PART 1 - GENERAL

1.1 SUMMARY

A. Includes But Not Limited To:
   1. Furnish and install landscaping plants as described in Contract Documents.

B. Related Sections:
   1. Section 32 9001: Common Planting Requirements.

1.2 REFERENCES

A. American Nursery & Landscape Association / American National Standards Institute:
   1. ANLA / ANSI Z60.1-2004, 'American Standard for Nursery Stock.'

1.3 SUBMITTALS

A. Samples: Top dressing mulch for approval before delivery to site.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver healthy and vigorous trees and shrubs.
   1. Do not prune before delivery, except as approved by Architect.
   2. Protect bark, branches, and root systems from sun scald, drying, whipping, and other handling and tying damage.
   3. Do not bend or bind-tie trees or shrubs in such a manner as to destroy natural shape.
   4. Provide protective covering during delivery.

B. Handle balled stock by root ball or container. Do not drop trees and shrubs during delivery.

C. Deliver trees, shrubs, ground covers, and plants after preparations for planting have been completed and install immediately.
   1. If planting is delayed more than six hours after delivery, set planting materials in shade and protect from weather and mechanical damage.
   2. Set balled stock on ground and cover ball with soil, saw dust, or other acceptable material approved by Architect. Do not place on pavement.
   3. Do not remove container-grown stock from containers before time of planting.
   4. Water root systems of trees and shrubs stored on site with fine mist spray. Water as often as necessary to maintain root systems in moist condition.

1.5 SEQUENCING

A. Do not commence work of this Section until work of Section 32 9113 has been completed and approved.

1.6 WARRANTY:

A. Provide written warranties confirming following:
1. Furnished shrubs, ground covers, and vines guaranteed to live and remain in strong, vigorous, and healthy condition for 90 days minimum from date landscape installation is accepted as complete.

2. Trees guaranteed to live and remain in strong, vigorous, and healthy condition for one year from date landscape installation is accepted as complete.

1.7 OWNER’S INSTRUCTIONS

A. Provide written instructions covering maintenance requirements by Owner for first 60 days of guarantee period beyond Contract maintenance period specified in Section 32 0101.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Plants:

1. Conform to requirements of Plant List and Key on Drawings and to ANSI Z60.1.

2. Nomenclature: Plant names used in Plant List conform to ‘Standardized Plant Names’ by American Joint Committee on Horticultural Nomenclature except in cases not covered. In these instances, follow custom of nursery trade. Plants shall bear a tag showing the genus, species, and variety of at least 10 percent of each species delivered to site.

3. Quality:

a. Plants shall be sound, healthy, vigorous, free from plant disease, insect pests or their eggs, noxious weeds, and have healthy, normal root systems. Container stock shall be well established and free of excessive root-bound conditions.

b. Do not prune plants or top trees prior to delivery.

c. Plant materials shall be subject to approval by Architect as to size, health, quality, and character.

d. Bare root trees are not acceptable.

e. Provide plant materials from licensed nursery or grower.

4. Measurements:

a. Measure height and spread of specimen plant materials with branches in their normal position as indicated on Drawings or Plant List.

b. Measurement should be average of plant, not greatest diameter. For example, plant measuring 15 inches 375 mm in widest direction and 9 inches 225 mm in narrowest would be classified as 12 inch 300 mm stock.

c. Plants properly trimmed and transplanted should measure same in every direction.

d. Measure caliper of trees 6 inches 150 mm above surface of ground.

e. Where caliper or other dimensions of plant materials are omitted from Plant List, plant materials shall be normal stock for type listed.

f. Plant materials larger than those specified may be supplied, with prior written approval of Architect, and:

1) If complying with Contract Document requirements in all other respects.

2) If at no additional cost to Owner.

3) If sizes of roots or balls are increased proportionately.

5. Shape and Form:

a. Plant materials shall be symmetrical or typical for variety and species and conform to measurements specified in Plant List.

b. Well grown material will generally have height equal to or greater than spread. However, spread shall not be less than 2/3's of height.

B. Planting Mix: Mixture of three parts good topsoil and one part rotted composted manure.

C. Planting Tablets: 21 gram Agriform 20-10-5.

D. Tree Stakes:
1. Type Two Acceptable Products:
   a. 2 inch 50 mm diameter Lodgepole Pine.
   b. Steel T-posts.
   c. Equal as approved by Architect before installation. See Section 01 6000.

E. Tree Staking Ties:
1. Type Two Acceptable Products:
   a. 32 inch 800 mm Cinch-Tie tree ties by V.I.T. Products Inc, Escondido, CA
   b. Equal as approved by Architect before installation. See Section 01 6000.

F. Tree Guys:
1. Type Two Acceptable Products:
   a. Duckbill Model 68DTS guying kit.
   b. Equal as approved by Architect before installation. See Section 01 6000.

G. Pre-Emergent Herbicide:
1. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   c. Ronstar G granular by Bayer CropScience, Monheim, Germany

H. Weed Barrier:
1. Type Two Acceptable Products:
   a. DeWitt 4.1 oz 20 year woven polypropylene weed barrier.
   b. 3.5 oz spunbonded 20 year fabric.
   c. Equal as approved by Architect before bidding. See Section 01 6000.

