

CONSTRUCTION SPECIFICATION

707. DIGGING, TRANSPORTING, PLANTING, AND ESTABLISHMENT OF TREES, SHRUBS AND VINES

1. SCOPE

- a. Description: This work shall consist of digging and preparing plant holes, and of furnishing, transporting, temporary storage, planting and establishment of trees, shrubs, vines and other materials.

It shall also include all incidental operations such as mulching, wrapping, care of living plants and replacement of unsatisfactory plants.

- b. Restrictions:

- (1) Working Conditions: Tree planting shall be performed only when water and soil conditions are favorable for such operations. Operations will be suspended or postponed whenever conditions are unfavorable for such work.
- (2) Equipment: Equipment of a type, size, capacity or condition unsuited for obtaining first class work and expedition of the job shall be restricted to areas designated by the Engineer.

2. MATERIALS

- a. Plants: Trees, Shrubs, Vines and Seedlings. Trees, shrubs, vines and seedlings shall conform to the standards adopted by the American Association of Nurserymen.

- (1) Quality of Plant Material:

- (a) Unless otherwise specified plants shall be high quality nursery grown representatives of their normal species and varieties. They shall have average or normal well developed branches, together with vigorous root systems. Plants shall be free from insects, diseases, sunscald, knots, stubs, or other objectionable disfigurements. Thin weak plants shall not be accepted. Plants must show appearance of normal health and vigor in strict accordance with these specifications.
- (b) Trees shall be free of branches (undetermined) no higher from the ground line than 1/2 the total height of the tree; shall have single leaders, be well branched, and with reasonably straight stems. This requirement shall cover all species unless otherwise specified in detailed specifications.
- (c) Plants shall be true to their name as specified.
- (d) Wherever the word "specimen" is used, it denotes trees that are symmetrical, exceptionally heavy and full branched. When more than one is required, all shall be uniform in size and shape.

(e) The southernmost limits for the source of plant materials shall be one sub-zone south of the site of the work. Plant Hardiness Zones shall be as designated in the current Miscellaneous Publication No. 814, Agricultural Research Service USDA.

(2) Measurement for Size: The size of trees and shrubs is shown on the landscape plans.

(a) Diameter or Caliper Trees up to 4 inch diameter size, shall be measured for diameter 6 inches above the ground line and 12 inches above the ground for larger tree sizes.

(b) Root System: The root system of all plants shall be sufficient to insure plant growth.

1. Bare Root Trees: All bare root trees shall have heavy fibrous root system that has been developed by proper cultural treatment, transplanting and root pruning. The spread of the root system shall be 12 times the trunk diameter (caliper) in inches, plus an additional 6 inches.

| CALIPER (in.) | AVERAGE HEIGHT RANGE (ft.) | MINIMUM ROOT SPREAD (in.) |
|-----------------|----------------------------------|---------------------------------|
| $\frac{1}{2}$ | 5 – 6 | 12 |
| $\frac{3}{4}$ | 6 – 8 | 15 |
| 1 | 8 – 10 | 18 |
| 1 $\frac{1}{4}$ | 8 – 10 | 21 |
| 1 $\frac{1}{2}$ | 10 – 12 | 24 |
| 1 $\frac{3}{4}$ | 10 – 12 | 27 |
| 2 | 12 – 14 | 30 |
| 2 $\frac{1}{2}$ | 12 – 14 | 36 |
| 3 | 14 – 16 | 42 |

2. Bare Root Shrubs: All bare root shrubs shall have a well branched fibrous root system, the minimum spread of which shall be as follows:

| HEIGHT OF PLANT (in.) | MINIMUM SPREAD OF ROOTS (in.) |
|--------------------------|----------------------------------|
| 18 – 24 | 10 |
| 2 – 3 | 11 |
| 3 – 4 | 14 |
| 4 – 5 | 16 |
| 5 - 6 | 18 |
| 6 – 8 | 20 |

