

# DAMASCUS HIGH SCHOOL

## Grounds Management Report

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Prepared for the DHS PTSA  
Campus Beautification Committee  
By Stephen Van Hoven  
August 2018

## **Introduction**

Damascus High School (DHS) is a key municipal building in the community of Damascus. Located at the corner of Ridge Road and Bethesda Church Road, the school campus lies on the southwestern edge of the central business district of Damascus. As visitors and residents enter the town of Damascus from the sprawling communities to the south on Ridge Road, DHS is the first public building they see.

The grounds and appearance of the landscape have a profound impact on visitors including, but not limited to, visiting athletic teams, guest performers, voters on election day and relatives visiting the school. The appearance and condition of the campus grounds form the first impression about the school and community's sense of pride and care for their school.

Most importantly, the condition and maintenance of school grounds, landscapes, gardens and the students' surroundings can greatly influence student pride, feelings of community and security. Well cared for school grounds, gardens and landscapes with trees and plants create a school environment that enriches learning and can inspire students and staff creatively and cognitively. Conversely, school grounds that are not cared for, with many issues of deferred maintenance or school grounds in an unkept condition can have the opposite impact.

Additionally, the campus landscape of DHS is a significant natural resource for the community and has several cultural resources that are part of the DHS Heritage. These include several specimen trees, memorial trees, as well as donated landscape elements.

## **Goals**

The purpose of the PTSA Campus Beautification Committee is to develop, coordinate and implement efforts to enhance, improve and beautify the grounds of DHS. The main goals and objectives of the grounds management report (GMR) are to:

1. Provide a landscape site plan
2. Provide a tree and plant survey
3. Identify natural and cultural resources
4. Identify maintenance and safety concerns
5. Identify Priority Areas
6. Recommendations

## **Landscape Site Plan**

The landscape site plan (Appendix A) shows the existing trees, plants and other features. For purposes of this plan, only the western side of the school campus is shown. Cultural resources are highlighted. The rest of the campus will be surveyed at a later date.

## Tree and Plant Survey

Existing trees, shrubs and planting areas are identified on the Tree and Plant Survey Sheet (Appendix B). Each tree, shrub and planting area is labelled with a number that corresponds to the plant number in the table of trees and plants. The survey was conducted between May and August 2018.

The following table lists the trees and plants by Latin name and common name. The diameter at breast height (DBH) provided is an estimate. It might be an interesting assignment for DHS Horticulture classes to measure and record the DBHs of the trees. The objective of the survey is to identify the types of trees and plants and to map the locations on a plan to be used as a tool for assigning work or future projects. A complete assessment of each tree was not performed, the condition rating was determined solely on the appearance of the trees.

P= Poor

F= Fair

G= Good

VG= Very Good

The survey identified 20 different species of trees and 8 species of shrubs. There were 81 individual trees surveyed.

NUMBER	SPECIES	COMMON NAME	EST. DBH	CONDITION	MULCH Y/N
1	<i>Tilia cordata</i>	Littleleaf linden	12	VG	N
2	<i>Tilia cordata</i>	Littleleaf linden	12	VG	N
3	<i>Ulmus americana</i>	American elm	24+	G	N
4	<i>Robinia pseudoacacia</i>	Black locust	12	F	N
5	<i>Ulmus parviflora</i>	Lacebark elm	4	P	N
6	<i>Ulmus parviflora</i>	Lacebark elm	5	P	Y
7	<i>Ulmus</i> spp.	Elm	8	F	N
8	<i>Ulmus</i> spp.	Elm	10	F	N
9	<i>Quercus palustris</i>	Pin oak	20	G	N
10	<i>Ulmus</i> spp.	Elm	8	F	Y
11	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	8	G	N
12	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	6	P	N
13	<i>Quercus palustris</i>	Pin oak	8	F	N
14	<i>Quercus palustris</i>	Pin oak	9	P	N
15	<i>Prunus cerasifera</i> 'Atropurpea'	Cherry plum	3	P	N
16	<i>Prunus cerasifera</i> 'Atropurpea'	Cherry plum	3	P	N
17	<i>Quercus palustris</i>	Pin oak	8	P	N
18	<i>Quercus palustris</i>	Pin oak	10	P	N
19	<i>Acer rubrum</i>	Red maple	2	P	N

