

SECTION 329300

PLANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. General: This Section includes Plants in accordance with Contract Documents.
- B. Summary of Work: Provide all labor, equipment and materials required for the procurement, delivery, storage and handling, soil preparation, fine grading, planting and maintenance of trees, shrubs, vines and ground cover as indicated on Drawings and as specified herein.
- C. Related Sections:
 - 1. Division 01 for Special Project Procedures.
 - 2. Grading – Refer to Drawings.
 - 3. Specification Section 320190 – Landscape Maintenance.
 - 4. Specification Section 329100 – Soil Preparation.
 - 5. Specification Section 328400 – Planting Irrigation.

1.2 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs and detritus.
- C. Finish Grade: Elevation of finished surface of planting soil.
- D. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- E. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- F. Pests: Living organisms that occur where they are not desired, or that cause damage to plants, animals or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles and mice), unwanted plants (weeds), fungi, bacteria and viruses.

- G. Planting Soil: Standardized topsoil, existing native surface topsoil, existing in-place surface soil, imported topsoil or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- H. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
- I. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- J. Subsoil: All soil beneath the topsoil layer of the soil profile and typified by the lack of organic matter and soil organisms.
- K. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project Site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, including soils.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates.
- B. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of plants during a calendar year.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed planting work similar in material, design and extent to that indicated for this Project and whose work has resulted in planting with a record of successful in-service performance.
- B. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project Site when work is in progress.
 - 1. Pesticide Applicator: State licensed, commercial.
- C. Soil Analysis: For each un-amended soil type, furnish soil analysis and a written report by a qualified Soil Testing Laboratory.
 - 1. The Soil Testing Laboratory shall oversee soil sampling.
 - 2. Report suitability of tested soil for plant growth.

- a. State recommendations for nitrogen, phosphorus and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals; if present, provide additional recommendations for corrective action.
- D. Provide quality, size, genus, species and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.
- E. Pre-Installation Conference: Conduct conference at Project Site.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Do not prune trees and shrubs before delivery. Protect bark, branches and root systems from sun scald, drying, wind burn, sweating, whipping and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- B. Handle planting stock by root ball.
- C. Deliver plants after preparations for planting have been completed and install immediately. If planting is delayed more than 6 hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage and keep roots moist.

1.7 WARRANTY

- A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner or incidents that are beyond Contractor's control.
 - b. Structural failures including plantings falling or blowing over.
 - 2. Warranty Periods from Date of **Substantial Completion**:
 - a. Trees, Shrubs, Vines and Ornamental Grasses: **12** months.
 - b. Ground Covers, Biennials, Perennials and Other Plants: **12** months.

1.8 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Provide maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established but for not less than maintenance period below.

1. Maintenance Period for Trees and Shrubs: **3 months from date Substantial Completion.**
2. Maintenance Period for Ground Cover and Other Plants: **3 months from date of Substantial Completion.**

PART 2 - PRODUCTS

2.1 PLANT MATERIAL

- A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing and other features indicated in Plant Schedule or Plant Legend on Drawings, complying with ANSI Z60.1 and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae and defects such as knots, sun scald, injuries, abrasions and disfigurement.
- B. Root Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.

2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 1. Class: O, with a minimum of 95 percent passing through No. 8 (2.36-mm) sieve and a minimum of 55 percent passing through No. 60 (0.25-mm) sieve.
- B. Sulfur: Granular, biodegradable and containing a minimum of 90 percent sulfur with a minimum of 99 percent passing through No. 6 (3.35-mm) sieve and a maximum of 10 percent passing through No. 40 (0.425-mm) sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Aluminum Sulfate: Commercial grade, unadulterated.
- E. Perlite: Horticultural perlite, soil amendment grade.
- F. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 (0.30-mm) sieve.
- G. Sand: Clean, washed, natural or manufactured and free of toxic materials.
- H. Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.
- I. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

2.3 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable and weed-free organic matter, pH range of **5.5 to 8**; moisture content **35 to 55 percent** by weight; 100 percent passing through **1/2-inch (13-mm)** sieve; soluble salt content of **5 to 10** decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or granular texture, with a pH range of 3.4 to 4.8.
- C. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5 and having a water-absorbing capacity of 1100 to 2000 percent.
- D. Wood Derivatives: Decomposed, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
- E. Manure: Well-rotted, un-leached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris and material harmful to plant growth.

2.4 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and **20** percent phosphoric acid.
- B. Commercial Fertilizer: Commercial grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous and potassium in the following composition.
 - 1. Composition: 1 lb./1000 sq. ft. (0.45 kg/92.9 sq. m) of actual nitrogen, 4 percent phosphorous and 2 percent potassium, by weight.
- C. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus and potassium in the following composition.
 - 1. Composition: 20 percent nitrogen, 10 percent phosphorous and 10 percent potassium, by weight.
- D. Planting Tablets: Tightly compressed chip type, long-lasting, slow-release, commercial grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.
 - 1. Size: **21-gram** tablets.
 - 2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous and 5 percent potassium, by weight plus micronutrients.

