



**SPECIAL PROVISIONS
FOR
PLANTS**

**Black Hawk County
HSIPX-057-2(031)--3L-07**

**Effective Date
November 18, 2025**

THE STANDARD SPECIFICATIONS, SERIES 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

230372.01 GENERAL.

A. Work Included.

Provide all labor, materials, equipment and supervision required for the installation of all proposed plant material.

B. Delivery, Handling and Temporary Storage.

1. Install plant material on the day of delivery to the site; in the event this is not possible, protect that stock not planted.
2. Keep plant material that cannot be planted immediately after delivery in the shade, well protected with soil, wet moss or other acceptable material and well watered.
3. Do not bind plants with wire or rope at any time so as to damage the bark or break branches.
4. Lift and handle plants from the bottom of the ball only.
5. Plants moved with a ball will not be accepted if the ball is cracked, loose or broken before or during planting operations.
6. Deliver fertilizer to site in original, unopened containers, each bearing manufacturer's guaranteed analysis.
7. Store packaged materials off ground and protect from moisture.

C. Codes, Permits and Fees.

Obtain any necessary permits and pay any fees required for permits.

D. Job Conditions.

1. Existing Utilities.

- a. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during this work.
- b. Underground utilities shown on the drawings have been taken from existing public records, Contract Authority's records available as-built drawings and are correct to the best of our knowledge, provided for information only.
- c. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult Utility Owner immediately for directions. Cooperate with Contract Authority and utility companies in keeping respective services and facilities in operation. Repair damaged utilities caused by Contractor's negligence to the satisfaction of Utility Owner at no cost to the Contract Authority.
- d. Do not interrupt existing utilities serving facilities occupied and used by Contract Authority or others, during occupied hours, except when permitted in writing by the Engineer and then only after acceptable temporary utility services have been provided.
- e. Provide minimum of 48 hour notice to the Engineer and receive written notice to proceed before interrupting any utility.

2. Protection of Persons and Property.

- a. Barricade open excavations occurring as part of this work and post with warning lights.
- b. Operate warning lights as recommended by authorities having jurisdiction.
- c. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by this work.
- d. Perform excavation within drip-line of large trees to remain by hand, and protect the root system from damage or dryout to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with burlap. Paint root cuts of 1 inch diameter and larger with emulsified asphalt tree paint.

E. Inspection and Approval.

1. All materials described and specified herein are subject to inspection and approval by the Engineer.
2. Materials may be inspected by the Engineer at source of supply or the Engineer may require the Contractor to submit color slides and/or photographs which illustrate the specified plant material at the source of supply.
3. This inspection does not waive the right to reject any material after it has been delivered to the site and/or installed.

F. Initial Inspection and Acceptance.

1. Initial inspection of the planting to determine completion of contract work, exclusive of possible replacement of plants, will be made by the Engineer upon completion of the work.
2. Initial inspection will not be conducted unless all items of work as outlined have been completed.
3. Five days prior to the anticipated date of inspection submit written notice requesting inspection to the Engineer.
4. After inspection, the Contractor will be notified in writing, by the Engineer, of initial acceptance of inspected work exclusive of the possible replacement of plants and correction of deficiencies in the requirements for completion of the work.

5. Maintain, as specified, areas not acceptable until corrections are completed and reinspection is conducted.
6. If a significant time delay (60 to 90 days) is encountered, through no fault of the Contractor, inspection and initial acceptance of a major portion of the plantings may be granted.
7. All plants shall be alive and healthy at the time of initial acceptance.
8. Replacement of rejected plants before initial acceptance to meet the terms of initial acceptance shall not be considered a part of the guaranty and replacement requirement of this Specification.

