESTRIAN ACCESS TO THE WILDWOOD PARK, ECHOLES STREET, AND TO ALMA STREET.

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CONCEPT 2  
DELANO DRIVE SE  
SIDEWALK STUDY  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
C.I. N/A  
DATE: JAN. 2022  
SCALE: 1"=30'

SHEET  
2  
OF  
4  
FILE No.  
RP-2529

**ANALYSIS OF CONCEPT 1- DELANO DR SE**

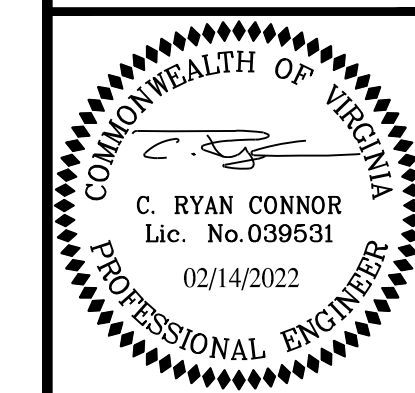
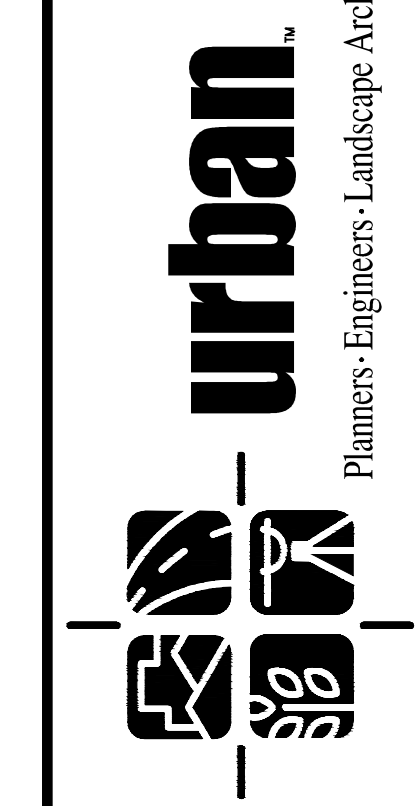
**ANALYSIS OF CONCEPT 2- DELANO DR SE**