<b>NUMBER</b>	<b>SPECIES</b>	<b>COMMON NAME</b>	<b>EST. DBH</b>	<b>CONDITION</b>	<b>MULCH Y/N</b>
20	Tilia cordata	Littleleaf linden	8	VG	Y
21	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	16	G	Y
22	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	12	G	Y
23	Taxus spp.	Yew			
24	Photinia x fraseri	Red Tipped Photinia			
25	Lonicera maackii	Amur Honeysuckle			
26	Taxus spp.	Yew			
27	Prunus x yedoensis	Yoshino cherry	12	G	Y
28	Gingko biloba	Gingko	3	G	Y
29	Gingko biloba	Gingko	3	F	Y
30	X Cupressocyparis leylandii	Leyland cypress	12	G	Y
31	X Cupressocyparis leylandii	Leyland cypress	12	G	Y
32	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
33	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
34	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
35	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
36	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
37	X Cupressocyparis leylandii	Leyland cypress	16	G	Y
38	Prunus x yedoensis	Yoshino cherry	4	G	Y
39	BUXUS (3)	Boxwood			
40	Abelia grandiflora	Glossy abelia			
41	Quercus phellos	Willow oak	30+	G	N
42	Quercus phellos	Willow oak	30+	G	N
43	Quercus phellos	Willow oak	30+	G	N
44	Quercus phellos	Willow oak	30+	G	N
45	sign plantings	Miscanthus and Nandina			Y
46	Chioanthus retusus	Chinese fringe tree	10	G	Y
47	Chioanthus retusus	Chinese fringe tree	10	G	Y
48	Miscanthus spp.				Y
49	Rosa spp.				Y
50	Spiraea japonica	Japanese spirea			Y
51	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	10	G	Y
52	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	11	G	Y
53	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	14	G	Y
54	Cornus kousa	Kousa dogwood	5	G	Y
55	Cedrus atlantica	Atlas cedar	3	G	Y
56	Cornus kousa	Kousa dogwood	5	G	Y
57	Acer rubrum	Red maple	7	VG	Y
58	Thuja occidentalis	Arborvitae	2	G	Y
59	Juniperus spp.	Juniper			Y
60	Chamaecyparis pisifera 'Filifera Aurea'	Threadleaf cypress			Y

<b>NUMBER</b>	<b>SPECIES</b>	<b>COMMON NAME</b>	<b>EST. DBH</b>	<b>CONDITION</b>	<b>MULCH Y/N</b>
61	<i>Thuja occidentalis</i>	Arborvitae	2	G	Y
62	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	8	F	Y
63	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	6	G	Y
64	<i>Taxus</i> spp.	Yew			Y
65	<i>Acer rubrum</i>	Red maple	9	G	Y
66	<i>Acer rubrum</i>	Red maple	5	G	Y
67	<i>Acer rubrum</i>	Red maple	8	G	Y
68	<i>Acer rubrum</i>	Red maple	8	G	Y
69	<i>Acer rubrum</i>	Red maple	8	G	Y
70	<i>Acer rubrum</i>	Red maple	8	G	Y
71	<i>Acer rubrum</i>	Red maple	8	G	Y
72	<i>Taxus</i> spp. and <i>Spiraea japonica</i>	Yew and Spirea			
73	<i>Taxus</i> spp.	Yew			
74	<i>Cornus kousa</i>	Kousa dogwood	10	G	Y
75	<i>Cornus kousa</i>	Kousa dogwood	5	F	Y
76	<i>Acer rubrum</i>	Red maple	8	G	Y
77	<i>Acer rubrum</i>	Red maple	8	G	Y
78	<i>Acer rubrum</i>	Red maple	7	F	Y
79	<i>Acer rubrum</i>	Red maple	7	G	Y
80	<i>Quercus palustris</i>	Pin oak	10	F	Y
81	<i>Quercus palustris</i>	Pin oak	9	P	Y
82	<i>Quercus palustris</i>	Pin oak	11	F	Y
83	<i>Acer rubrum</i>	Red maple	6	F	N
84	<i>Acer rubrum</i>	Red maple	5	F	N
85	<i>Acer rubrum</i>	Red maple	4	F	N
86	<i>Quercus rubra</i>	Red oak	10	G	N
87	<i>Diospyros virginiana</i>	Common persimmon	12	F	N
88	<i>Morus alba</i>	White mulberry			
89	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	5	P	N
90	<i>Gleditsia triacanthus</i> var. <i>inermis</i>	Honeylocust	5	P	N
91	<i>Taxus</i> spp.	Yew			
92	<i>Ostrya virginiana</i>	American hop hornbeam	6	VG	Y
93	<i>Ostrya virginiana</i>	American hop hornbeam	9	VG	Y
94	<i>Ostrya virginiana</i>	American hop hornbeam	5	VG	Y
95	<i>Ostrya virginiana</i>	American hop hornbeam	5	VG	Y
96	<i>Acer platanoides</i>	Norway maple	24	P	N
97	<i>Acer rubrum</i>	Red maple	12	G	N

## Natural Resources

The landscape at DHS has some excellent tree specimens and there is potential for the campus grounds to be used as an outdoor classroom in addition to the aesthetics. DHS is home to an MCPS Horticulture program, and the grounds offer opportunities for hands on experience in areas such as plant and weed identification, landscape site planning, gardening, pruning, planting, plant pests and disease, arboriculture, pruning and many more.

Further, the landscapes, plants and gardens at DHS can be used as resources for demonstrating other areas of study such as botany, ecology, urban ecology, or the importance of pollinators.

The natural resources found on the campus are of greater value to the school than aesthetics, so an improvement to the maintenance and condition of the grounds has many other benefits.