G. Guarantee, Replacement and Final Inspection.

1. Guarantee plants for the duration of 1 full year after they are initially accepted as defined herein.
2. Plants shall be alive and in good, healthy and flourishing condition of growth at the end of the guaranty period.
3. At the end of the guaranty period, final inspection will be made by the Engineer upon written notice requesting such inspection; submit notice to the Engineer at least 10 days before the anticipated date of inspection.
4. Any plant, required under this project, that is dead or not in a vigorous, thriving condition, as determined by the Engineer at the time of Final Inspection, will be removed from the site.
5. Plants that are missing at the time of Final Inspection are to be installed during the specified planting season when weather and site conditions permit.
6. In case of any questions regarding the condition and satisfactory establishment of a rejected plant, the Contractor may elect to allow such plant to remain through another complete growing season. If at that time the rejected plant is found to be dead, in an unhealthy or badly impaired condition, it shall be replaced.
7. After Initial Acceptance, replace plants (once during or at the end of the guaranty period) that are observed to be dead or in a badly impaired condition.
8. One replacement after initial acceptance shall constitute fulfillment of Contractor's guaranty for the particular plant replaced.
9. Replacement Plants: Plants of the same kind and size as specified in the Plant Schedule; furnished and planted as specified herein.
10. Replacement Plants: Guyed or staked, mulched, wrapped, fertilized, pruned and restored to original condition as originally specified at no cost to Contract Authority.
11. Make all necessary repairs to grades, lawns and paving required because of plant replacements, at no cost to the Contract Authority.
12. Plant Replacement Cost: Borne by Contractor except for possible replacements resulting from removal, loss or damage due to occupancy of project in any part, vandalism, civil disobedience, or acts of neglect on the part of others, physical damage by animals, vehicles, fire, etc., or losses due to curtailment of water by local authority, or to "Acts of God". Floods, tornadoes, wind of hurricane force, and hail are not normal and the damage they do cannot be calculated in a bid.

230372.02 MATERIALS.

A. Plant Materials.

1. **Plant Schedule:** A list of plant materials is scheduled on the contract documents. In the event of any discrepancy between this schedule and the contract documents showing the plants, the contract documents shall govern.
2. **Certification of inspection of plant materials** required by Federal, State or other governmental agencies to accompany all shipments to be furnished to the Engineer.
3. **Nomenclature:** The names of plants required under this project conform to those given in the "Standardized Plant Names", 1942 Edition, prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein conform generally with names accepted in the nursery trade.
4. **Standards:** All plant materials, grading, sizes, methods, etc., are to conform to the Standards of the American Association of Nurserymen, Inc., as contained in their current publication "American Standard for Nursery Stock", (ANSI Z60.1-1996). In the event there is a discrepancy between these standards and this Specification, the most restrictive requirement shall govern.
5. **Labeling:** Legibly tag all plants as to name and size.
6. **Species and Variety:** True to name as specified. Plants approved as true to name at time of initial acceptance which, during the guaranty period, exhibit characteristics indicating they are not true to name will be replaced at no cost to the Contract Authority.
7. **Availability:** Before submitting his bid, the Contractor shall have investigated the sources of supply and satisfied himself that he can supply the listed plants in the size, variety and quality listed and specified. Failure to take this precaution will not relieve the Contractor from his responsibility for furnishing and installing all plant materials in strict accordance with the contract documents without additional cost to the Contract Authority.
8. **Quality.**
 - a. Growth habit typical for species and as indicated on the Plant Schedule.
 - b. Sound, healthy, vigorous, and free from insect pests, plant diseases and injuries.
 - c. One sided plants or plants taken from tightly planted nursery rows will be rejected.
9. **Size and Form.**
 - a. Equivalent or exceed measurements specified in the Plant Schedule.
 - b. Measured before pruning with branches in normal position. Height and spread specified refers to main body of plant and not from tip to tip of branches or roots.
 - c. Caliper of trees less than 4 inches - taken 6 inches above ground level. Trees 4 inches and over - measured 1 foot above ground level.
 - d. Specified trunk height can be obtained by pruning lower branches of a plant after the plant has been installed; however, pruning to achieve specified trunk height is to occur only after the Engineer has inspected plant and directed Contractor as to the amount of pruning required.
 - e. Where specified by caliper, no one stem of a specific multi-stemmed plant shall be smaller than the caliper size specified.
10. **Balled and Burlapped Plants.**
 - a. Designated as "B&B"; dug with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant.
 - b. In compliance with ANSI Z60.1-1996.

- c. Balls: Firmly wrapped with burlap or similar biodegradable material and bound with twine, cord, or wire mesh.
- d. Where necessary to prevent breaking or cracking of the ball during the process of planting, the ball may be secured to a platform. Broken or loose balls will not be accepted.
- e. A container grown plant, in lieu of a "B&B" plant, will be accepted provided it meets specified sizes and complies with ANSI Z60.1-1996.
- f. A machine moved plant, in lieu of a "B&B" plant, will be accepted provided it meets specified sizes and complies with ANSI Z60.1-1996.

11. Container Grown Plants.

- a. Container size as specified in Plant Schedule.
- b. In compliance with ANSI Z60.1-1996.

