SPECIFICATIONS (Con't)

PLANT MATERIALS:

General: Provide freshly dug trees. Do not use trees which have been in cold storage or heeled-in. Do not prune prior to delivery except as approved by the Landscape Architect. Provide adequate protection of root systems and balls from drying winds and sun. Do not bend or bind-tie trees in such manner as to damage bark, break branches or destroy natural shade. Provide protective covering during delivery. Do not drop balled and burlapped stock during delivery.

Nomenclature: Scientific and common names of plants herein specified conform with the approved names given in Standardized Plant Names prepared by the American Joint Committee on Horticultural Nomenclature.

Plants Required: The plant quantity, size, manner in which to be furnished, scientific and common names are shown in the Plant List. In case of any discrepancy between the Plant List and the actual planting plan, the planting plan shall govern.

Quality and Size: Plants shall be in accordance with ANSI Z60.1. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous and free from disease and insect infestations. The minimum acceptable sizes of all plants, measured before pruning with branches in normal position, shall conform to the measurements specified on the Drawings or in the list of plants to be furnished. Plants larger in size than specified may be used with the approval of the Landscape Architect, but at no change in the contract price. If larger plants are used, the ball of earth or spread of roots shall be increased proportionately.

Inspection: The Landscape Contractor shall be responsible for all inspection and approval of plant material that may be required by state, federal and other authorities, and he shall secure any permits and certificates that may be required.

All plants shall be subject to inspection and approval at place of growth before digging, or upon delivery; such approval shall not impair the right of rejection at the project site during progress of work. Rejected plants shall be removed immediately from the project site.

Balled and Burlapped Plants: Plants designated "B&B" shall be adequately balled with firm, natural balls of soil in sizes and ratios conforming to Table of Minimum Ball Sizes as set forth in ANSI Z60.1. Balls shall be firmly wrapped with burlap. Broken balls will not be accepted.

Container-Grown Plants: Plants designated container shall have been grown in pots, cans, or boxes for a minimum of 6 months and a maximum of 2 years, and shall have sufficient roots to hold earth together after removal from containers without being rootbound.

Options as to Method: Substitutions shall be made only upon submission of proof that any particular plant, as specified, is not obtainable. Upon submission of proof, the Landscape Architect shall prepare a change order providing for use of the nearest equivalent obtainable size or variety of plant having the same essential characteristics with an equitable adjustment of the contract price.

PART 3 - EXECUTION

Planting Season: The planting dates for plant material shall be as follows:

Spring Planting Dates	Fall Planting Dates
February 15 to May 31 inclusive	September 15 to December 31 inclusive

Actual planting shall be performed only when weather and soil conditions are suitable and in accordance with locally accepted practice, as approved by the Landscape Architect. Deviation from the above planting dates will be permitted only when approved by the Landscape Architect.

Temporary Storage and Heeling-in: When temporary storage or heeling-in is required, the Contractor shall provide and prepare a suitable heeling ground or heeling-in nursery conveniently located near the planting site.

Plant material unloaded and accepted by the Landscape Architect shall be immediately heeled-in or transported to the planting site and planted. Material left out of ground overnight or left with its roots bare to the sun, or otherwise unprotected during transit, unloading or storage shall be rejected by the Landscape Architect if, in his judgment, such lack of protection has caused damage to the roots of the plant or in any other way injured the plant material.

Planting:

Layout: ~~All tree~~ locations shall be staked in the field by the ~~contractor~~ and verified by the Landscape Architect prior to planting. Rocks and other underground obstructions shall be removed to a depth necessary to permit proper planting according to plans and specifications. Where below-ground or overhead obstructions are encountered, the trees shall be relocated ~~by the Landscape Architect to areas approved by the Engineer~~.

Plant Pits: Excavation of trenches, plant pits, and planting beds shall extend to the required depths below finished grade as indicated on the Drawings. Plant pits shall be square or circular and have vertical sides and flat bottoms.

Preparation of Planting Beds:

~~Soil Additive 2 inches of Soil Conditioner shall be added to the planting beds. Till in to a depth of 10 inches.~~

Soil in the Bed: Topsoil shall be added to the plant beds as needed to maintain smooth, even surface, conforming to established grade. Soil in the beds shall be moist at the time the plants are set.

Pre-emergent Herbicide: Procedure - Application of Pre-emergent Herbicide to Planting Beds: After soil preparation of the beds, and prior to any shrub plantings, all existing weeds must be removed from the bed. Then, thoroughly incorporate the Treflan in a uniform manner into the top 3 inches of topsoil by the use of tillers or by hoeing. The Treflan must be applied at the rate of 2 pounds per 1,000 square feet. Within 3 hours of Treflan application, the soil must be thoroughly watered by uniform spraying. (This watering may occur prior to, or after shrub planting and mulch placement.)

Fertilizer: Fertilize topsoil for planting trees, shrubs and ground cover with fertilizer hereinbefore specified. Apply and mix fertilizer at the rate of not less than 0.25 pound per cubic foot of prepared backfill.

Setting and Backfilling: Set balled and burlapped stock on layer of compacted planting soil mixture, plumb in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. Remove burlap from tops of balls but do not remove from under balls. Do not use stock if ball is cracked or broken before or during planting operation. When set, place additional backfill around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.