3. Container Grown Plants. Container grown plants shall be well rooted and established in the container in which they are growing. They shall be grown in the container for a sufficient length of time for the root system to hold the earth when taken from the container, but not long enough to become pot bound. The size of the containers shall be not less than 75 percent of the ball sizes for comparable balled and burlapped plant material. Containers shall be stable and not deteriorated to a degree that will cause breaking up of the root ball during the planting operations.
4. Balled and Burlapped Plants. Balled and burlapped plants shall be dug with a sufficient quantity of earth taken equally on all sides and bottoms of the plants to include the necessary roots to insure growth. The thickness of depth of the balls shall be sufficient to include the depth of the root according to species. The balls shall be prepared in a workmanlike manner and firmly bound.

With relation to the height and trunk diameter of the plants, the top diameter of the balls of earth must be equal or greater than those given in the schedule of minimum sizes in Table 1. It shall be understood that the ball sizes are the minimum that will be accepted for the corresponding height and trunk diameter of the plants. Where soil types, climatic conditions, or infrequent root pruning or transplanting in the nurseries have caused roots greater than 1/2 inch in thickness to extend beyond the above minimum ball diameter, the ball diameter

must be increased so that no roots greater than 1/2 inch in thickness, except tap roots, are cut.

TABLE 1

SHRUBS and SMALL TREES

| TREE HEIGHT (ft.) | MINIMUM BALL DIAMETER (in.) |
|-------------------|-----------------------------|
| Up to 3 | 12 |
| 3 – 4 | 13 |
| 4 – 5 | 15 |
| 5 – 6 | 16 |
| 6 – 7 | 18 |
| 7 – 8 | 20 |
| 8 – 9 | 22 |
| 9 – 10 | 24 |
| 10 – 12 | 26 |
| 12 – 14 | 32 |
| 14 – 16 | 36 |

STANDARD SHADE TREES

| TREE CALIPER (in.) | MINIMUM BALL DIAMETER(in.) |
|--------------------|----------------------------|
| Up to 1 ½ | 18 |
| 1 ½ to 2 | 22 |
| 2 to 2 ½ | 24 |
| 2 ½ to 3 | 28 |
| 3 to 3 ½ | 32 |
| 3 ½ to 4 | 36 |
| 4 to 4 ½ | 40 |
| 4 ½ to 5 | 44 |
| 5 to 5 ½ | 48 |
| 5 ½ to 6 | 52 |

Ball depth shall be approximately 65% of ball diameter.

5. Collected Stock: When collected plants are specified, the spread of roots, bareroot, shall be 1/3 greater than the spread of roots, bareroot nursery grown. If collected material is moved as balled and burlapped, the minimum ball sizes shall be equal to those specified for the next larger size nursery grown stock, balled and burlapped.

(3) Inspection o Plant Material

- (a) Inspection of plant material will be made at the nursery by the Engineer, or his duly authorized representative, whenever such an examination is deemed needed and practical, and must be in the field (or in storage houses) of the nursery supplying the material. Collected stock will be inspected before digging or lifting.
- (b) Approval of material on such an examination shall not be construed as an acceptance of it. Final acceptance will not be made until the plant material is determined to be in a healthy, growing condition at end of establishment period.
- (c) All plant material, including collected stock, shall comply with the State and Federal laws with respect to inspection for plant diseases and insect infestation. An inspection certificate, required by law to this effect shall accompany each shipment and on arrival the certificate shall be filed with the engineer.

(4) Shipment:

- (a) Each species or variety shall be handled and packed in the manner approved for that plant, having regard for the soil and climatic conditions at the time and place of digging and of delivery, and to the time that will be consumed while in transit of delivery. All precautions that are customary in good trade practice shall be taken to insure the arrival of the plants in good condition.
- (b) Plants shall be packed or covered in such a manner as to insure adequate protection against damage while in transit. The roots of bare root plants shall be carefully protected with wet straw or other suitable material to insure the arrival of the plants at destination with roots in a moist condition.
- (c) When shipment is made by enclosed vehicle, the vehicle shall be adequately ventilated to prevent any "heating" in transit.
- (d) All stock furnished must be legibly tagged with the name or the corresponding key designation as indicated on the plans.

