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Palos Verdes Peninsula Unified School District

May 23, 2012

Project: **Palos Verdes High School 10 Classroom
Building**

Bid No. RS 063-06.28.12

Project No. RS 063

**To Prospective Bidders:
ADDENDUM # 1**

**PLEASE SIGN BELOW AND RETURN
ACKNOWLEDGEMENT OF
RECEIPT OF ADDENDUM # 1**

URGENT!!!!

**PLEASE RETURN THIS PAGE TO VANIR
VIA FAX AT (310) 541-3708 NO LATER
THAN THURSDAY, MAY 24, 2012**

AND

**REMEMBER TO ACKNOWLEDGE
ADDENDUM NO. 1 ON THE BID FORM**

Should you have any questions please call Cathy
Herrera at (310) 544-0152. ext. 221

SBS Corporation
Company Name

Mike Steward
Signature

5/24/12
Date

**PALOS VERDES PENINSULA UNIFIED SCHOOL
DISTRICT
FACILITIES CONSTRUCTION PROGRAM**

ADDENDUM NO. 1

for

**PALOS VERDES HIGH SCHOOL 10 CLASSROOM
BUILDING**

Bid No. RS 063-06.28.12

Project No. RS 063

Architect:

**PBWS Architects
234 E. Colorado Blvd Ste. 700
Pasadena, CA 91101**

Construction Manager:

Vanir Construction Management

Palos Verdes Peninsula Unified School District
Palos Verdes High School 10 Classroom Bldg

Bid No. RS 063-06.28.12
Project No. RS063
Addendum No. 1

Palos Verdes Peninsula Unified School District
Facilities Construction Program

School: Palos Verdes High School
Project Title: **Palos Verdes High School 10 Classroom Building**
Project No.: RS063
Bid No.: RS063-06.28.12
Construction Manager: Vanir Construction Management, Inc.

ADDENDUM NO. 1
(For Bid No. RS 063-06.28.12)

NOTICE TO BIDDERS: The following changes, additions or clarifications have been made to the project Bid Documents dated March 2012, and shall be incorporated in the bidder's bid amount. The Bidder shall acknowledge receipt of this Addendum in the BID FORM. All other aspects of the work from the original Bid documents shall remain unchanged. In case of conflict between the Drawings, Specifications, previous Addenda (if any) and this Addendum, this Addendum shall govern.

ADDENDUM NO. 1

The following changes, additions, deletions or corrections shall become a part of the Contract Documents for the project named above and all other conditions shall remain the same. The bidders shall be responsible for transmitting this information to all affected subcontractors and suppliers prior to the closing of bids.

Item No. AD 1.01: Performance During Working Hours

All work shall be performed between the hours of 7:00 a.m. – 7:00 p.m. Monday through Friday. Saturday work hours shall be 9:00 a.m. – 5:00 p.m. and no work shall be done on National Holidays and on Sundays. The contractor shall work around the school schedule during special events and test periods.

Item No. AD 1.02: Revisions to Phasing Plan

Article 2.1.1 of Section 00800 is revised as follows:

2.1.1 Phase 1: Mobilization:

This work shall begin immediately after the Notice to Proceed and shall be completed within 7 calendar days after the Notice to Proceed. This includes fencing and sight blocking of staging area and placement and power (if necessary) of storage container.

Removal and relocation of the existing electrical pullbox shall be completed during this phase and the power shall be completely restored to the buildings that are currently connected to the existing pullbox.

Item No. AD 1.03: Addendum No. 1 Prepared by PBWS Architects

See attached Addendum No. 1 prepared by PBWS Architects.

Palos Verdes Peninsula Unified School District
Palos Verdes High School 10 Classroom Bldg

Bid No. RS 063-06.28.12
Project No. RS063
Addendum No. 1

Item No. AD 1.04: Answer to Questions:

Q1: Please be advised that specifications for ACT call for 2-1/4" Compasso Trim, however there does not appear to be details for Compasso trim on the plans and typically Compasso trim is utilized for a floating ceiling. Please advise.

A1: Omit Section 095100, Part 2, 2.1,C from scope of work.