B. Planting Soil.

- 1. Soil excavated from planting pits that is similar in nature to topsoil and is determined to be suitable for planting soil shall be thoroughly mixed with 1 part of compost to 5 parts of existing soil.
- 2. Very poor soils of clay, gumbo, gravel, hard-pan, or other soils injurious to plants shall not be used.
- 3. If quantity of soil excavated from planting pits is not adequate for planting, furnish planting soil consisting of partially decomposed vegetable matter of natural occurrence; black, clean, low in content of mineral or woody material, mildly acid, fertile and friable. Mix with 1 part of compost to 5 parts of soil.
- 4. Dispose of soil excavated from planting hole that is determined not to be of quality required or is not needed to be used for planting soil.

C. Peat.

A domestic product consisting of partially decomposed vegetable matter of natural occurrence; black, clean, granulated or shredded.

D. Fertilizer.

- 1. Similar or equivalent to Milorganite (6-3-0).
- 2. Uniform in composition, dry and free flowing.
- 3. Fertilizer which becomes caked or otherwise damaged making it not suitable for use, will not be accepted.

E. Mulch.

- 1. Hardwood Mulch
- 2. Depth and locations as shown on the contract documents.
- 3. Furnish in bags or bulk.
- 4. Submit sample for approval by the Engineer.

F. Staking, Guying and Wrapping Materials.

1. Stakes: Similar or equivalent to steel farm fence posts, green vinyl coated or painted black with a rust inhibiting paint. All stakes the same color.
2. Wire: No. 11 gauge pliable galvanized wire.
3. Hose: New green or black 2-ply 1/2 inch diameter reinforced rubber garden hose; all hose the same color.
4. Guying cable: Five-strand, 3/16 inch diameter, steel cable. Attach wire cable clamps and turnbuckles (galvanized or aluminum).
5. Steel auger type screw anchor with 24 inch rod length and 3 inch plate.
6. Wrapping material: Heavy crinkle crepe tree wrapping paper in strips 4 inches to 10 inches wide.

G. Weed Preventer.

1. Dacthal or equivalent.
2. For groundcovers and shrub plant beds only.
3. Apply as per manufacturer's recommendation.

230372.03 CONSTRUCTION.

A. Commencement Date.

At the earliest possible date site conditions permit.

B. Planting Season for Balled and Burlapped and Container Grown Plants.

1. Deciduous trees and shrubs: April 1 to June 1 and August 15 to November 15.
2. Evergreen trees and shrubs: April 1 to June 1 and August 15 to October 15.

C. Preparation.

1. Stake out on the ground the locations of all plants and obtain approval of the Engineer before excavation is begun.
2. Relocate incorrectly located plants at no expense to the Contract Authority.

D. Excavation.

1. Excavate the plant pit, centered at the location stake.
2. Planting soil for backfilling shall be kept separate from excavated subsoil.
3. Excavate the plant pit large enough to provide for at least 6 inches of planting soil backfill around and beneath the root system.
4. Where surface or subsurface conditions prevent digging a plant pit to specified dimensions, obtain approval from Engineer to modify location of pit dimensions.

E. Drainage Test.

1. Randomly select a representative number of shrub plant pits in each shrub planting area and test for drainage prior to planting.
2. Test all tree plant pits for drainage.
3. Fill each selected plant pit with water and let stand for 24 hours.
4. Do not proceed with planting where drainage problems are apparent.
5. Report to the Engineer areas which do not drain within 24 hours.

F. Planting.

1. Groundcover.

- a. Cultivate groundcover areas 6 inches deep and grade smooth immediately before planting groundcover plants.
- b. Before planting, spread commercial fertilizer at the rate of 1/8 pound per plant over entire groundcover area, and cultivate into top 6 inches of soil.
- c. Plant groundcover to within 1 foot of trunk of tree or shrub planted within the area unless noted otherwise on the contract documents.
- d. After planting and before mulching, spread weed preventer over plant bed soil surface as per manufacturer's recommendation.
- e. Install mulch to depth of 3 inches over entire groundcover bed.

2. Balled and Burlapped and Container Grown Plants.

- a. Center the root ball in the plant pit resting on 6 inches of well tamped planting soil.
- b. Backfill the plant hole with planting soil placed in layers around the root ball.
- c. Carefully tamp each layer in place in a manner to avoid injury to roots or ball.
- d. When approximately two-thirds of the plant hole has been backfilled, fill the hole with water and allow the soil to settle around the roots.
- e. Set top of root ball level with the surrounding grade as shown in the contract documents.
- f. Place mulch as indicated in the contract documents.
- g. Cut cord or wire securing burlap at base of tree.