2.5 PLANTING SOILS

- A. Planting Soil **ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 2 percent organic material content.** Verify suitability of soil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris and other extraneous materials harmful to plant growth. Mix soil with soil amendments per agricultural soils report provided by contractor.

2.6 MULCHES

- A. Organic Mulch: **Ground or shredded bark.**
- B. Compost Mulch: Well-composted, stable and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch (25-mm) sieve; soluble salt content of **2 to 5** decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.

2.7 WEED CONTROL BARRIERS

- A. Nonwoven Geotextile Filter Fabric: Polypropylene or polyester fabric, 3 oz./sq. yd. (101g/sq. m) minimum.
- B. Composite Fabric: Woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, 4.8 oz./sq. yd. (162 g/sq. m).

2.8 PESTICIDES

- A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PLANTING AREA ESTABLISHMENT

- A. Loosen subgrade of planting areas **in accordance with the recommendations of Agricultural Soils Test.** Remove stones larger than **1 inch (25 mm)** in any dimension and sticks, roots, rubbish and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface and thoroughly blend planting soil.

- B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges and fill depressions to meet finish grades.

3.2 EXCAVATION FOR TREES AND SHRUBS

- A. Planting Pits and Trenches: Excavate planting pits as indicated on Drawings. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
 - 1. Excavate **in accordance with the recommendations of Agricultural Soils Test.**
 - 2. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
- B. Subsoil and topsoil removed from excavations **may** be used as planting soil.

3.3 TREE, SHRUB AND VINE PLANTING

- A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1.
- B. Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.
- C. Set stock plumb and in center of planting pit or trench with root flare **1 inch (25 mm) above** adjacent finish grades.
 - 1. Use planting soil for backfill **as permitted by Agricultural Soils Test.**
 - 2. Balled and Burlapped: After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 3. Container-Grown: Carefully remove root ball from container without damaging root ball or plant. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 4. Fabric Bag-Grown Stock: Carefully remove root ball from fabric bag without damaging root ball or plant. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 5. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
 - 6. Place planting tablets in each planting pit when pit is approximately one-third filled; in amounts recommended in Agricultural Soil Report from soil testing laboratory. Place

tablets beside the root ball about 1 inch (25 mm) from root tips; do not place tablets in bottom of the hole.

7. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

3.4 TREE, SHRUB AND VINE PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

B. Prune, thin and shape trees, shrubs and vines according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by Landscape Architect, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.

1. All pruning, thinning and shaping of trees shall be accomplished under the direction and supervision of a Certified Arborist.

3.5 GROUND COVER AND PLANT PLANTING

A. Set out and space ground cover and plants other than trees, shrubs and vines in even rows with triangular spacing as indicated on Drawings.

B. Use planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

E. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

F. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.6 PLANTING AREA MULCHING

A. Mulch planting areas as indicated on Drawings.

1. Trees in Turf Areas: Apply **organic** mulch ring of **2-inch (50-mm)** depth, with radius around trunks or stems as indicated on Drawings. Do not place mulch within **3 inches (75 mm)** of trunks or stems.

2. Planting Areas: Apply **2-inch (50-mm)]** average thickness of mulch **over whole surface of planting area** and finish **level with** adjacent finish grades. Do not place mulch within **6 inches (150 mm)** of trunks or stems.

3.7 PLANT MAINTENANCE

- A. Maintain plantings in accordance with Specification Section 320190 – Landscape Maintenance.
- B. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, resetting to proper grades or vertical position and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
- C. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.
- D. Apply treatments as required to keep plant materials, planted areas and soils free of pests and pathogens or disease. Use practices to minimize the use of pesticides and reduce hazards.
- E. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- F. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

3.8 CLEANUP AND DISPOSAL

- A. Immediately restore eroded areas.
- B. Keep all adjacent paved surfaces cleaned of dirt, mud or stains and organic debris.
- C. Remove from site and legally dispose of surplus construction materials and waste material including excess subsoil, unsuitable soil, forms, trash and debris off of Owner's property.