- (e) All material shall conform to size and grade according to the current American Standards for Nursery Stock ASA Z60.1 adopted by the American Association of Nurserymen.
- b. Topsoil: Topsoil shall be free from large roots, sticks, weeds, brush or stones larger than 1 inch in diameter or other litter and waste products. It shall be a loamy mixture having at least 90 percent passing the No. 10 sieve.
- c. Backfill Material: Unless otherwise specified backfill material will consist of a mixture of 3 cubic feet of topsoil and one cubic foot of sand. Fertilizer will not be used unless specified. All backfill material shall be in a loose, friable condition when mixed and at the time of planting. The method of mixing the components shall meet the approval of the Engineer.
- d. Fertilizer: Fertilizer (when required) shall be ready mixed material of an analysis specified on the plans or as directed by the Engineer. In cases where a single nutrient is requested, unless otherwise specified, the analysis will be optional, provided that it carries sufficient filler to insure adequate distribution of the nutrient.

The following information shall be shown on the fertilizer bag or package or on a tag attached thereto:

- (1) Name and address of manufacturer.
 - (2) Name, brand or trade mark.
 - (3) Number of net pounds.
 - (4) Chemical composition or analysis.
 - (5) Guarantee of analysis.
- e. Tree Wrapping Materials:
- (1) The wrapping materials shall be commercially available tree wrapping paper.
 - (2) Cord - Jute twine not less than two ply.
- f. Mulch Material: The mulch material for planting shall be approved by the Engineer. The mulching material shall be uniformly graded and have the ability to completely block sunlight from reaching the surface of the soil. The mulch material will consist of one or more of the following as specified in detailed specifications.
- (1) Processed hardwood tree bark
 - (2) Cottonseed hulls
 - (3) Crushed corn cobs
 - (4) Wood chips
 - (5) Nut shells
 - (6) Buckwheat hulls

- (7) Aggregates
- (8) Small grain straw

g. Materials for staking and guying trees:

(1) Post, stakes, and anchors.

- (a) Metal "tee posts" - length specified in bracing specifications.
- (b) Wooden stakes - 2 1/2" x 2 1/2" length specified in construction details standard drawing IL-687-2 GUY METHOD-TREES UNDER 8'.
- (c) Anchors for guying shall be 36" long wooden 2" x 4"s or auger type anchors, as shown standard drawing IL-688-3 GUY METHOD TREES OVER 8".

(2) Wire - Malleable No. 12 or larger gauge galvanized annealed steel wire.

(3) Hose - New two-ply reinforced hose having an inside diameter of not less than 1/2 inch.

3. CONSTRUCTION

a. Planting Time: Regardless of calendar date, plants must be dormant at the time they arrive at the site of the work or storage site.

- (1) Spring planting of balled and burlapped and container stock shall be performed from the time the soil can be worked until the plant, under field conditions, is not dormant except that: Evergreen planting shall be terminated on June 1 in northern Illinois and May 15 in central and southern Illinois unless otherwise specified in the detailed specifications.
- (2) All bare root plant material shall be planted in the spring. It shall be planted only when the temperature exceeds 35 degrees F. Planting shall terminate on May 15 in northern Illinois on May 5 in central Illinois April 25 in southern Illinois.
- (3) Fall planting of balled and burlapped stock. This work shall start when the plant (under field conditions) becomes dormant and shall stop when the ground cannot be satisfactorily worked except that evergreen planting shall be performed between September 1 and December 1 in central and southern Illinois unless otherwise specified in the detailed specifications.
- (4) Plantings shall not be made in frozen ground, holes shall not be dug in frozen ground and frozen backfill material shall not be used.

