



**ARBORIST
TREE PRESERVATION REPORT**

PREPARED FOR

ADTEK Engineers, Inc.
150 South East Street, Suite 201
Frederick, MD 21701

PROJECT NAME **MIDDLETOWN ELEMENTARY/MIDDLE SCHOOL
REPLACEMENT**

SITE LOCATION **MIDDLETOWN EDUCATIONAL CAMPUS
MIDDLETOWN, MD**

DATE **DECEMBER 12, 2023 (FIELD REVIEW 12.10.2023)**

NLD # **2023.041**

PREPARED BY
MICHAEL NORTON



SUMMARY

The subject property is the site for the new Middletown Elementary and Middle School along with associated site improvements. The new construction may require impacts to the critical root zone (CRZ) that will have an effect on trees around the proposed development area.

The purpose of this report is to (from a ground level and without invasive techniques) visually inspect and evaluate the existing champion 76" Cottonwood labeled as tree #27 on the forest stand delineation.

DETAILS OF THE INSPECTION

This report references existing conditions of the existing tree without evaluation of the proposed development at this time. Consideration must be given to proximity of trees to structures, utilities and vehicles as well as property owners use of the property, exposure to prevailing weather patterns and susceptibility of a given species relative to fractures or root failure during weather events.

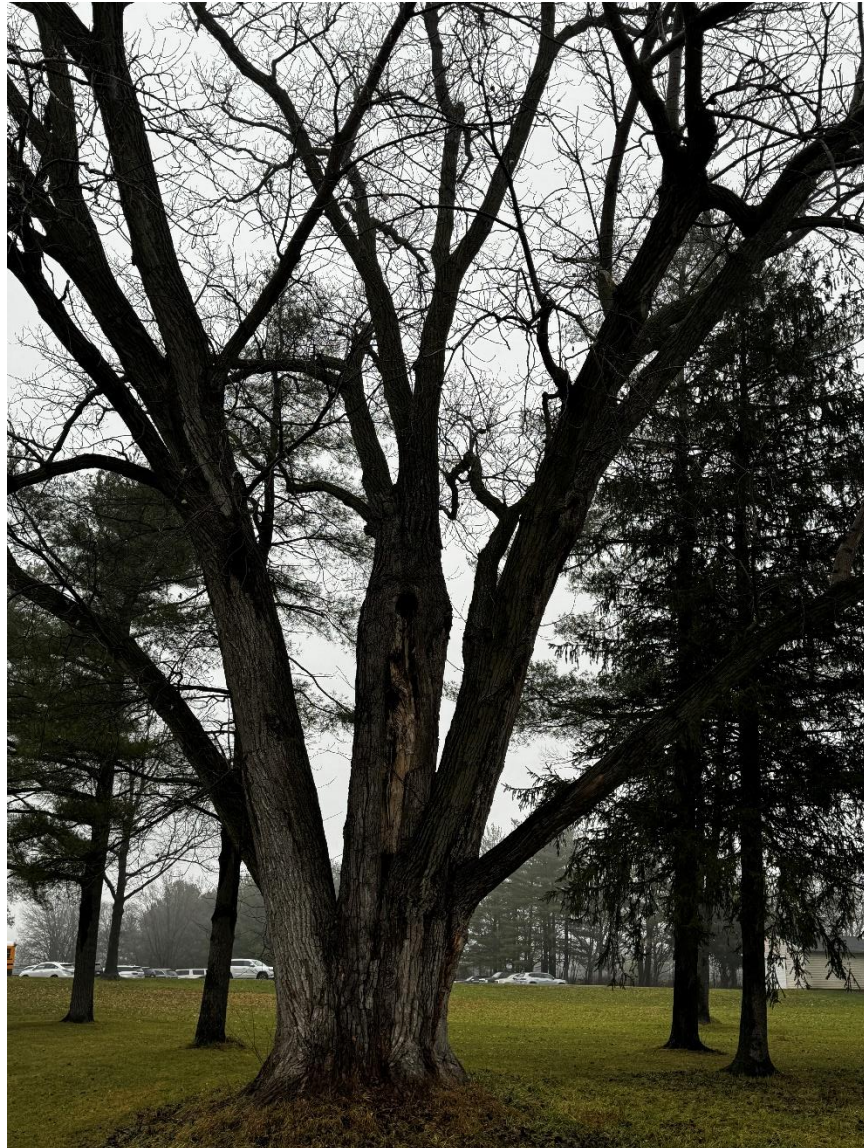
76" Cottonwood – Fair/Good

This tree appears to be maintained by a company or individual knowledgeable in tree care, given the cable system installed in the scaffold branches. Documentation of the tree and current care would provide insight into the health over the duration of monitoring. As the tree is currently, there are exposed/shallow roots that have mechanical damage likely from



mowers. The root flare appears to be a solid connection however, there is trunk damage shown in the photo. The area does not appear to be in active decay or soft wood but wound closure is not observed at this time. The damage does not appear to be impacting structural integrity of the trunk.

The area of concern is the large cavity in the main leader of the tree as depicted in the photographs below. From ground level the cavity appears to be approximately 30-40% of the leader diameter. The exposed cavity is approximately 10' in length. The cavity and area of exposure does not appear to be impacting the health of the tree based on fullness of canopy, good distribution of small branches and twigs.