Some of the trees and plants to highlight are:

1. The grove of 4 American Hop Hornbeam, *Ostrya virginiana*, just to the south of the gymnasium entrance (trees #92-95). These are great examples of a native landscape tree that is not very common.
2. Tree #87. Common persimmon, *Diospyros virginiana*, another Maryland native. The wood was used to make golf clubs, 'woods'. The wood is very hard, persimmon is in the ebony family. Produces edible fruit.
3. Trees #54, 56, 74 and 75. Very nice specimens of the Kousa dogwood, *Cornus kousa*. Native to China, blooms after the native flowering dogwood.



Kousa dogwood, *Kousa dogwood*

4. Trees #21, 22, 51, 52 and 53. Beautiful Kwanzan cherry, *Prunus serrulata* 'Kwanzan'. One of several species of Japanese flowering cherry. Blooms are pink and flowers after the Yoshino Cherries.

5. Trees #27 and 38. Yoshino cherry, *Prunus x yedoensis*. This is the type of flowering cherry at the Tidal Basin in DC.

6. Trees #46 and 47. Chinese fringe tree, *Chioanthus retuses*, is an unusual relative of the native *Chioanthus virginicus* or White fringe tree. Particularly unique about the two trees at DHS is the single stem habit. The tree is usually a multi-stemmed, more shrub like plant.

7. Trees #41-44. These 4 Willow oaks, *Quercus phellos*, are the largest on campus and line the side walk along Ridge Road.



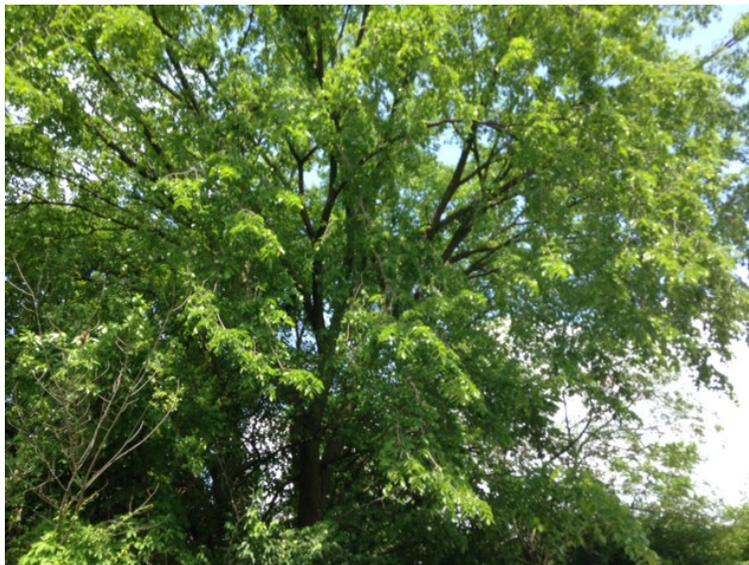
Willow oaks, *Quercus phellos*

8. Trees #1 and 2. These two littleleaf lindens, *Tilia cordata*, are excellent specimens. They are growing inside the fenced off storm water management area. The weeds along the fence block the view of these trees, which will greatly enhance the parking area when pruned and made visible, they will create a nice focal point at the entrance off Bethesda Church Road.



Two littleleaf linden, *Tilia cordata*

9. Tree #3 is a fine, large specimen of American elm growing in the storm water management area. Clearing some of the underbrush and fence would allow this tree to stand out.



American elm, *Ulmus americana*

### **Cultural Resources**

Elements that are part of the DHS and community heritage should be managed as cultural resources. Features identified as being significant to the history of DHS or connected to an alumnus are highlighted in the Landscape Site Plan (Appendix A).

1. The class of 1996 bench. Located to the north of the main entrance to the school.

2. The donated bricks located to the north of the main entrance to the school.



Donated bricks and Class of 1996 bench located to the north of the main entrance.

3. The Ryan Thomas Didone Memorial Tree. Tree #57 is a red maple, *Acer rubrum*. The memorial also includes a nice brick tree ring and plaque.



Ryan Thomas Didone Memorial Tree



Ezekial Oak Babendrier Memorial Tree

4. Ezekial Oak Babendrier Memorial Tree. Tree #55 is a Blue Atlas Cedar, *Cedrus atlantica*. There is a plaque at the tree.

5. Laurie Weeks Memorial plaque. There is a plaque located near the bus stop along Ridge Road. It is assumed that there was a tree planted there as well that has been removed.



Laurie Weeks Memorial

### Areas of Concern

Areas of high concern are highlighted on the sheet Areas of Concern (Appendix C).

**Poison Ivy.** There are several areas around the campus where poison ivy is extensive and in close proximity to sidewalks, parking lots or buildings where students or staff can be exposed.



Poison Ivy growing at the south end of the staff parking lot along the southern boundary fence.



Poison Ivy growing on building and fence on northside of campus.

At a minimum, the vines should be cut at the base to kill the upper part of the vine. The ivy will grow back unless the roots are removed or treated with herbicide. Poison Ivy growing on the ground should be sprayed with herbicide.