b. Digging Plants: Plants shall not be dug until Contractor is ready to transport them or to have them transported from their original locations to the site of the work or

approved storage. The maximum time lapse between digging and being properly loaded for delivery to the site of the work or being placed in approved storage shall be 4 days for balled and burlapped plants and one day for bare root plants. They shall be dug with care avoiding injury to the plants or loss or damage of the roots, particular attention being given to fibrous roots. Immediately after digging, roots shall be protected against drying out and freezing. Bare root plants shall be dug only when air temperatures exceed 35 degrees F. Stock shall not be dug, balled and burlapped when the soil is frozen.

- c. Transportation. During transportation, the contractor or those transporting the plants for the Contractor shall exercise care to prevent injury and drying out of plants. Upon arrival at the temporary storage location or the work site, plants shall be inspected for proper shipping procedures. Should the roots be dried out, large branches broken, ball of earth broken, or loosened, or areas of bark torn, the Engineer may reject the injured tree. When a tree has been so rejected, the Contractor shall at once remove it from the storage: No plant shall remain in temporary storage over the summer or winter unless otherwise specified in the detailed specifications. Plants that are not to be planted immediately shall be protected in the following manner:
- (1) Bare Root Plants may remain on the site of the work only 24 hours prior to being planted or placed in storage. The roots of plants to be placed in storage shall first be puddled in a paste solution of topsoil and water. The plants shall then be protected and kept moist by "heeling-in" the roots or be separated and the roots heeled in a suitable moist soil. If plants are stored in a building, the roots shall be covered with a suitable moist mulch. Planting materials not planted by the end of the planting periods shall be removed from the site and not returned to the site for use.
 - (2) The earth balls of balled and burlapped planting stock shall be kept moist and their solidity carefully preserved. Plants may remain on the work site only 72 hours prior to being planted or placed in storage. To prevent drying out or freezing they shall be stored either in a cool moist storage building or placed in a compact group with a suitable mulch material placed around and between the balls so they are completely covered. The duration of storage and mulch material shall meet the approval of the Engineer.
 - (3) The roots and rooting material of container grown planting stock will be kept moist. To prevent freezing, they shall be stored either in a cool moist storage building or placed in a compact group with a suitable mulch material placed around and between the containers so they are completely covered. The duration of storage for balled and burlapped and container grown deciduous planting stock will terminate in the spring when the plants, under field conditions, break dormancy and in the fall when the ground cannot be satisfactorily worked.

The duration of spring storage for evergreen planting materials shall terminate on June 1 in northern Illinois and on May 15 in central and southern Illinois. Fall storage of evergreen planting material shall terminate on November 1 in Plant Suitability Zone 1 and on December 1 in Plant Suitability Zones II and III.

Planting materials not planted by the end of the storage periods shall be removed from the site and not returned to the site for use.