Aside from the cavity, there do not appear to be visible health issues with the trees. There were no other symptoms of heart rot, such as fungus, dried or damaged wood. The cavity does not appear to be completely dried up and completely decayed.

The tree appears to be high fair/low good condition. Risk of tree failure could result in damage to the existing track or ballfield, but there do not appear to be structures, parking lots or high pedestrian traffic areas within the fall zone.

The CTLA rating of the tree is in the image below.

TREE CONDITION RATING WORKSHEET

(adapted from: *Guide for Plant Appraisal, 9th Edition*)

DATE: 12.10.2023 TREE # 27
 COMMON NAME: COTONWOOD
 SCIENTIFIC NAME: _____

Scoring system: No apparent problems-4; Minor problems-3; Major problems-2; Extreme problems-1

Factor 1: Roots (this inventory does not include root collar inspection)

Root anchorage <u>GOOD ROOT ANCHOR</u>	Toxic gases/chemical symptoms
Collar/flare soundness	Presence of insects or disease
<u>Mechanical injury</u> <u>MOVER DAMAGE</u>	Mushrooms
Girdling/kinked roots	Other: <u>EXPLODED ROOTS / SHALLOW</u>
Compaction/waterlogged roots	
<u>3</u>	<u>3</u> = <u>6</u>
Structure (1-4)	Health (1-4) Subtotal (2-8)

Factor 2: Trunk (this inventory does not include core samples or climbing to inspect)

Sound bark or wood	Swollen or sunken areas
<u>Cavities</u>	Presence of insects or disease
Mechanical or fire injury	Conks
<u>Cracks</u> (frost or other)	Other: <u>LARGE CAVITY AT MAIN LEAD ON MAIN 35% CAVITY. CANNOT DETERMINE CAVITY DEPTH AT GROUND LEVEL. SMALL HOLE AT BASE</u>
	<u>2/3</u> <u>3</u> = <u>5/6</u>
	Structure (1-4) Health (1-4) Subtotal (2-8)

Factor 3: Scaffold Branches (this inventory does not include climbing to inspect)

<u>Strong attachments</u>	Well-proportioned/proper taper
Smaller diameter than trunk where attached	Wound closure
Vertical branch distribution	Deadwood or fire injury
<u>Free of included bark</u> <u>MINOR</u>	Insects or disease
Free of decay and cavities	Other: <u>TREE APPEARS MAINTAINED WITH CABLE SUPPORT TO HEAVY BRANCHES</u>
<u>Well pruned</u>	
<u>3</u>	<u>3</u> = <u>6</u>
Structure (1-4)	Health (1-4) Subtotal (2-8)

Factor 4: small Branches and Twigs

Vigor of current shoots (compare previous growth)	Presence of insects or disease
Well distributed through canopy	Presence of insects or disease
Appearance of buds (color, shape, size for the species)	Other: <u>WELL DISTRIBUTED BRANCHES</u>
	<u>3</u>
	Health Subtotal (1-4)

Factor 5: Foliage and/or Buds

Size of foliage/buds	Wilted or dead leaves
Coloration of foliage	Dry buds
Nutrient status	Presence of insects or disease
Herbicide, chemical, pollution injury	Other: <u>WINTER</u>
	<u>3</u>
	Health Subtotal (1-4)

Total subtotal points assessed for the five Factors (8-32): 24/20
 Divide subtotal points by 32 (total points possible) and multiply by 100 to obtain the **Condition Rating (25-100)**: 75/72

Notes: TREE IS SET IN LANDSCAPE WITH PLenty OF ROOTS VOLUME
TREE APPROXIMATELY 6.5M TALL. TREE SHOULD BE MONITORED
FAILURE WOULD IMPACT SMALL PART OF TRACK / BALLFIELD.
TREE APPEARS UPPER FAIR / LOWER GOOD CONDITION.

Site Inspections/Monitoring/Further Investigation

Further investigation utilizing climbing or aerial review of the cavity along with resistograph measuring the relative density of wood of the tree could provide more information to find out where the tree is in danger of failure at a weak spot that is undetectable from visual review. Review of the maintenance records of the tree would also provide insight into the health of the tree over the years.

Long Term Survivability

All trees present a risk. No tree is ever "safe." The Arborist Report tries to minimize impacts to trees by removing trees with obvious visual defects or where the impacts will be too great, but it should be understood every tree has the potential to cause personal injury and/or property damage. When a tree is removed from a site, a new edge within the grouping is established and exposes new trees to hazards, such as wind, that they were previously not subject to. Ultimately, it is up to the property owner to decide their risk tolerance. These reports will not guarantee that the trees will not die, fall over or cause damage.

Conclusion

The recommendations in this report are based on tree conditions noted at the time the report was written. Tree condition can be influenced by many environmental factors, such as wind, ice and heavy snow, drought conditions, heavy rainfall, rapid or prolonged freezing temperatures, and insect/disease infestation. Therefore, tree conditions are subject to change without notice.

All information is true and accurate to the best of my knowledge and experience. All conclusions are based on professional opinion and were not influenced by any other party.

Sincerely,



Michael Norton

Certified Arborist # MA-4724A

Licensed Tree Expert #1756