***Crooked, broken, missing and damaged signs.*** There are several signs on the campus and in the parking areas that are leaning, crooked, bent or missing. Visually, these signs are very noticeable, especially at the main entrances to the school. In addition, several signs appear very old and faded. Bent, rusty and unsightly signage should be replaced in order better the appearance of the grounds. Signs should be checked that they meet minimum standards for height, legibility and retroreflectivity. Refer to the Maryland State Highway Administration Manual on Uniform Traffic Control Devices 2011 (Parts 2A.07, 2A.21, 2A.22).

[https://www.roads.maryland.gov/mmutcd/2011\\_rev122011\\_MDMUTCD\\_Complete.pdf](https://www.roads.maryland.gov/mmutcd/2011_rev122011_MDMUTCD_Complete.pdf)





Empty, bent sign post

**Stumps.** There are several stumps left throughout the grounds. In addition to being unsightly, they prevent the possibility of replacing trees, especially when the stumps are left in the parking lot islands as there is limited space. Stumps left in high pedestrian traffic area can also present a tripping hazard.



**Unsecured Gates.** The gates at the electrical box on the north side of the school, and the two gates that access the retention pond at the corner of Ridge and Bethesda Roads are unsecured.



Unsecured gates

**Trash and debris.** A lot of trash and debris was observed upon several visits to the school grounds and appear to have been there for an extended period of time.



**Weeds.** There are a lot of weeds in the planting beds around the campus. There are weed trees and vines growing against and on the building, as well as covering some of the landscape plants. The presence of weeds in the beds next to the main entrance are particularly noticeable to any visitor.

Additionally, there is an overall lack of trimming following mowing and tall grass and weeds are present against the buildings, around trees, along fences and anywhere that is not mowed.



Weed trees on left. Under the vines on the right are some shrubs

Weed trimming would give the grounds a more manicured look.

Larger, woody weeds have been allowed to proliferate along the fence lines and along the guard rails at the entrance to student parking area off of Bethesda Church road. The fence lines should be kept free of vegetation to improve aesthetics, to preserve the integrity of the fence and for security reasons. Vines and trees will damage the fence as they grow.





***Unhealthy Trees.*** Dead and dying trees should be removed as soon as possible. The unhealthy trees on the grounds are extremely unsightly. Since the Campus Beautification Committee met with DHS administration and facility maintenance staff in May, some dead trees have been removed.



## Priority Areas

The sheet entitled Priority Areas (Appendix D) proposes an approach that establishes 4 Management Areas. Grounds maintenance tasks should be prioritized based on available resources and impact the effort has on the appearance of the grounds.

**Main Entrance/ Memorial Area.** Whether it was planned or not, the central location of the tree memorials, class bench, donated brick area, flagpoles and main entrance creates a very distinct special area for DHS. There are several significant assets and resources within this prominent area of the campus that can be showcased. This area should be maintained in a manner that shows pride and care for the school, community and heritage.



A single rose bush adds some color to the landscape



**Entrance Areas.** There are two other primary entrance areas near the gymnasium and cafeteria. These entrances are used daily by students and staff and also for events in the cafeteria, auditorium and gym.

The cafeteria entrance features two specimen Kwanzan flowering cherries and two hedges. The gymnasium entrance is flanked on the southside by four American hop hornbeam trees and a small yew hedge. The north side has a panel of grass. A consideration for a future project could be plantings on the north side of the gym entrance to create a balanced look.



Cafeteria Entrance



Gymnasium Entrance

***Peripheral Areas.*** These are the areas of the campus visible to the public from the main roads and traffic areas. Similar to the idea of “curb appeal,” it is what people see as they pass by the school, or the immediate impression people get when entering one of the parking areas off of Ridge or Bethesda Church Road. Ridge Road features the two DHS signs and plantings around the PTSA sign. Another strong landscape feature along Ridge Road are the 4 large willow oaks previously mentioned.



Trees and grass along Ridge Road

The north west portion of the campus around the water retention area, student parking area and along Bethesda Church Road is very contrasting to the more manicured looking southern portion of Ridge Road. Weed trees, vines and brush block the view to the school and the school appears completely unkept. Removal and management of the weeds will open views of the school and some of the large and more desirable trees within the retention area.



**General Areas.** All other areas of the school grounds would fall under general areas and require only routine maintenance.

### **Recommendations**

The following recommendations are made with the understanding that there are limited resources available. It is also understood the DHS Maintenance Staff have many responsibilities, duties and projects other than grounds maintenance. The Campus Beautification Committee looks forward to the opportunity to augment the DHS resources to address requirements that exceed the present school capabilities.

Resources should be allocated to the areas based on the priority zones.

1. Ensure areas are weed trimmed after mowing. This will have a very strong impact with very little effort. Keeping areas around buildings trimmed leads to a more manicured appearance. When limited

by time, focus on the main entrance and entrance zones. Additionally, weed trim along guard rails along Bethesda Church Road entrance to the parking lot.

2. Clean up trash and debris in the highest priority zones daily.

3. Keep the planting beds and tree rings in the main areas weed free and, if possible, topdressed with mulch. The areas by the Main Entrance and Entrance should be checked and weeded weekly during the growing season.