- e. Layout of Planting. The area to be planted will be finished to line and grade before planting operations are begun. The Contractor shall furnish and place all stakes for locating the planting sites. The stakes will be marked with the species code on the plans. The Contractor will place stakes and outline each area for mass or solid planting or plantings with less than 6' spacing. The spacing and locations of species shall be shown on the plans or as directed by Engineer.
- f. Site Preparation. Unless otherwise specified, the immediate planting areas for trees, shrubs and vines shall be treated prior to planting. An area extending a minimum of 2 feet in all directions from where any plant is to be planted and entire plant beds where the spacing of the plants are 6 feet or less shall be treated. Treatment shall be by either mechanical or chemical means. If a mechanical method is used, the area shall be cultivated to a depth of not less than 2 inches, with equipment approved by the Engineer, until the surface is smooth and free of debris, gullies, clods, stones, grass, weeds and any other living vegetation. If chemical control is used, the treated area does not have to be disturbed prior to planting when the surface is smooth and free of debris, gullies, clods and stones.
- g. Pruning. Pruning shall be the responsibility of the Contractor. It may be done at the nursery or at the planting site in such a manner as to preserve the natural growth habit of the tree, shrub, or vine. Pruning shall meet the approval of the Engineer. All pruning shall be done with sharp tools and in accordance with good horticultural practices.
 - (1) Deciduous Trees. Pruning shall consist of removing twigs and branches as dictated by the growth habit of the trees being pruned. Unless otherwise specified or otherwise directed by the Engineer, branches shall not be removed from a height exceeding 1/2 the total height of the tree, neither shall the leader or terminal buds of the leader be removed unless specified.
 - (2) Deciduous Shrubs. Unless otherwise specified, multi-stemmed shrubs shall be cut back to one-half the height that they attained in the nursery during the previous growing season. Single stemmed shrubs shall be pruned in the same manner as deciduous trees.
 - (3) Evergreens. Evergreens shall not be pruned except to remove broken branches and roots.

The ends of all broken roots and damaged roots shall be pruned before planting. All broken twigs, shrubs, limbs, stubs, and improper cuts from previous pruning shall be removed either before or within 2 days following planting.

- h. Excavation of Plant Holes: The sides of all plant holes shall be sloped to 1:1 or flatter and the bottoms shall be horizontal. On slopes, the depth of excavation shall be measured at the center of the hole. Unless specified in the detailed specifications, watering saucers will be constructed around all single plants where the spacing is 6 feet or more on centers. The saucers shall be a minimum of 4 feet in diameter and a minimum of 4 inches deep unless otherwise specified in detailed specifications. The saucers may be all or partially above or below the normal ground elevation. Material excavated from the plant hole shall be used as needed to construct the watering saucer and the remainder will be disposed of as indicated in the detailed specifications.
 - (1) Excavation of holes for planting balled and burlapped or container grown trees, shrubs, or vines. The holes shall be dug at the locations indicated by the stakes or on the plans. They shall be excavated 2 feet greater in diameter than the earthen balls or containers. Unless otherwise specified in the detailed specifications excavate to a depth 1 to 2 inches greater than the depth of the ball or container, plus depth needed for construction of a watering saucer when required.
 - (2) Plant holes for bare rooted trees, shrubs, and vines shall be wide enough and deep enough to accommodate the spread out roots of the plants. The holes will be deep enough to allow the plant to be planted one inch deeper than it grew in the nursery, plus depth needed for construction of a watering saucer when required.
 - (3) When planting trees, shrubs, and vines all stones, debris, and all living herbaceous and wood material, within the area to be mulched shall be killed or removed.
- i. Planting Procedures. All plants shall be planted in the plumb position. Plants will be set at the same depth or up to one inch deeper than they grew in the nursery.

Prepared backfill material shall be placed around the balls of balled and burlapped plants, around the container or mass of soil and roots of container grown plants or around the roots of bare rooted plants being planted in excavated holes. See standard drawing IL-689 PLANTING PROCEDURES FOR SHRUBS for shrub planting detail and standard drawing IL-687-2 GUY METHOD-TREES UNDER 8' for tree planting detail or standard drawing No. IL-685-PLANTING PROCEDURES FOR BALLED AND BURLAPPED (B&B) or CONTAINER-GROWN TREES AND SHRUBS.

Tamp the backfill material during placement and thoroughly water after backfilling has been completed. This watering shall completely saturate planting. After the

ground settles, as a result of watering, the voids shall be filled to the proper level with prepared backfill material. Approved watering equipment shall be at the site for the work and in operating condition prior to starting the planting operation.

(1) Balled and Burlapped Plants. Remove all cords, wires and burlap from the trunk of the plant during or at the end of the backfilling operation.