END OF SECTION 329300

Project Name:
REXFORD DRIVE IMPROVEMENTS

REXFORD DRIVE INTERSECTION
 BEVERLY HILLS, CA 90210



landscape architecture | urban design | planning

MIA LEHRER + ASSOCIATES

3780 Wilshire Blvd., Suite 250
 Los Angeles, CA 90010
 t 213.384.3844
 f 213.384.3833

www.mlagreen.com

Project Team:

REVISIONS:
 90% CD 07.24.13

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WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE LANDSCAPE ARCHITECT IS TO BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. EXISTING CONDITIONS AND LOCATIONS OF UTILITIES HAVE NOT BEEN VERIFIED HEREON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR BEFORE BEGINNING WORK TO DETERMINE THE EXACT LOCATION OF ALL GAS MAINS AND EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS AND ENGINEERING REQUIRED NOT INCLUDED IN THESE DRAWINGS, CIVIL, STRUCTURAL, AND MECHANICAL ENGINEERING BY OTHERS, GRADING AND DRAINAGE BY OTHERS.

SHOP DRAWINGS MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

Sheet Title:

PLANTING PLAN

Scale:

Date: 07.24.13

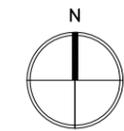
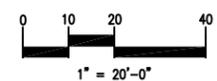
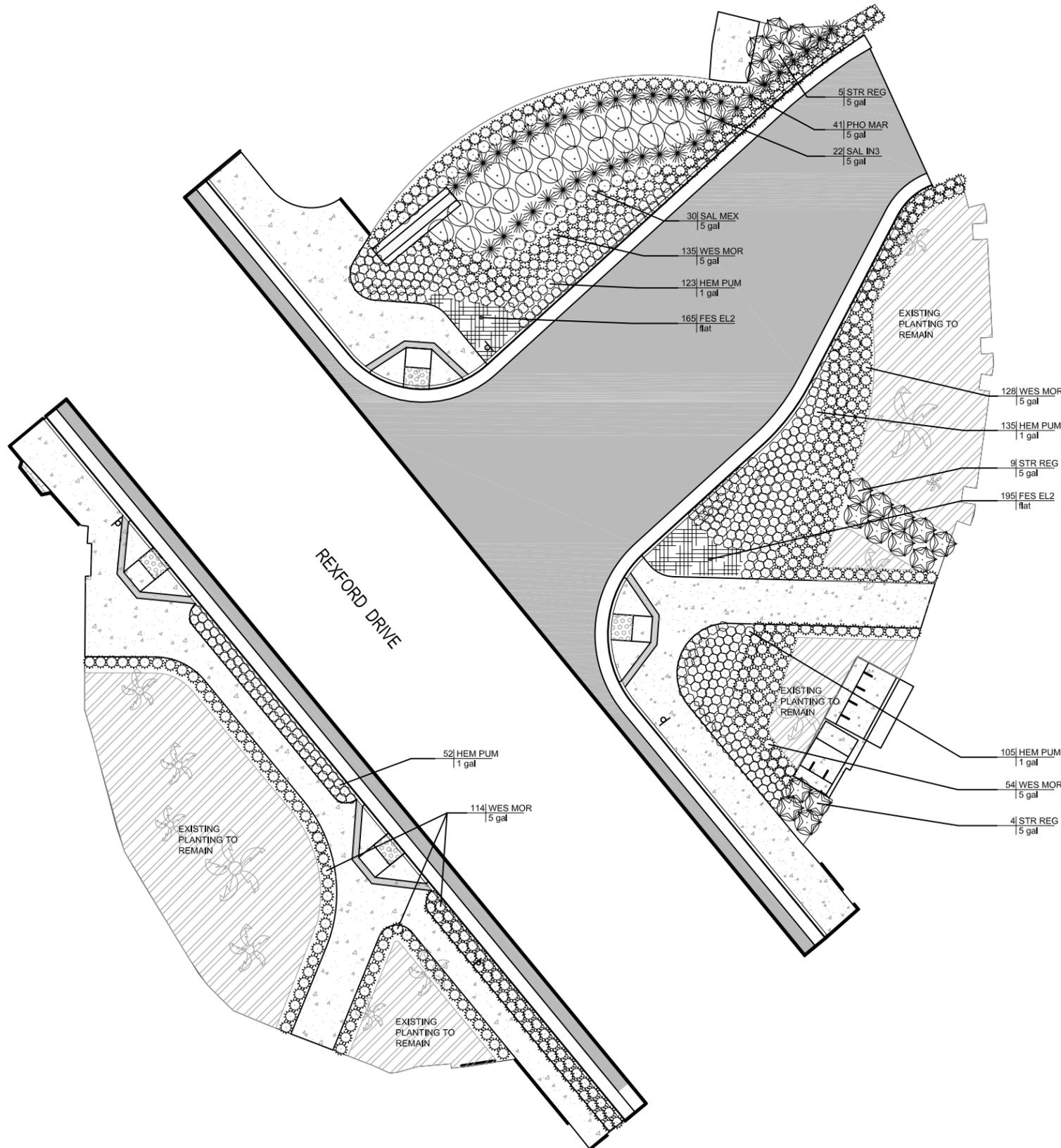
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PLANTING NOTES