4. Remove weed trees and shrubs growing on buildings and in corners of buildings. When possible dig out roots, otherwise spot check and prune during growing season.

5. Fix crooked, bent signs. Remove blank sign posts. If possible, replace broken, faded, or bent signs.

6. Maintain mulch in rings. When possible, maintain a spade edge around mulch rings.

7. Grind or remove existing stumps.

8. Keep shrubs pruned and maintained.

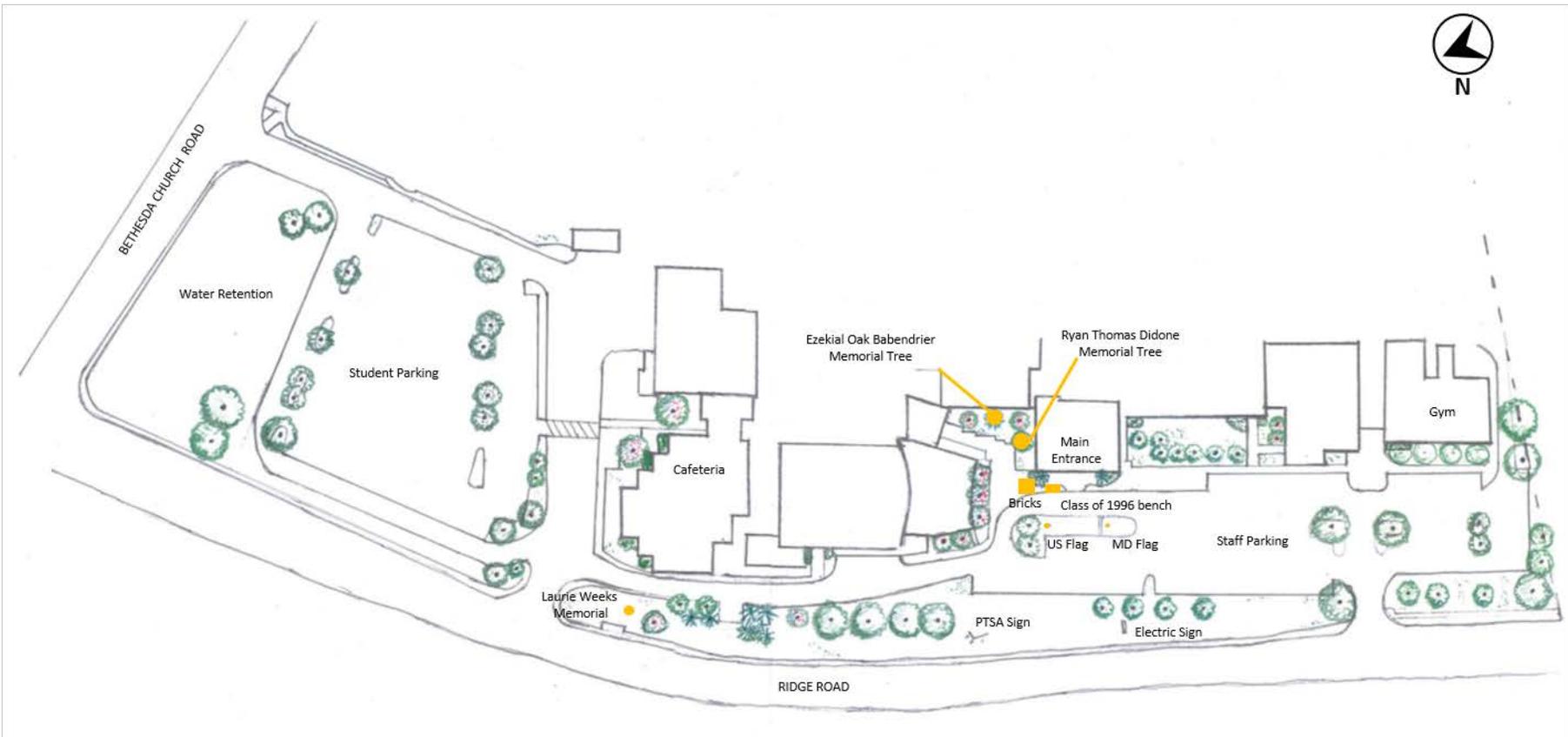
9. Remove poison ivy from areas.

10. Remove vines, brush and weed trees from fence and water retention area at the corner of Ridge and Bethesda Church Road.

11. Paint the Class of 1996 bench.

12. Tree maintenance. Remove dead and dying trees and grind/ remove stumps. Refer to Appendix E, Tree Maintenance Objectives. In addition to removals, there are several trees that should be pruned for dead wood removal, crown raising and structure.