DESCRIPTION	SIDEWALK ALONG EVEN SIDE ADDRESS OF DELANO DRIVE SE. THE SIDEWALK WILL EXTEND FROM THE ECHOL'S ST SE INTERSECTION TO THE END OF THE DELANO DRIVE SE AND WILL CONNECT WITH THE EXISTING SIDEWALK ALONG ECHOL'S STREET AND ONGOING SIDEWALK IMPROVEMENT AT ALMA STREET. THE CONCEPT INCLUDES THE SIDEWALK AND ADA RAMPS AT INTERSECTION WITH ORIN STREET SE. THIS WILL ALLOW THE PEDESTRIAN ACCESS TO THE WILDWOOD PARK, ECHOL'S STREET, AND TO ALMA STREET.	SIDEWALK ALONG ODD SIDE ADDRESS OF DELANO DRIVE SE. THE SIDEWALK WILL EXTEND FROM THE ECHOLS ST SE INTERSECTION TO THE END OF THE DELANO DRIVE SE AND WILL CONNECT WITH THE EXISTING SIDEWALK ALONG ECHOL'S STREET AND ONGOING SIDEWALK IMPROVEMENT AT ALMA STREET. THIS WILL ALLOW PEDESTRIAN ACCESS TO THE WILDWOOD PARK, ECHOL'S STREET, AND TO ALMA STREET.
TREE IMPACT	CONCEPT 1 WILL REQUIRE REMOVAL OF APPROXIMATELY SIX TREES NEAR PROPERTIES #500 AND #501 ORRIN ST. THESE TREES APPEAR TO BE WITHIN THE R/W. THERE ARE SEVERAL TREES IN FRONT OF #500 ORRIN THAT ARE SMALLER AND COULD BE CONSIDERED FOR TRANSPLANTATION RATHER THAN REMOVAL. AT SEVERAL LOCATIONS THE SIDEWALK ALIGNMENT HAS BEEN ADJUSTED TO REDUCE IMPACT TO THE EXISTING TREES. THIS CONCEPT HAS MORE TREE REMOVALS THAN CONCEPT 2; HOWEVER, THE TREE REPORT FROM THE ARBORIST NOTES THAT SOME OF THE TREES TO BE REMOVED ARE SEVERELY TOPPED DUE TO OVERHEAD UTILITY PRUNING. ALSO, SEVERAL OF THE TREES ARE "NEWLY PLANTED"- NOT MATURE ESTABLISHED TREES.	CONCEPT 2 REQUIRES THE REMOVAL OF ONE TREE, AND AT LEAST ONE TREE TO BE POTENTIALLY TRANSPLANTED. AN ADDITIONAL APPROXIMATELY THREE LARGER TREES WILL HAVE CRITICAL ROOT ZONES AFFECTED, THE EXTENT DEPENDING ON THE AMOUNT OF GRADING REQUIRED TO INSTALL THE WALK. IN THE AREAS ADJACENT TO THESE LARGER TREES, THE WALK IS RECOMMENDED TO BE LOCATED AT THE BACK OF THE CURB TO MINIMIZE DELETERIOUS EFFECTS.
IMPACTS ON VEGETATION (OTHER THAN TREES)	THERE ARE MINIMAL IMPACTS TO OTHER VEGETATION BY THIS CONSTRUCTION. THIS ANALYSIS IS FOCUSED MORE ON THE POTENTIAL CONSTRUCTION IMPACTS TO LARGER TREES. IF THIS CONCEPT IS PURSUED REPLACEMENT VEGETATION AND POSSIBLY TRANSPLANTATION OF PLANTS/ SHRUBS WILL BE CONSIDERED.	THERE ARE MINIMAL IMPACTS TO OTHER VEGETATION BY THIS CONSTRUCTION. THIS ANALYSIS IS FOCUSED MORE ON THE POTENTIAL CONSTRUCTION IMPACTS TO LARGER TREES. IF THIS CONCEPT IS PURSUED REPLACEMENT VEGETATION AND POSSIBLY TRANSPLANTATION OF PLANTS/ SHRUBS WILL BE CONSIDERED.
GRADING IMPACTS	THE AREA WHERE SIDEWALK WOULD BE BUILT IS RELATIVELY FLAT. THE GRADING APPEARS TO BE MINIMAL. THE CONSTRUCTION LIMITS WILL BE DETERMINED DURING LATER STAGES OF DESIGN IF THIS CONCEPT IS PURSUED.	THE GRADING IMPACTS ON THIS CONCEPT IS MINIMAL AS BEING THE FLAT TOPOGRAPHY WITHIN THE PROPOSED SIDEWALK LOCATIONS. THE CONSTRUCTION LIMITS WILL BE DETERMINED DURING LATER STAGES OF DESIGN IF THIS CONCEPT IS PURSUED.
CONSTRUCTABILITY ISSUE	THERE DO NOT APPEAR TO BE SIGNIFICANT CONSTRUCTABILITY ISSUES WITH THIS CONCEPT. IN THE AREA OF UTILITY POLES THERE IS SUFFICIENT CLEARANCE FOR SIDEWALK BETWEEN THE POLE AND THE GUY WIRES.	THERE DO NOT APPEAR TO BE SIGNIFICANT CONSTRUCTABILITY ISSUES WITH THIS CONCEPT. IN THE AREA OF UTILITY POLES THERE IS SUFFICIENT CLEARANCE FOR SIDEWALK BETWEEN THE POLE AND THE GUY WIRES. CONCEPT 2 HAS MORE DRIVEWAYS THAT WILL NEED TO BE TIED TO THE NEW SIDEWALK.
COST	THE COST OF THIS CONCEPT IS COMPARABLE TO OTHER ROBINSON SIDEWALK PROJECTS. CONCEPT 1 SHOULD BE LESS EXPENSIVE THAN CONCEPT 2 BECAUSE OF THE GREATER NUMBER OF DRIVEWAYS TO BE RECONSTRUCTED WITH CONCEPT 2.	THE COST OF THIS CONCEPT SHOULD BE COMPARABLE TO OTHER ROBINSON SIDEWALK PROJECTS. THIS CONCEPT WOULD BE MORE COSTLY COMPARED TO CONCEPT 1 DUE TO MORE DRIVEWAY APRONS REPLACEMENT.
CONNECTIVITY	CONCEPT 1 HAS MORE CONNECTIVITY TO THE FUTURE PROJECTS AT ALMA STREET AND AT ORRIN STREET.	CONCEPT 2 HAS A MORE DIRECT CONNECTIVITY TO WILDWOOD PARK.
RECOMMENDATION	BECAUSE CONCEPT 1 HAS MORE CONNECTIVITY TO THE FUTURE PROJECTS PLANNED FOR ORRIN AND ALMA, AND BECAUSE IT IS LESS COSTLY, DPW RECOMMENDS CONCEPT 1 OVER CONCEPT 2. HOWEVER, DPW BELIEVES THAT THE DELANO DRIVE SIDEWALK CAN SERVE AS A COLLECTOR ROUTE FOR PEDESTRIANS AS THEY ACCESS ECHOLS STREET TO DESTINATIONS BOTH NORTH AND SOUTH ON ECHOLS AND ACROSS THE WOLFTRAP CREEK. DELANO DRIVE SIDEWALKS, SERVING AS A COLLECTOR TO IMPORTANT ACCESS TO ECHOLS STREET, IS ANTICIPATED TO BE A WELL-TRAVELLED ROUTE. HAVING SIDEWALKS ON BOTH SIDES OF DELANO STREET WILL PROVIDE THE GREATEST FLEXIBILITY FOR PEDESTRIANS. FOR THESE REASONS DPW RECOMMENDS THAT SIDEWALK BE PROVIDED ON BOTH SIDES OF DELANO DRIVE.	