(2) Container Grown Plants. Prior to placing the plant in the excavated hole, the container shall be removed with care so as to not disturb the soil in which the root system is growing. Care shall be taken during backfilling operations not to destroy the solidity of the mass of soil. Containers of material that will decompose within one growing season after planting need not be moved.

(3) Bare Root Plants.

(a) When planting in excavated holes the roots shall be carefully spread in a natural position and prepared backfill material shall be worked in around the roots to eliminate air pockets.

(b) When planting in a slot made with a tree planting machine or a planting bar (a special planting spade manufactured for planting seedlings), the slot shall be of adequate depth to allow the roots to be fully extended vertically when the seedling is placed in the slot at the proper depth. Care shall be taken when planting to prevent the end of the roots from being turned upward. Pruning for large massive root systems into balance with top growth will help in ease of planting and possibly prevent "J" roots from occurring. After placing the seedling in the slot at the proper depth, the slot shall be completely closed to eliminate all air pockets. These plants shall not be watered unless otherwise specified.

j. Mulch Cover. Within 5 days after planting, a mulch cover shall be placed around all plants, unless otherwise specified, to control the growth of competing vegetation. Unless otherwise specified an area extending a minimum of 2 feet from any plants spaced greater than 6 feet apart shall be mulched. Where plants are on less than 6 foot spacing the entire bed or areas, plus an area extending a minimum of 3 feet beyond the peripherals of the plants, shall be mulched unless otherwise specified.

Small grain straw shall be relatively free of any viable seed and shall be applied evenly at the rate of 3/4 pound per square foot unless otherwise specified.

All other mulching material shall be applied to a minimum depth of 6 inches. Depth of mulching material should not exceed 6 inches. The mulch shall not be covered with hold down material unless specified in detailed specifications.

k. Wrapping. Within 10 days after planting, all deciduous trees shall be wrapped from the ground to the lowest major branch unless otherwise specified in detailed specifications.

Unless otherwise specified in the detailed specifications, the following method of wrapping shall be used. Bare root stock does not have to be wrapped.

The tree wrapping paper shall be wrapped tightly around the trunk from the bottom to the lowest major branch with a minimum of one inch overlap. At top and bottom and at 2 intermediate intervals not greater than 18 inches, the wrapping paper shall be secured with ties of stout cord that will stretch with the growth of the tree. Remove after one growing season from fast growing species.

- I. Bracing. Unless otherwise specified all trees over 4 feet in height shall be braced within 10 days after planting.

- (1) Trees 4 to 8 feet tall shall be braced by securing each tree to (2) metal "tee" posts or two (2) 2 1/2" x 2 1/2" wooden stakes. The wooden stakes shall be durable for a minimum for 12 months after being placed in the ground. See standard drawing IL-687-2 GUY METHOD - TREES UNDER 8'.

Use stakes or posts with a minimum length of 6.5 feet if they are placed adjacent to the ball, container or bare rooted plant. Use stakes or post with a minimum length of 6 feet if they are placed a minimum of 6 inches outside the area excavated for planting.

Placement of stakes or posts:

Balled and burlapped - beyond the edge of the ball.

Container stock - beyond the edge of the container.

Bare root stock - 12 to 15 inches from the trunk of the tree.

Place one stake or post on the west side of the tree and one on the east side. Drive the stakes or posts into the ground leaving 4 feet to 4.5 feet above the ground. The anchor plate on the metal post shall be perpendicular to a line between the tree and the post.

Secure each tree firmly to each of the two posts or stakes with No. 12 or larger malleable wire. The wires shall be installed on a horizontal plane at a height approximately one half that of the tree. The portion of the wire in contact with the tree shall be enclosed in 1/2" two ply reinforced hose.

The area inside the loop around the tree shall not be less than 2 times the cross sectional area of the tree at the contact point. Provisions shall be made to tighten the wires if they become loose.