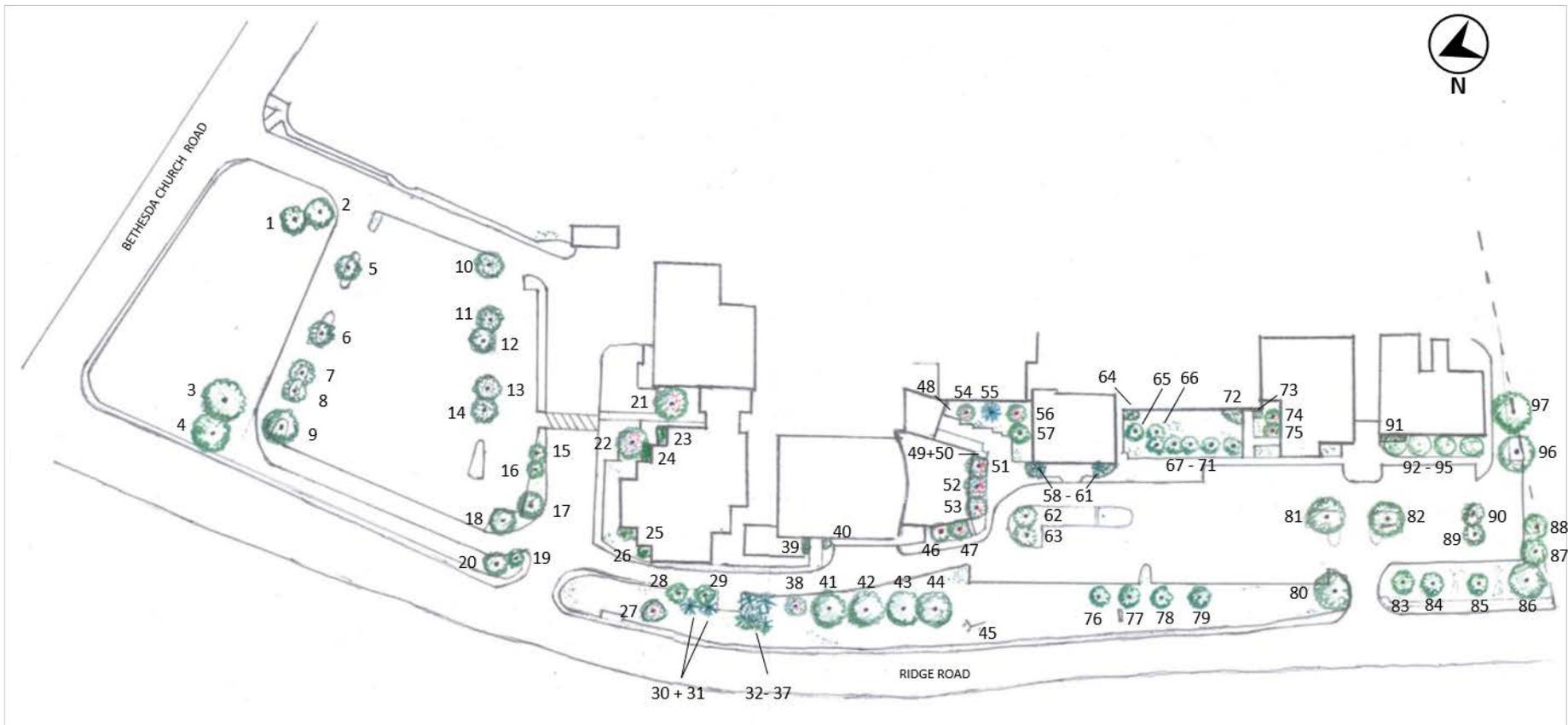


## DAMASCUS HIGH SCHOOL LANDSCAPE SITE PLAN

Scale is approximate  
 0 50 100  
 feet

Prepared for the DHS PTSA  
 Beautification Committee  
 By Stephen Van Hoven

August, 2018



Notes:

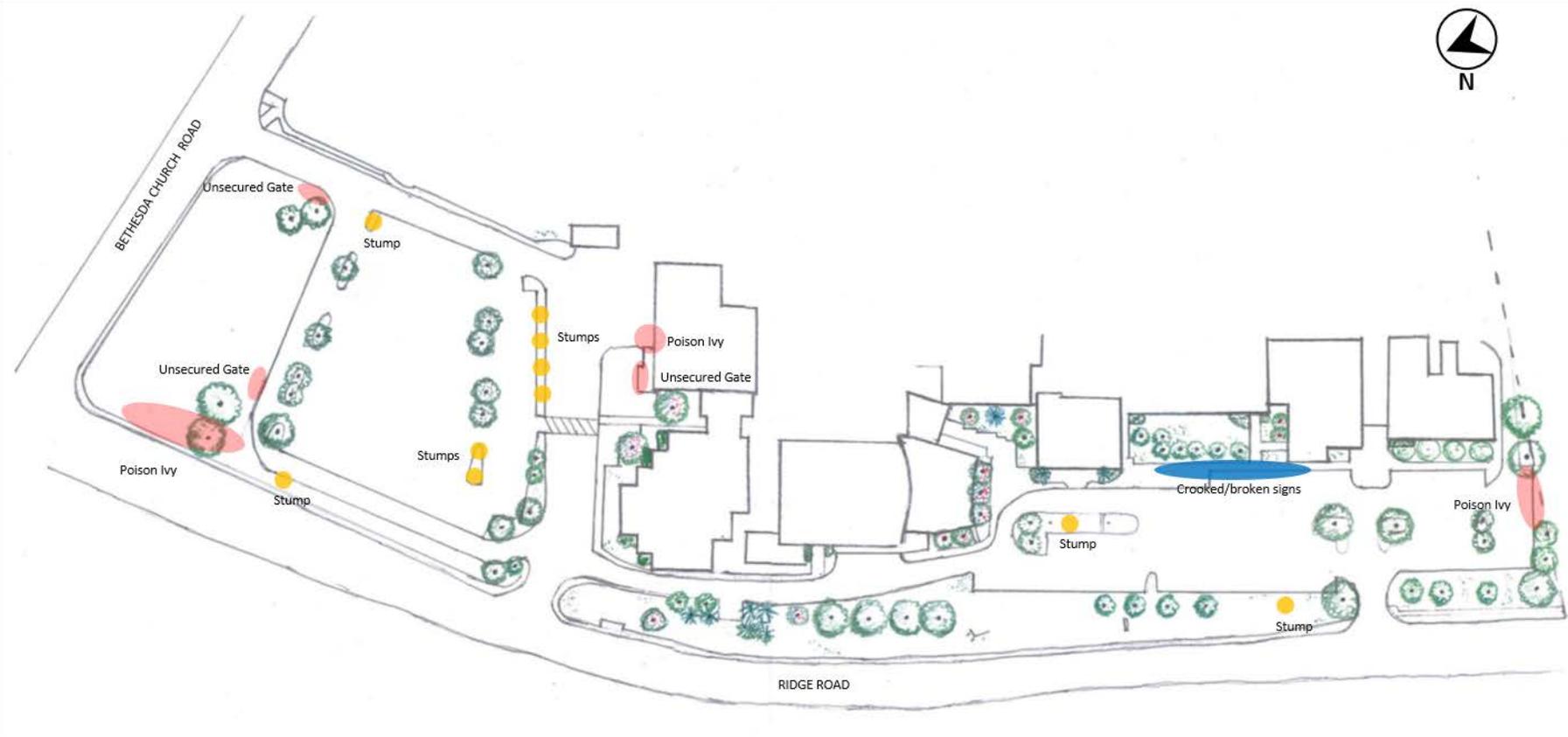
1. Tree, plant and other object locations are approximate.
2. Informational only. Do not use for construction.

**DAMASCUS HIGH SCHOOL**  
**Tree and Plant Survey**

Scale is approximate  
0 50 100  
feet

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Notes:

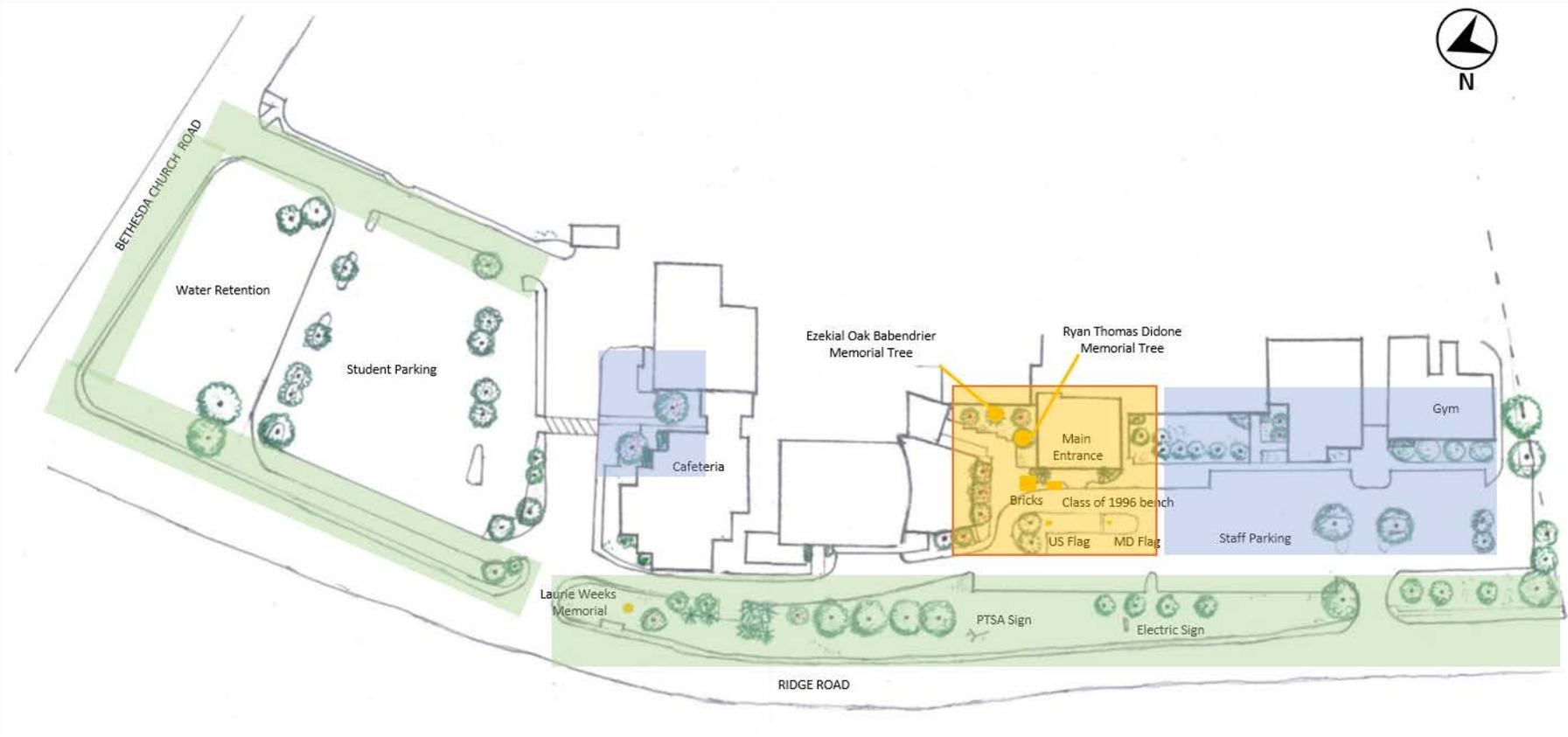
1. Tree, plant and other object locations are approximate.
2. Informational only. Do not use for construction.