Containers of container-grown stock shall be cut open and the plants carefully removed so that the earth around the roots of the plant remains unbroken. Container plants shall be set and backfilled in the same manner as balled plants.

Mulch: The mulch material shall be placed at a depth hereinbefore specified and watered to keep from scattering in the wind.

Erosion Control Net: All planting beds located on sloping section of overpass approaches shall receive an erosion control net to hold mulch down and prevent blowing and washing away of mulch. Net to be installed over 4" of mulch using staples as recommended by manufacturer. Net to be cut to fit around plants and stapled down. Cover erosion control net with remaining 2" of mulch.

Pruning: All trees, shrubs and ground cover shall be neatly pruned after planting in accordance with the best standard practices and as directed by the Landscape Architect. The tree shall be pruned to preserve its natural form and character and in a manner appropriate to its particular requirements. In general, no more than one-third of the deciduous trees shall be removed by thinning or shortening of branches, but no central leaders shall be cut. Remove only injured or dead branches from flowering trees, if any. All pruning shall be done with clean, sharp tools. Cuts 1/2-inch in diameter and larger shall be immediately covered with an approved tree paint having an asphaltic base. Remove and replace excessively pruned and misformed stock resulting from improper pruning.

Wrapping: Promptly after planting, the trunks of all deciduous trees shall be spirally wrapped with wrapping material specified under "Materials" to the height of the first branches or to the height directed. Trees shall be inspected for injury to trunks, insect infestation and improper pruning before wrapping. Wrapping shall be taped securely in place.

Staking: Staking shall be completed by the end of the day for all materials planted during the day that require staking.

~~All deciduous trees shall be staked with two vertical stakes, placed on opposite sides of the tree outside of the ball and planting soil. All coniferous trees shall be staked with one stake set diagonally as per detail.~~

~~All stakes shall be oriented to be in line parallel with the normal prevailing winds or as directed by the Landscape Architect. All vertical stakes shall be driven to true vertical position and the tops of stakes shall be level and maximum height of 5 feet.~~

Clean-up: Any soil or similar material which has been brought onto paved areas by hauling operations or otherwise shall be removed promptly, keeping the area clean at all times. Upon completion of the planting, all excess soil, stones, and debris which have not previously been cleaned-up shall be removed from the site or disposed of, as directed by the Landscape Architect. All ground area disturbed as a result of planting operations shall be restored to its original condition or to the desired new appearance.

MAINTENANCE:

General: Maintenance operations shall begin immediately after each plant is planted and shall be continued as required until final acceptance by the Landscape Architect. Plants shall be kept in a healthy growing condition by pruning, spraying, and any other necessary operation of maintenance. Planting beds shall be kept free of weeds, grass and other undesired vegetation growth. Plants shall be inspected ~~at least twice per week~~ by the Landscape Contractor during the maintenance period and needed maintenance performed promptly.

Application of Fertilizer: All trees, shrubs and ground cover shall be fertillized with 2 lb. Nitrogen per 1,000 sq.ft. in February and June during the guarantee period.

Watering: Watering of trees, shrubs and ground cover shall be accomplished by the Landscape Contractor until final acceptance, and during maintenance period.

Replacement of Plants During Maintenance Period: During the maintenance period, plants which die or which the Landscape Architect finds to be in an unhealthy or badly impaired condition shall be replaced by the Contractor during the specified planting season.

ACCEPTANCE, GUARANTEE AND REPLACEMENT:

Acceptance: At the conclusion of plant installation, an inspection shall be made by the Landscape Architect. The purpose of this inspection shall be for the acceptance of the contract work. After the inspection, the Landscape Contractor will be notified in writing of acceptance of the planting work exclusive of possible replacement of plants subject to guarantee. If there are any deficiencies in the maintenance, the Landscape Contractor will be notified and the work subject to reinspection before final acceptance.

~~Guarantee: Plantings shall be guaranteed for one complete planting season. Fall plantings which are finally accepted in the fall must be guaranteed until the following September 1. Plantings finally approved in the spring shall be guaranteed until the following October 1. During the guarantee period, the Landscape Contractor shall inspect the plant materials twice a month (or more as necessary) for watering and other maintenance conditions that might be injurious to the plant material. Should a condition exist (i.e., tree saucer excessively dry), the Landscape Contractor shall notify the Owner in writing with a copy to the Landscape Architect.~~

Replacement: At the end of the guarantee period, the Landscape Architect will make another inspection to determine the project condition. As determined by the Landscape Architect, dead and deficient material will be noted and, as soon as seasonal conditions permit, shall be removed from the site and replaced with plants of the same species and sizes as originally specified. Such replacements shall be made in same manner as specified for the original plantings and at no extra cost to the Owner. ~~The guarantee on plants shall be limited to 1 replacement.~~ Damage to existing plant materials, sidewalk, etc., during plant replacements shall be repaired without cost to the Owner.

END OF SECTION 02490

ENGINEERING DIVISION — CITY OF WICHITA

K-96 LANDSCAPING/BEAUTIFICATION IMPROVEMENTS

LANDSCAPE SPECIFICATIONS

K-96 BYPASS
I-135 TO CITY LIMITS

PDS DESIGN GROUP Wichita, Kansas

MID-KANSAS ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by		Checked by	
Drawn by		Date 4/10/89	Job No. 3064

Rev. 8/4/89