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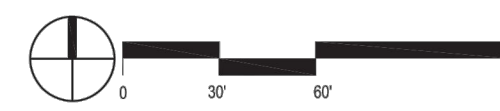
ANALYSIS OF CONCEPT 1 AND CONCEPT 2  
DELANO DRIVE SE  
SIDEWALK STUDY  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: N/A  
DATE: JAN. 2022  
C.I. N/A

SHEET  
3  
OF  
4  
FILE No.  
RP-2529



TREE LOCATIONS FOR INVENTORY BY URBAN - LTD 01/12/2022

DELANO DR SE



Delano Dr. SE  
Vienna, VA

Tree Inventory and Condition Analysis  
Completed: 01/12/2022  
Kevin J. Tankersley, ISA Certified Arborist #MA-5871A

TREE INVENTORY & CONDITION ANALYSIS

TREE NO.	SPECIES		SIZE	DRIP-LINE	CRITICAL ROOT ZONE	STRUCTURAL ROOT ZONE	CONDITION	CONDITION RATING	STATUS	COMMENTS
	Botanical Name	Common Name								
1	<i>Betula nigra</i>	River Birch	16"	10'	16'	8'	Good	62.50		Multi-stem
2	<i>Cupressus x leylandii</i>	Leyland Cypress	12"	5'	12'	6'	Good	68.75		Severely topped due to overhead utility lines
3	<i>Cupressus x leylandii</i>	Leyland Cypress	12"	5'	12'	6'	Good	68.75		Severely topped due to overhead utility lines
4	<i>Cupressus x leylandii</i>	Leyland Cypress	12"	5'	12'	6'	Good	68.75		Severely topped due to overhead utility lines
5	<i>Cercis canadensis</i>	Eastern Redbud	15"	8'	15'	8'	Fair	59.38		Multi-trunk; pruning due to overhead utility lines
6	<i>Cercis canadensis</i>	Eastern Redbud	20"	8'	20'	10'	Good	62.50		Multi-trunk; pruning due to overhead utility lines
7	<i>Cercis canadensis</i>	Eastern Redbud	15"	8'	15'	8'	Good	62.50		Multi-trunk; pruning due to overhead utility lines
10	<i>Cupressus x leylandii</i>	Leyland Cypress	10"	4'	10'	5'	Excellent	84.38		Far enough back from path of walk
11	<i>Cupressus x leylandii</i>	Leyland Cypress	1"	2'	1'	1'	Excellent	93.75		Newly planted; close to proposed sidewalk; will need to be kept pruned
12	<i>Cupressus x leylandii</i>	Leyland Cypress	1"	2'	1'	1'	Excellent	93.75		Newly planted; close to proposed sidewalk; will need to be kept pruned
13	<i>Cupressus x leylandii</i>	Leyland Cypress	1"	2'	1'	1'	Excellent	93.75		Newly planted; close to proposed sidewalk; will need to be kept pruned
14	<i>Betula nigra</i>	River Birch	2"	6'	2'	1'	Excellent	84.38		Young, newly planted; close to path of sidewalk. Critical root zone may be affected.
15	<i>Lagerstroemia indica</i>	Crape Myrtle	36"	12'	36'	18'	Excellent	81.25		Multi-stem, 18 stems; close to proposed sidewalk and curb
16	<i>Acer rubrum</i>	Red Maple	15"	16'	15'	8'	Good	65.63		Co-dominant
17	<i>Acer rubrum</i>	Red Maple	30"	12'	30'	15'	Fair	46.88		Co-dominant; Dieback
18	<i>Quercus alba</i>	White Oak	36"	28'	36'	18'	Good	62.50		Some dieback
19	<i>Acer rubrum</i>	Red Maple	14"	16'	14'	7'	Good	68.75		Some dieback; tree is close to walk, recommend putting walk at curb to minimize intrusion into critical root zone.
20	<i>Acer rubrum</i>	Red Maple	1"	1'	1'	1'	Good	75.00		Young, newly planted tree; in path of proposed sidewalk; possible to transplant
21	<i>Lagerstroemia indica</i>	Crape Myrtle	2"	2'	2'	1'	Good	75.00		Multi-stem, 4 stems; newly planted tree in/near path of sidewalk; possible to transplant
22	<i>Chamaecyparis sp.</i>	Falsecypress	3"	3'	3'	2'	Poor	40.63		Stunted growth; walk grading likely to affect tree.

