

Exhibit B

Glossary

GLOSSARY

ANSI A300: Tree care performance parameters established by ANSI that can be used to develop specifications for tree maintenance.

arboriculture: The art, science, technology, and business of commercial, public, and utility tree care.

Arborist: trained professional either in the field touching tools to trees, managing, or recommending the work of touching tools to trees. *Certified Arborist* is a professional level attained through the International Society of Arboriculture through testing, education, and continuing education credits (CEUs). In Maryland an additional certification termed “*Maryland Licensed Tree Expert*” or MD LTE in order to promote or practice tree care work. Licensure also requires proof of professional liability insurance.

area (data fields): A collection of data fields collected during the inventory to aid in finding trees, including parking lots, community complex, Stormwater ponds, street trees, etc...

canopy: grouping or forest of tree individual tree crowns.

clearance requirements (data field): Pruning to meet clearance standards over streets and sidewalks, or where branches are considered to be interfering with the movement of vehicles or pedestrians or where they are obstructing signs and street or traffic lights. Typically, eight (8) feet over walks for pedestrians and thirteen (13) feet over traffic travel ways for residential streets.

condition (data field): The general condition of each tree’s health and structure rated during the inventory assessment according to the following categories adapted from the International Society of Arboriculture’s rating system: Excellent (100%), Very Good (90%), Good (80%), Fair (60%), Poor, (40%), Critical (20%), Dead (0%).

crown: that portion of a tree containing branches and foliage.

Crown Clean (Primary Maintenance Need): Based on *ANSI A300 Standards*, these trees require selective removal of dead, dying, broken, and/or diseased wood to minimize potential risk.

cycle: Planned length of time between vegetation maintenance activities.

defect: See **structural defect**.

Diameter of trees: A tree’s diameter measured to the nearest inch in 1-inch size classes at 4.5 feet above ground, also known as diameter at breast height (DBH) or diameter. Typically measured to the closest .5’ using special diameter tapes for arborist’s and foresters.

Extreme Risk tree: Applies in situations where tree failure is imminent, there is a high likelihood of impacting the target, and the consequences of the failure are “severe.” In some cases, this may mean immediate restriction of access to the target zone area in order to prevent injury. A tree’s condition is often called “Critical” with this rating.

failure: In terms of tree management, failure is the breakage of stem or branches, or loss of mechanical support of the tree’s root system.

Follow up Inspection (data field): Notes that a specific tree may require an annual inspection for several years to make certain of its maintenance needs. Insect or disease issues would be one. Another example would be a tree with a weak union and/ or included bark susceptible to a crack or future split. Further inspection may be recommended for a defect requiring additional equipment for investigation, such as suspected girdling root below grade.

genus: A taxonomic category ranking below a family and above a species and generally consisting of a group of species exhibiting similar characteristics. In taxonomic nomenclature, the genus name is used, either alone or followed by a Latin adjective or epithet, to form the name of a species. A listing is provided along with numbers and % of each. It is a helpful management tool. For instance, if a large number of one genera are infested with pests needing annual treatment or replacement- is it time to consider an alternate?

geographic information system (GIS): A technology that is used to view and analyze data from a geographic perspective. The technology is a piece of an organization's overall information system framework. GIS links location to information (such as people to addresses, buildings to parcels, or streets within a network) and layers that information to provide a better understanding of how it all interrelates.

Girdling root: Various sizes of roots from pencil sized to 2" diameter that can grow in a loop around the adjacent top of roots or portion of the trunk base and expand constricting the flow of conductive tissue. Obvious, above grade roots are easily cut by a trained crew but below ground, out of site girdling roots need to be carefully excavated with hand tools or small supersonic air tools (SSAT). Some species are more prone to this condition- maples, lindens, and elms, and zelkova.

global positioning system (GPS): GPS is a system of earth-orbiting satellites that make it possible for people with ground receivers to pinpoint their geographic location.

grow space size (data field): Identifies the minimum width of the tree grow space for root development. Parking lot islands and street curbs can be constrictive of root growth thus potentially increasing tree stress over time.

Sidewalk raised (data field): Indicates trees damaged by hardscape or hardscape damaged by trees (for example, damage to curbs, cracking, lifting of sidewalk pavement .5 inch or more).

High Risk tree: The High Risk category applies when consequences are "significant" and likelihood is "very likely" or "likely," or consequences are "severe" and likelihood is "likely." In a population of trees, the priority of High Risk trees is second only to Extreme Risk trees.

Non- native invasive: A tree, vine, shrub, or herbaceous species that is out of its original biological community. Its introduction into an area causes or is likely to cause economic or environmental harm, or harm to human health. An invasive, exotic tree has the ability to thrive and spread aggressively outside its natural range. An invasive species that colonizes a new area may gain an ecological edge since the insects, diseases, and foraging animals that naturally keep its growth in check in its native range are not present in its new habitat. Some invasive trees are not grown as landscape material. Others may be. Trees and shrubs that are readily sought in the landscape but easily escape into natural areas include Norway maples, zelkova, ornamental pears, and Japanese barberry, to name a few.

inventory: See **tree inventory**.

Low Risk tree: The Low Risk category applies when consequences are “negligible” and likelihood is “unlikely”; or consequences are “minor” and likelihood is “somewhat likely.” Some trees with this level of risk may benefit from mitigation or maintenance measures, but immediate action is not usually required.

mapping coordinate (data field): Helps to locate a tree; X and Y coordinates were generated for each tree using GPS.

Moderate Risk tree: The Moderate Risk category applies when consequences are “minor” and likelihood is “very likely” or “likely”; or likelihood is “somewhat likely” and consequences are “significant” or “severe.” In populations of trees, Moderate Risk trees represent a lower priority than High or Extreme Risk trees.

monoculture: A population dominated by one single species or very few species. Infestations of insect or disease can be very damaging in a community with a high population of a single species.