**DAMASCUS HIGH SCHOOL**  
**Areas of Concern**

Scale is approximate  
0 50 100  
feet

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-  = Main Entrance/ Memorial Area
-  = Entrance Areas
-  = Peripheral Areas
-  = General Areas

## DAMASCUS HIGH SCHOOL Priority Areas

Scale is approximate  
0 50 100  
feet

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APPENDIX E TREE MAINTENANCE OBJECTIVES

	SPECIES	COMMON NAME	EST. DBH	CONDITION	Maintenance	Notes
1	Tilia cordata	Littleleaf linden	12	VG	Crown Raising	
2	Tilia cordata	Littleleaf linden	12	VG	Crown Raising	
4	Robinia pseudoacacia	Black locust	12	F	Prune	
5	Ulmus parviflora	Lacebark elm	4	P	Removal	
6	Ulmus parviflora	Lacebark elm	5	P	Removal	
7	Ulmus spp.	Elm	8	F	Prune	
8	Ulmus spp.	Elm	10	F	Prune	
9	Quercus palustris	Pin oak	20	G	Prune	
11	Gleditsia triacanthus var. inermis	Honeylocust	8	G	Prune	
12	Gleditsia triacanthus var. inermis	Honeylocust	6	P	Removal	
13	Quercus palustris	Pin oak	8	F	Prune	
14	Quercus palustris	Pin oak	9	P	Removal	
15	Prunus cerasifera 'Atropurpea'	Cherry plum	3	P	Removal	
16	Prunus cerasifera 'Atropurpea'	Cherry plum	3	P	Removal	
17	Quercus palustris	Pin oak	8	P	Removal	oak galls
18	Quercus palustris	Pin oak	10	F	Prune	
19	Acer rubrum	Red maple	2	P	Removal	remove- too close to stop sign
41	Quercus phellos	Willow oak	24+	G	Crown Raise/ Prune	
42	Quercus phellos	Willow oak	24+	G	Crown Raise/ Prune	
43	Quercus phellos	Willow oak	24+	G	Crown Raise/ Prune	
44	Quercus phellos	Willow oak	24+	G	Crown Raise/ Prune	
62	Gleditsia triacanthus var. inermis	Honeylocust	8	F	Prune	
65	Acer rubrum	Red maple	9	G	Crown Raise	
66	Acer rubrum	Red maple	5	G	Crown Raise	
67	Acer rubrum	Red maple	8	G	Crown Raise	
68	Acer rubrum	Red maple	8	G	Crown Raise	
69	Acer rubrum	Red maple	8	G	Crown Raise	
70	Acer rubrum	Red maple	8	G	Crown Raise	
71	Acer rubrum	Red maple	8	G	Crown Raise	
75	Cornus kousa	Kousa dogwood	5	F	Prune	
81	Quercus palustris	Pin oak	9	P	Removal	Chlorosis
82	Quercus palustris	Pin oak	11	F	Prune	
83	Acer rubrum	Red maple	6	F	Prune	
84	Acer rubrum	Red maple	5	F	Prune	
85	Acer rubrum	Red maple	4	F	Prune	
86	Quercus rubra	Red oak	10	G	Prune	
87	Diospyros virginiana	Common persimmon	12	F	Prune/ Remove Poison Ivy	
89	Gleditsia triacanthus var. inermis	Honeylocust	5	P	Removal	
90	Gleditsia triacanthus var. inermis	Honeylocust	5	P	Removal	
92	Ostrya virginiana	American hop hornbeam	6	VG	Crown Raise	
93	Ostrya virginiana	American hop hornbeam	9	VG	Crown Raise	
94	Ostrya virginiana	American hop hornbeam	5	VG	Crown Raise	
95	Ostrya virginiana	American hop hornbeam	5	VG	Crown Raise	