G. Fertilizing.

1. Trees and Shrubs: Mix with backfill.
2. Large shade trees: 2 pounds per inch of caliper.
3. Small trees: 1 pound per inch of caliper.
4. Shrubs: 1/4 pound per foot height.
5. Evergreens: 1/8 pound per foot height or spread.
6. Vines and groundcover: 1/8 pound per plant; place in bottom of plant pit.
7. Herbaceous plants: 1/8 pound per plant.

H. Staking.

1. Stake evergreen trees 8 feet in height and less and deciduous trees having a trunk caliper of 3 inches or less.
2. Use two stakes driven vertically to depth to provide a firm structure.

3. Attach wire to the stake at a point approximately 4 feet from the ground and attach to the tree at the same height.
4. Encase the wire in rubber hose to avoid direct contact between wire and bark of tree.
5. Place stakes opposite each other in an east-west direction and drive with a slight tilt away from each at the top so that slight tension can be placed on the wires when attached.
6. All staking material may be salvaged by the Contractor 12 to 18 months after planting.

I. Guying.

1. Anchor and guy evergreen trees over 8 feet in height and deciduous trees having a trunk caliper of more than 2 1/2 inches with three guying cables, unless shown otherwise on the contract documents.
2. Space three guys equally about each tree.
3. Each guy will consist of 3/16 inch cable attached to the tree trunk at an angle of 30 to 45 degrees at about 2/3 of the height of the tree and anchored at the ground to earth anchors as specified.
4. Make all cable fastenings with an approved cable clamp and turnbuckle.
5. All guying materials may be salvaged by the Contractor 12 to 18 months after planting.

J. Wrapping.

1. Promptly after planting, wrap trunks of all deciduous trees with tree wrapping paper spirally from ground line to bottom branches.
2. Neat and snug; materials held in place by a suitable cord; tapes are unacceptable.

K. Erosion Control Netting.

1. Install in accordance with manufacturer's recommendations.
2. Install at the location shown on drawings.

L. Pruning and Repair.

1. Prior to initial inspection, prune all trees and shrubs and repair any injuries.
2. Limit the amount of pruning to the minimum necessary to remove dead or injured branches and twigs.
3. Maintain the natural habit, shape and specified size of the plant.
4. Make all cuts flush; leave no stubs.
5. On all cuts over 3/4 inch in diameter and bruises or scars on the bark, trace the injured cambium back to living tissue and remove; smooth and shape wounds so as not to retain water and coat the treated area with an approved antiseptic tree paint.

M. Mulch.

1. Install at consistent depth as shown on drawings.
2. Sub-grade surface of areas to receive mulch shall be sloped to drain, smooth and free of ruts and clods.

N. Watering.

1. Water each tree immediately after planting.
2. Water trees a minimum of 10 to 15 gallons per tree per week when less than 1 inch of precipitation is received in the immediate location. Apply sufficient water to soak the tree's root zone. Follow this watering procedure throughout the guaranty period.

O. Clean Up.

1. Remove any soil, peat or similar material that has been brought onto paved areas by planting operations keeping those areas clean at all times.
2. Upon completion of the planting, dispose of all excess soil and stones resulting from the planting operation.
3. Remove all debris, resulting from planting operations, from the site.

P. Maintenance.

1. Begin immediately following installation of plants and continue until initial acceptance.
2. Include watering, weeding, cultivating, mulching, removal of dead material, resetting plants to proper grades or upright position and restoration of the planting saucer, and other necessary operations.
3. If any planting is done after lawn preparation, provide proper protection to lawn areas and repair any damage resulting from planting operation promptly at no cost to the Contract Authority.
4. Contractor is responsible for maintaining plants from their arrival on site until the punch list approval and initial acceptance. Maintenance after initial acceptance of the planting will be performed by the Engineer.
5. Furnish detailed written recommended maintenance program to the Engineer prior to initial acceptance of the various planting areas.
6. Maintenance performed by the Contract Authority in accordance with recommended program will not affect the Contractor's obligation to guarantee and replace defective plants as herein described.

230372.04 METHOD OF MEASUREMENT.

Lump sum. No method of measurement.

230372.05 BASIS OF PAYMENT.

Payment will be at the lump sum contract price for Landscaping, Center Median. This item includes landscaping elements in the center of the roundabouts, including all costs to install plantings as shown in the contract documents. Lump sum price includes furnishing all materials, equipment, and labor necessary for installation of the landscaping elements as shown in contract documents.