I. Bark Or Wood Top Dressing Mulch:
1. Type Two Acceptable Products:
   a. Medium size Fir bark.
   b. Medium or large size Redwood bark.
   c. Shredded pine bark.
   d. Shredded Cedar.
   e. Equal as approved by Architect before installation. See Section 01 6000.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Before proceeding with work, check and verify dimensions and quantities. Report variations between Drawings and site to Architect before proceeding with work of this Section.

B. Plant totals are for convenience only and are not guaranteed. Verify amounts shown on Drawings. All planting indicated on Drawings is required unless indicated otherwise.

3.2 PREPARATION

A. Layout individual tree and shrub locations and areas for multiple plantings. Stake locations and outline areas. Secure Architect's acceptance before planting. Make minor adjustments as may be requested.
3.3 INSTALLATION

A. Excavation:
1. If underground construction work or obstructions are encountered in excavation of planting holes, Architect will select alternate locations.
2. Plant Excavation Size:
   a. Diameter: Twice diameter of root ball or container minimum.
   b. Depth:
      1) Shrubs: Twice diameter of root ball or container minimum.
      2) Trees: 12 inches 300 mm minimum deeper than bottom of root ball.
3. Unless excavated material meets topsoil requirements as specified in Section 31 9113, remove from landscape areas and do not use for landscaping purposes.
4. Roughen sides and bottoms of excavations.
5. After tree planting holes are excavated to proper depth, auger 6 inch 1500 mm diameter hole 4 feet 1 200 mm deep in low point of each excavation and fill with tamped planting mix.

B. Planting:
1. Before planting, test two typical planting excavations with water and verify that water drains away within two hours. Inform Architect in writing if water does not drain properly. Do not plant trees or shrubs in holes that do not properly drain.
2. Removing Binders And Containers:
   a. Remove top one / third of wire basket and burlap binders.
   b. Remove plastic and twine binders from around root ball and tree trunk.
   c. Remove wood boxes from around root ball. Remove box bottoms before positioning plant in hole. After plant is partially planted, remove remainder of box without injuring root ball.
3. Plant immediately after removing binding material and containers. Place trees and shrubs in holes so, after watering and settling, top of root ball shall be approximately one inch 25 mm higher than finished grade.
4. Properly cut off broken or frayed roots.
5. Center plant in hole and backfill with specified planting mix. Except in heavy clay soils, make ring of mounded soil around hole perimeter to form watering basin.
6. Add planting tablets in plant pit as follows. Place tablets in relation to root ball as recommended by Manufacturer.
   a. One Gallon 4.5 L Shrub: 1 tablet.
   b. 5 Gallon 23 L Shrub / Tree: 3 tablets.
   c. 15 Gallon 68 L Tree: 4 tablets.
   d. 24 inch 600 mm Box Tree: 6 Tablets.
7. Fill landscape excavations tamped planting mix. Settle by firming and watering to ensure top of ball one inch higher than surrounding soil.
8. Do not use muddy soil for backfilling.
9. Make adjustments in positions of plants as directed by Architect.
10. Thoroughly water trees and shrubs immediately after planting.
11. At base of each tree, leave 36 inch 900 mm diameter circle free of any grass.

C. Supports for New Trees:
1. Provide new supports for trees noted on Drawings to be staked.
   a. Remove nursery stakes delivered with and attached to trees.
   b. Support shall consist of at least two tree stakes driven into hole base before backfill so roots are not damaged. Place stakes vertically and run parallel to tree trunk. Install stakes so 3 feet 900 mm of stake length is below finish grade.
   c. Place tree ties 6 to 12 inches 150 to 300 mm below crotch of main tree canopy. Second set of tree ties may be required 18 to 24 inches 450 to 600 mm above finish grade, if directed by Architect.
   d. Remove tops of tree stakes so top of stake is 6 inches 150 mm below main tree canopy to prevent damage to tree branches and canopy growth.
2. Provide guying kits to support 24 inch 600 mm box and larger trees.

D. Vines: Remove from stakes, untie, and securely fasten to wall or fence next to which they are planted.
E. Ground Covers: Container-grown unless otherwise specified on Drawings. Space evenly to produce a uniform effect, staggered in rows and intervals shown.

F. Post Planting Weed Control:
1. Apply specified pre-emergent herbicide to shrub and ground cover planting areas and grass-free areas at tree bases after completion of planting.
2. Areas shall be free of existing weed growth prior to application of herbicide.

G. Weed Barrier Fabric:
1. After planting and application or herbicide in shrub beds, apply covering of specified weed barrier fabric.
2. Achieve 100 percent coverage over ground areas.
3. Overlap seams 6 inches 150 mm minimum.
4. Staple at 5 feet on center each way with two at each corner.

H. Mulching:
1. After application of herbicide, mulch shrub and ground cover planting areas with 2 1/2 inches 62 mm deep layer of specified top dressing mulch.
2. Cover grass-free area at tree bases with weed barrier and 2 1/2 inches 62 mm of top dressing mulch.
3. Place top dressing mulch to uniform depth and rake to neat finished appearance.

END OF SECTION