***END OF ADDENDUM NO. 1
FOR BID NO. RS063-06.28.12***

ADDENDUM NO. 1

Palos Verdes Peninsula Unified School District

Palos Verdes High School

CLASSROOM BUILDING 3

DSA A#: 03-114031

May 22, 2012

PBWS Architects
234 E. Colorado Boulevard, Suite 700
Pasadena, CA 91101



Wade Frazier, C24336

PART 1 GENERAL

1.1 The DSA-approved drawings and specifications are hereby revised as follows:

PART 2 DRAWINGS

2.1 REVISED DRAWINGS ISSUED

The following drawings are hereby replaced with revised drawings dated May 22, 2012:

A101 Demolition Site Plan
A201 Floor Plan
A501 Interior Elevations
E1.0 Site Power Plan
E1.1 Site Communication Plan
E1.2 Site Fire Alarm Plan

2.2 NEW DRAWINGS

Add the following sheet(s) to the drawings set:

L101 Planting and Irrigation Plans
L102 Landscape Details

2.3 REVISIONS TO THE DRAWINGS

- 2.3.1 Sheet G101- Revise Overall Campus Plan (1/G101) in accordance with revision 1 on Drawing SK-1.
- 2.3.2 Sheet C101- Revise Site Grading and Drainage Plan (1/C101) in accordance with revision 1 on Drawing SK-2.
- 2.3.3 Sheet C101- Revise General Notes #17 to read: "The contractor shall be responsible for the location of underground utilities. The contractor is cautioned that only actual excavation will reveal the locations of existing underground utilities. The contractor shall take precautionary measure to protect utilities in place, unless abandoned, and maintain the utility in service, unless otherwise specified. Disconnect, remove, and cap abandoned utility lines within demolition area."
- 2.3.4 Sheet A102- Revise Construction Note #5 in accordance with revision 1 on Drawing SK-3.
- 2.3.5 Sheet A102- Revise Site Plan (1/A102) in accordance with revision 1 on Drawing SK-4.
- 2.3.6 Sheet A203- Revise Roof Plan (1/A203) in accordance with revision 1 on Drawing SK-5.

PART 3 SPECIFICATIONS

3.1 ADDED SPECIFICATIONS

The following specifications sections are hereby added:

32 80 00	Irrigation Systems
32 90 00	Landscape Planting

ENCLOSURES:

REVISED DRAWINGS:

A101	Demolition Site Plan
A201	Floor Plan
A501	Interior Elevations
E1.0	Site Power Plan
E1.1	Site Communication Plan
E1.2	Site Fire Alarm Plan

NEW DRAWINGS:

L101	Planting and Irrigation Plans
L102	Landscape Details

REVISION/CLARIFICATION DRAWINGS:

SK-1
SK-2
SK-3
SK-4
SK-5

ADDED SPECIFICATIONS:

32 80 00	Irrigation Systems
32 90 00	Landscape Planting

END OF ADDENDUM NO. 1

SECTION 32 80 00
IRRIGATION SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of Division 01 apply to this section.
- B. Section Includes:
 - 1. Irrigation system.
 - 2. Line voltage connection of irrigation controller.
- C. Related Sections:
 - 1. Section 32 90 00: Planting

1.02 SUBMITTALS

- A. Materials List: Provide manufacturer's name and description of items to be furnished.
- B. Product Data: Provide catalog cuts, technical data, and manufacturer's specifications.
- C. Shop Drawings: Provide Shop Drawings, in the same size of the Drawings, indicating proposed system layout, locations of controllers, valves, backflow devices, quick couplers, heads and point of connections. Include details for sleeves, yard boxes, backflow, and controller installations.

1.03 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Comply with local, municipal and state laws, rules, and regulations governing or relating to this Work. Wiring shall conform to National Electrical Code and local codes.
- B. Best Management Practices:

Conform to "Handbook Five: A Guide for Implementing Large Scale Irrigation Projects" as required by The California Water Conservation in Landscaping Act (Assembly Bill 325).

 - 1. AB 325 California Calculation of Estimated Applied Water Use (EWU).

3. Soils compacted in trenches and around sprinkler heads, level with existing grades, unless otherwise required.
4. Controller and cabinet installation.
5. Sprinkler control valves and boxes.
6. Backflow, pressure regulator, pumps, etc., installation.
7. Final site review:
 - a. Operate each system in its entirety in the presence of the Architect. Provide any required adjustments with defective Work corrected as required.