None (Secondary Maintenance Need): Used to show that no secondary maintenance is recommended for the tree. Young trees may have a secondary maintenance need of *none*.

notes (data field): Describes additional pertinent information.

observations (data field): When conditions with a specific tree warrant recognition, it was described in this data field. Observations include cavity decay, grate guard, improperly installed, improperly mulched, improperly pruned, mechanical damage, memorial tree, nutrient deficiency, pest problem, poor location, poor root system, poor structure, remove hardware, serious decline, and signs of stress.

overhead utilities (data field): The presence of overhead utility lines above a tree or planting site.

Primary Maintenance Need (data field): The type of tree work needed to reduce immediate risk.

pruning: The selective removal of plant parts to meet specific goals and objectives. Various pruning methods are recommended by arborist to achieve specific objectives. Refer to pruning standards based on *ANSI (American National Standards Institute) A300 (Part 1)*.

Clearance Pruning (Secondary Maintenance Need): Signifies a maintenance need for a tree. Raising the crown is characterized by pruning to remove low branches that interfere with sight and/or traffic.

Reduction Pruning (Secondary Maintenance Need): Signifies a maintenance need for a tree. Reducing the crown is characterized by selective pruning to decrease height and/or spread of the crown in order to provide clearance for electric utilities and lighting.

Routine Prune: general pruning to correct defects and improve a trees health and structure as the tree grows and changes.

Training Pruning (aka Structural Pruning): signifies a type of pruning normally for young trees to remove current and future defects and correct improper form.

Removal (Primary Maintenance Need): Data field collected during the inventory identifying the need to remove a tree. Trees designated for removal have defects that cannot be cost-effectively or practically treated such as decay, broken tops, major splits, high percentage of dead crowns, or growing in an increasingly unsatisfactory location.

Restore (Secondary Maintenance Need): Signifies a maintenance need for a tree. Restoring is selective pruning to improve the structure, form, and appearance of trees that have been severely headed, vandalized, or damaged.

right-of-way (ROW): See **street right-of-way**.

risk: Combination of the probability of an event occurring and its consequence.

risk assessment (data fields): The risk assessment is a point-based assessment of each tree by an arborist using a protocol based on the U.S. Forest Service Community Tree Risk Rating System. In the field, the probability of tree or tree part failure is assigned 1–4 points (identifies the most likely failure and rates the likelihood that the structural defect(s) will result in failure based on observed, current conditions), the size of the defective tree part is assigned 1–3 points (rates the size of the part most likely to fail), the probability of target impact by the tree or tree part is assigned 1–3 points (rates the use and occupancy of the area that would be struck by the defective part), and other risk factors are assigned 0–2 points (used if professional judgment suggests the need to increase the risk rating). The data from the risk assessment is used to calculate the risk rating that is ultimately assigned to the tree.

risk rating: Level 2 qualitative risk assessment will be performed on the ANSI A300 (Part 9) and the companion publication *Best Management Practices: Tree Risk Assessment*, published by International Society of Arboriculture (2011). Trees can have multiple failure modes with various risk ratings. One risk rating per tree will be assigned during the inventory. The failure mode having the greatest risk will serve as the overall tree risk rating. The specified time period for the risk assessment is one year.

Secondary Maintenance Need (data field): Recommended maintenance for a tree, which may be risk oriented, such as raising the crown for clearance, but generally was geared toward improving the structure of the tree and enhancing aesthetics.

species: Fundamental category of taxonomic classification, ranking below a genus or subgenus, and consisting of related organisms capable of interbreeding.

stem: A woody structure bearing buds and foliage, and giving rise to other stems.

stems (data field): Identifies the number of stems or trunks splitting less than 1 foot above ground level.

street name (data field): The name of a street right-of-way or road identified using posted signage or parcel information.

street right-of-way (ROW): A strip of land generally owned by a public entity over which facilities, such as sidewalks, underground public utilities, highways, railroads, or power lines, are built.

street tree: A street tree is defined as a tree within the right-of-way.

structural defect: A feature, condition, or deformity of a tree or tree part that indicates weak structure and contributes to the likelihood of failure.

Stump Removal (Primary Maintenance Need): Indicates a stump that should be removed.

Thin (Secondary Maintenance Need): Signifies a maintenance need for a tree. Thinning the crown is the selective removal of water sprouts, epicormic branches, and live branches to reduce density.

topping: Characterized by reducing tree size using internodal cuts without regard to tree health or structural integrity; this is not normally an acceptable pruning practice.

tree: A tree is defined as a perennial woody plant that may grow more than 20 feet tall. Characteristically, it has one main stem, although many species may grow as multi-stemmed forms.

tree benefit: An economic, environmental, or social improvement that benefits the community and results mainly from the presence of a tree. The benefit received has real or intrinsic value associated with it.

tree inventory: Comprehensive database containing information or records about individual trees typically collected by an arborist.

urban forest: All of the trees within a municipality or a community. This can include the trees along streets or rights-of-way, in parks and greenspaces, in forests, and on private property.

Urban forester: a professional with education and training to provide technical assistance and guidance regarding trees or forests and their natural and man-made environmental elements. Urban foresters may be employed by agencies or provide fee consulting.

Utility (Secondary Maintenance Need): Selective pruning to prevent the loss of service, comply with mandated clearance laws, prevent damage to equipment, avoid access impairment, and uphold the intended usage of the facility/utility space.

Young Tree Train (Primary Maintenance Need): Data field based on *ANSI A300* standards, this maintenance activity is characterized by pruning of young trees to correct or eliminate weak, interfering, or objectionable branches to improve structure. These trees can be up to 20 feet tall and can be worked with a pole pruner by a person standing on the ground.