- DRAWING IS DIAGRAMMATIC. VERIFY ALL LOCATIONS AND CONDITIONS ON SITE. COUNT ALL PLANT MATERIAL BEFORE BIDDING.
- INSPECT ALL EXISTING CONDITIONS ON SITE AND LOCATE ALL EXISTING UTILITIES BEFORE CONSTRUCTION BEGINS. ALL TREE STAKING LOCATIONS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY DIGGING.
- CONTRACTOR TO REPAIR AT HIS OWN EXPENSE ALL PROPERTY DAMAGE WHICH OCCURS DURING PROJECT INSTALLATION.
- NOTE ADDITIONAL REMARKS ON SPECIFIC PLANTS IN PLANT LIST.
- ALL EXISTING PLANT MATERIAL TO BE REMOVED EXCEPT WHERE NOTED ON PLAN.
- ALL PLANT MATERIAL TO BE GUARANTEED FOR 90 DAYS FROM THE DATE OF ACCEPTANCE BY OWNER. CONTRACTOR SHALL STORE PLANT MATERIAL IN SHADE AND PROTECT FROM SUN. ENSURE ON SITE WATERING PRIOR TO PLANTING.
- FINISH GRADE TO BE 1" BELOW ALL WALKS, CURBS, AND PAVING.
- ALL PLANTED AREAS SHALL RECEIVE THE FOLLOWING AMENDMENTS PER 1,000 SQ. FT. OF SURFACE AREA, ROTO-TILL AMENDMENTS TO A DEPTH OF 6"
 *150 LBS. GRO-POWER
 *ADD 8 LBS OF GRO-POWER CONTROLLED RELEASE 12-8-8 PER CU YD OF MIX.
- PLANT HOLE TO BE TWICE AS WIDE AND DEEP AS THE PLANT ROOT BALL. BACKFILL AND COMPACT TO 80% WITH 60% SOIL OF SITE AND 40% FIR BARK. UNLESS OTHERWISE NOTED, PROVIDE GRO-POWER PLANT TABLETS AT THE FOLLOWING RATES:
 1 GAL 2
 5 GAL 5
 15 GAL 10
 24" BOX AND UP 14
 PLACE RECOMMENDED TABLETS BETWEEN THE BOTTOM AND THE TOP OF THE ROOT BALL BUT NO HIGHER THAN 1/3 OF THE WAY UP TO THE TOP OF THE ROOT BALL. SPACE TABLETS EQUALLY AROUND THE PERIMETER OF THE ROOT BALL APPROXIMATELY 2" FROM THE ROOT TIPS.
- "DEEP ROOT" BARRIERS ARE TO BE USED AROUND ALL TREES LOCATED WITHIN 5 FT. OF PAVING. INSTALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL REMOVE ALL NURSERY STAKES AFTER PLANTING.
- ALL PROPOSED SHRUB AND GROUND COVER AREAS ARE TO BE TREATED WITH A PRE-EMERGENT WEED KILLER (EPTAM / RONSTAR). APPLY PER MANUFACTURER'S SPECIFICATIONS:
 A) IMMEDIATELY AFTER PLANTING.
 B) AT THE BEGINNING OF THE MAINTENANCE PERIOD, AND
 C) AT THE END OF THE MAINTENANCE PERIOD.
- ALL PLANTING AREAS TO BE TOPPED DRESSED WITH MULCH PER SPECIFICATIONS.
- INSTALL AND MAINTAIN LANDSCAPE PLANTING IN ACCORDANCE WITH THE GOVERNING AGENCY'S GUIDELINES AND SPECIFICATIONS UNLESS NOTED OTHERWISE IN THESE NOTES OR ON THE PLANS.

PLANT SCHEDULE

SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	CONT	QTY	
	HEM PUM	Hemercallis x 'Pumpkin Kid' TM / Daylily	1 gal	415	
	PHO MAR	Phornium x 'Margaret Jones' / Margaret Jones Flax	5 gal	41	
	SAL MEX	Salvia chamaedryoides / Mexican Blue Sage	5 gal	30	
	SAL IN3	Salvia leucantha 'Indigo Spres' / Indigo Spres Sage	5 gal	22	
	STR REG	Strelitzia reginae / Bird Of Paradise	5 gal	18	
	WES MOR	Westringia fruticosa 'Morning Light' / Morning Light Coast Rosemary	5 gal	431	
GROUND COVERS	CODE	BOTANICAL NAME / COMMON NAME	CONT	SPACING	QTY
	FES EL2	Festuca glauca 'Elijah Blue' / Blue Fescue	flat	8"	360



L100