1.07 MAINTENANCE

A. Extra Materials, Tools and Accessories:

1. Spare Sprinkler Heads: Furnish six spare sprinkler heads, with inserts, of each type, size or series installed.
2. Keys and Wrenches:
 - a. Keys for controller cabinets: 2 tagged pin tumbler type.
 - b. Wrenches for each type of sprinkler head or nozzle: 2 sets.
 - c. Coupler: Provide one coupler for each four quick-coupler valves installed.
 - d. Provide two, 30" long, heavy-duty sprinkler keys for manual sprinkler systems.

B. Training:

1. Before Substantial Completion, instruct designated Owner personnel on operation and programming of the system.
2. Provide at least 4 hours of training, by an authorized representative of manufacturer, for each controller.

1.08 WARRANTY

- A. Provide a 5 year manufacturer's warranty for controller units.

PART 2 - PRODUCTS

2.01 IRRIGATION SYSTEM

5. Provide valves needed to isolate loop systems or major branch lines.

2.02 MATERIALS

- A. Provide only new materials, of brands and types noted on Drawings and in the Specifications.
- B. Pipe and Fittings:
 1. Plastic Pipe shall be Schedule 40: Extruded from 100 percent Virgin Polyvinyl Chloride (PVC) Compound, meeting requirements of Class 12454-B of "Standard Specifications for Rigid Polyvinyl Chloride Compounds and Chlorinated Polyvinyl Chloride Compounds" ASTM D 1784.
 - a. Plastic fittings shall be Schedule 40 molded from PVC Type I Compound, conforming to the requirements of Class 12454-B of ASTM D 1784.
 - b. Nipples: Schedule 80.
 - c. Plastic pipe shall be continuously and permanently marked with the following information: Manufacturer's name, nominal pipe size, Schedule or Class, SDR (Standard Dimension Ratio, or pressure rating in psi) National Sanitation Foundation (NSF).
 - d. PVC primer and solvent for chemical weld of pipe and fittings shall be as recommended by pipe manufacturer. Containers for solvent and primer shall be clearly marked with manufacturer's data. Solvent and primer shall not be more than one year old. Blue or red hot glue is not permitted.
 2. Steel Pipe and Steel Fittings: Pipe and fittings shall be A.S.A. Schedule 40 galvanized mild steel screwed pipe and beaded galvanized malleable iron screwed fittings, including couplings. Thread on pipe and fittings shall be taper type, complying with A.N.S.I. Specification B125.1-84, B125.2-72 and A.S.T.M. A-53-90b. Above grade fittings shall comply with A.N.S.I. (A.S.M.E. B36.10M-85) and A.S.T.M. (A53-90a and A120-84D).
 - a. All unions 2 inch and smaller shall be ground joint pattern.
 - b. Unions larger than 2 inch shall be flanged unions.
 3. Connection between steel pipe and copper pipe or tube shall be provided with a 6 inch brass nipple.
 4. Connection between any female threaded fitting and plastic pipe shall be installed with a Schedule 80 nipple.
 5. Steel pipe or fittings shall not be installed below grade.

pattern, screwed. Valve to be adjustable in field from 5 feet to 40 feet head to prevent low head drainage. Size and type indicated on Drawings.

7. Electric remote control valves shall be 24 volts capable of operating on #14 gauge UF wire; either bronze or brass, globe or angle pattern, and diaphragm actuated:

Superior 950

D. Sprinkler Heads:

1. In lawn areas, provide 4 inch plastic pop-up sprinkler heads with built in check and adjustable nozzles with diameter of coverage as indicated on drawings.
2. In planters and shrub areas, provide 6 inch plastic pop-up sprinkler heads with built in check and adjustable nozzles with diameter of coverage as indicated on drawings.
3. Large turf-area sprinkler heads shall be gear driven rotary heads with removable strainer, and make, type and performance as indicated on Drawings. Heads shall be permanently marked with manufacturer's name and shall be equipped with soft rubber covers:
4. Install triple swing assemblies: Swing joints assembled with PVC schedule 80 nipples and PVC SCH 40 "L".