Delano Dr. SE  
Vienna, VA

Tree Inventory and Condition Analysis  
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TREE INVENTORY & CONDITION ANALYSIS

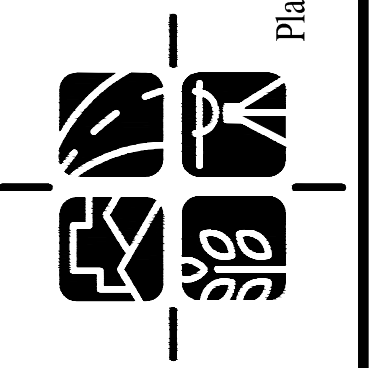
TREE NO.	SPECIES		SIZE	DRIP-LINE	CRITICAL ROOT ZONE	STRUCTURAL ROOT ZONE	CONDITION	CONDITION RATING	STATUS	COMMENTS
	Botanical Name	Common Name								
23	<i>Lagerstroemia indica</i>	Crape Myrtle	11"	6'	11'	5'	Good	75.00		Multi-stem, 7 stems, back from potential walk; many other smaller trees/shrubs in vicinity may be affected.
24	<i>Lagerstroemia indica</i>	Crape Myrtle	21"	7'	21'	11'	Good	75.00		Multi-stem, 14 stems, back from potential walk.
25	<i>Cercis canadensis</i>	Eastern Redbud	13"	14'	13'	7'	Poor	40.63		One-sided; decay at base of trunk; in path of potential walk.
26	<i>Acer rubrum</i>	Red Maple	18"	14'	18'	9'	Good	62.50		Significant pruning on street side from overhead utility wires
27	<i>Acer rubrum</i>	Red Maple	26"	18'	26'	13'	Fair	50.00		Co-dominant; significant pruning on streetside from overhead utility wires
28	<i>Quercus rubra</i>	Red Oak	34"	26'	34'	17'	Good	75.00		Path of sidewalk is minor incursion into critical root zone.
29	<i>Fraxinus pennsylvanica</i>	Green Ash	12"	5'	12'	6'	Poor	18.75		Nearly dead; in path of potential walk.
30	<i>Acer rubrum</i>	Red Maple	14"	10'	14'	7'	Good	71.88		Co-dominant; path of potential walk is significant intrusion into critical root zone of this tree. Recommend routing walk at back of curb.
31	<i>Juniperus virginiana</i>	Eastern Red Cedar	12"	10'	12'	6'	Good	68.75		Branches will need to be pruned away from proposed sidewalk for proper clearances
32	<i>Cornus kousa</i>	Kousa Dogwood	2"	2'	2'	1'	Excellent	90.63		Newly planted; far enough back to not be removed by proposed sidewalk
33	<i>Lagerstroemia indica</i>	Crape Myrtle	12"	6'	12'	6'	Good	65.63		Multi-stem; adjacent potential sidewalk path. Significant pruning required on street side to maintain clearance for sidewalk.
34	<i>Quercus palustris</i>	Pin Oak	13"	6'	13'	7'	Good	68.75		Co-dominant; critical root zone of this tree significantly affected by path of walk.
35	<i>Acer palmatum</i>	Japanese Maple	9"	4'	9'	5'	Good	62.50		Top severely pruned; low canopy will need to be pruned back for walkway clearances. Critical root zone of tree will be affected.

Note: Tree sizes are by visual estimate as most trees are located on private property and were not measured; Tree locations are approximate and not surveyed.

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TREE INVENTORY AND CONDITION ANALYSIS  
DELANO DRIVE SE  
SIDEWALK STUDY  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

SCALE: NTS  
C.I. N/A

DATE: JAN. 2022

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