- (2) Trees over 8 ft. in height shall be braced by using 3 guy wires and 3 anchors per tree. See standard drawing IL-688-3 GUY METHOD - TREES OVER 8'. The guy wires shall be placed around the tree immediately above branches located from one-half to two-thirds the height of the tree. No more than one

guy wire shall be placed above any branch if a higher branch exists. The portion of the guy wire that contacts the tree shall be enclosed in the 1/2" two ply reinforced hose. The inside area of the loop around the tree shall not be less than 2 times the cross sectional area of the tree at the point of contact.

The guy wire shall be securely fastened to an anchor post or stake, at or below the ground line, which is driven at least 30 inches into the ground at an angle that is perpendicular to the line of pull. Distance of anchors from the base of the tree shall not be less than two-thirds nor greater than the vertical distance from the base of the tree and the point where the guy wire contacts the tree.

One anchor shall be placed on the west side of the tree and the others placed so all guy wires are equidistant. Provision will be made to tighten the guy wires if they become loose.

4. ESTABLISHMENT

During the period of establishment, the Contractor shall be responsible for properly caring for plants to assure maximum possible survival and vigorous healthy plants. Such care will consist of, but not be limited to the following work:

- a. Watering
- b. Replenishing mulch
- c. Repairing stakes, guy wire, etc.
- d. Restoring saucers
- e. Weeding
- f. Seasonal spraying (insect/disease problems)
- g. Repairing tree wrapping and ties
- h. Fertilizing
- i. Application of herbicide

The period of establishment shall extend from the time the plants are planted through the month of September and shall not be less than ninety (90) calendar days.

5. GUARANTEE

Prior to the September following the planting operations, the Contractor shall contact the Engineer to inspect the planted areas. At the end of the establishment period in September, the Engineer will determine the number and species of missing, dead, diseased, or unhealthy plants and will inform the Contractor in writing which plants are rejected. All rejected plants shall be replaced, within the next appropriate planting period.

No additional guarantee will be required for replacement plants. The guarantee and establishment period will end on the date of this inspection and said inspection will

be considered final provided the Contractor has complied with the following requirements:

- a. Complete replacement of dead, missing, and defective plant material.
- b. Mulch and weed plant beds and plant saucers. Just prior to this inspection, treat these areas to an application of approved pre-emergence herbicide, if chemical site preparation was originally used.
- c. Assure stakes, guys, and required tree wrappings are in good condition.
- d. Complete remedial measures directed by the Engineer to ensure plant survival.
- e. Repair damage caused while making plant replacements.

6. SUPPLEMENTAL WATERING OF PLANTINGS

This work shall consist of supplemental watering of plantings. Supplemental watering of balled and burlapped, containerized planting stock and bare root planting stock planted in excavated holes shall be performed at least once every 30 days from the date of planting until the month of September, unless the Engineer determines that it is needed more or less often due to moisture provided by rainfall. Slot planted trees, shrubs, and vines shall not be watered. Sufficient water will be applied at each watering to thoroughly saturate the soil in an area extending a minimum of 12 inches beyond and below the sides and bottom of the hole excavated for planting.

7. MEASUREMENT AND PAYMENT

For items for which specific unit prices are established in the contract, each type and size of plant will be counted. Payment for each type and size of plant will be made at a contract unit price for that type and size of plant. Such payment will constitute full compensation for all labor, materials, equipment and other items necessary and incidental to the performance of the work including:

- a. Replacement of any plants required to fulfill the guarantee provision of this specification.
- b. Removal from the site and replacement of any planting stock not conforming to the specification.
- c. Care of plants during period of establishment.

The supplemental water shall be measured and paid for at the contract unit price per 1,000 gallons of water applied. Such payment shall constitute full compensation for all labor, equipment, materials, and all other items necessary and incidental to watering.

Compensation for any items of work described in the contract but not listed in the bid schedule will be included in the payment for the item of work to which it is made

subsidiary. Such items and the items to which they are subsidiary are identified in the detailed specifications.