E. Automatic Sprinkler Controllers:

1. All sprinkler controllers shall be furnished with three (3) extra stations reserved for future connection.
2. Controllers shall be the latest model of the specific brand specified with a minimum of four stations. Controllers shall be programmable in English and shall be capable of operating independent programs with complete cycles. Controller shall be provided with one solid-state and maintenance-free unit.
3. Controller shall operate on 110 volts, single phase current, shall be completely automatic, and shall function with clock. Controller output shall be at least 2 amps and minimum 24 volts.
4. Each individual station shall have a variable timing range of one minute to 11 hours with up to 12 station repeats per cycle. Timing of each station shall be Project site adjustable.
5. Where indicated on Drawings, provide controller assembled complete from factory with a single pole disconnect switch for electrical power

- 4) Water budget per program from zero to nine hundred ninety-nine percent (0-999%) in one (1) percent increments for adjustment of program run times.
 - 5) Program by time or moisture sensor.
 - 6) Programmable monthly water total terminates over budget irrigation.
 - 7) Station programming allowing groups of stations to be programmed with the same run time.
 - 8) Programmable water window.
- d. The controller shall be provided with the following program setup options:
- 1) Program overlap protection or concurrent operation.
 - 2) Non-irrigation programs shall be independent of rain shutdown mode.
 - 3) Inter station delay from zero (0) to two hundred fifty-five seconds (255).
 - 4) Runtimes from 1 second to 24 hours programmable in hours/minutes or minutes/seconds.
 - 5) Master valve selections: normally open or normally closed with programmable delay from zero (0) to Six hundred (600) seconds.
- e. The controller shall be furnished with the following maintenance and diagnostic capabilities:
- 1) Flow monitoring with automatic alarm processing which provides station or master valve shut-down and program advance as required; and diagnosing and reporting station underflow and overflow, mainline breaks, and unscheduled flows with a maximum flow limit of two thousand (2000) GPM.
 - 2) Electrical field wire monitoring. Automatic alarm processing, which provides station shutdown and program advance, for station over current, short circuits, broken field wiring or faulty solenoids.

- b. The transmitter shall be provided with a belt clip.
- c. Auto-up and auto-down operation.
- d. Independent control of master valve and pump.
- e. Single or multi-station on capability for testing system hydraulics.
- f. Timed station operation selectable from one (1) to sixty (60) minutes.
- g. Control up to nine hundred ninety-nine individual receivers from a single transmitter.
- h. The remote controller shall be furnished with compact receiver for permanent internal mounting.
- i. The hand controller shall detect and protect against field wiring short circuits.
- j. Automatic resetting circuit breakers.
- k. The receiver shall be furnished with a built-in safety default to automatically turn station off after 60 minutes.
- l. The remote controller shall be furnished with an audible transmitter and receiver tones to verify proper operation at all times.
- m. VHF-FM communications.

Rainmaster Promax Remote Control System, or equal.

G. RAIN SWITCH ENCLOSURES

- 1. Rain Switch Enclosure shall be of a vandal and weather resistant nature manufactured entirely of three hundred four (304) grade stainless steel. The enclosure shall be mounted with stainless carriage bolts with rubber gaskets between the enclosure and cabinet.

Strongbox Rain Switch Enclosure RGVRSS, or equal.

H. RAIN SWITCH SENSOR

- 1. Rain Switch Sensor shall be 24-volt for wiring to one 110 volt or 220 volt A.C. All electrical devices and wiring shall comply with the National Electrical Code, Specifications, and local codes.

5. The flow sensor shall be furnished with a programmable flow check delay (1-6 minutes).
6. The flow sensor shall be furnished with an automatic flow LEARN mode for setting individual station limits, or manual entry, or semiautomatic monitor/set mode
7. The flow sensor shall be furnished with global percentage adjust to automatically factor upper flow limits for stations.
8. Automatic station advancement for station overflow.
9. Audio and visual alert for all flow violations.
10. Intelligent upper-limit processing for concurrent station operation.
11. Automatic closure of normally open master valve on main line break or unscheduled overflow.

Data Industries IR Series, or equal.

K. Flow Sensor Cable

1. Cabling required for connections from controller to flow sensor shall be installed in conduit:

Shielded 2-wire E.V Cable, or equal.

L. Ground Rod

1. Ground rod shall be 5/8 inch X 8 foot copper clad.

M. Back Flow Protection Device:

1. Type designed to operate on a reduced pressure principle or pressure type vacuum breaker furnished with full port shut off valves and fieldtest cocks. Provide La Meur, or equal, enclosure to house backflow device.
 2. Wye strainers at back flow device shall be 125 pounds class customer brass with 40 mesh Monel screen.

N. Tracer Wires: A No. 14, Green, Type TW plastic-coated copper tracer wire shall be installed with non-metallic irrigation main lines.

O. Control Wires to Control Valves: Control wires to electrically operated solenoid valves shall be direct burial type UF#14 AWG copper, 3/64 inch thick PVC coating. UL approved for Class 2 wiring for 24 volts, 60 cycle AC use UL recognized waterproof connectors to connect control wires to solenoids.

- C. Cure welded joints at least 15 minutes before moving or handling, and at least 24 hours before applying pressure to system, unless otherwise recommended by joint solvent manufacturer.
- D. Pressure piping installed under a driveway or sidewalk shall be sleeved. The sleeves shall be two pipe sizes larger than the pressure piping.
- E. Piping through cement and asphalt pavement shall be L type copper with ¼ inch of foam wrap or other required material around the pipe to allow for expansion.
- F. All holes cored through walls shall be two pipe sizes larger to allow for foam wrap around pipe.
- G. PVC pipes shall not be installed above grade unless reviewed by the Architect.
- H. Lettering shall be face up on all below grade PVC piping. Pipe serving tree areas shall be located not less than 30 inch from center of tree area.

3.03 IRRIGATION HEAD INSTALLATION

- A. Install all sprinkler heads with 100% triangulated head to head coverage or other required 100 % head to head coverage method where indicated.
- B. To insure proper coverage spray heads and rotary heads shall be furnished with separate control valves.
- C. Add heads and or change heads, nozzles, or orifices as may be required to provide coverage.
- D. Branch lines, swing joints or sprinkler risers shall not be sized smaller than the sprinkler heads they serve.
- E. Rotary Heads:
 1. Prior to installing heads, thoroughly flush main and lateral lines with full line pressure. Repeat whenever system is opened up for repairs or replacements. Start flushing operation at highest point of delivery and proceed to lowest.
 2. Risers to rotary heads shall be installed plumb and secured in position with thoroughly compacted soil.
 3. In new turf fields, rotary heads shall be temporarily set 3 inch minimum above grade and then lowered into permanent position as required.
 4. In existing turf fields top of rubber covered rotary heads shall be set flush with earthen grade.
 5. Part circle heads shall not spray water onto adjacent track or paving surfaces.

3.06 QUICK COUPLER VALVES AND ASSEMBLIES

- A. Install quick couplers 1 inch above finish grade as detailed:
1. For typical Baseball infield application behind Pitcher's mound, use "Detail Sheet H" (quick coupler installed in 8-inch round, bolted, yard box).
 2. For other typical applications refer to Owner installation "Detail Sheet E."
 - a. For football fields, install quick coupler up against cement curb surrounding the football field.
 - b. For athletic fields, install at the perimeter of the field.
 - c. In all other applications, install next to walkways.

3.07 VALVES

A. ISOLATION AND SHUT-OFF VALVES

1. Pressure piping system shall be furnished with valves at all points indicated on Drawings or specified.
2. Valves shall be installed with the best of workmanship, neat appearance, and groupings, so all parts are easily accessible. Valves near walks, curbs etc., shall be set in 12 inches and parallel to the adjacent surface. Remote control valves shall be installed in ground cover or shrub areas wherever possible.
3. Valves shall be full size of line in which they are installed unless otherwise indicated.

B. Remote Control Valves:

1. Remote control valves shall be low wattage (24 volts,) and shall be capable of operating properly on no larger than #14 gauge UF wire.
2. All remote control valves shall be adjustable to control flow of water through valve adjustments and shall be accessible through valve boxes installed above each valve. Valves shall be highest quality of manufacturer.
3. Remote control valves shall be installed and adjusted so that sprinkler heads operate at pressure recommended by head manufacturer. Remote control valves shall be adjusted so that sprinkler heads to planting areas from each individual valve system applies a uniform distribution of water.
4. All remote control valves on any line shall be installed 3 inch minimum, 8 inch maximum below finish grade to top of flow control stem.

inconspicuous location close to buildings, walls, or fences.

- B. Assembly shall be furnished with valves, test cocks, and other appurtenances as required by the Los Angeles County Health Department Cross Connection and Water Pollution Control Section.
- C. Install thrust blocks and pipe support as required to support backflow assembly.
- D. Install backflow device in backflow enclosure.
- E. Installations of backflow prevention devices shall be tested and certified by a certified L.A. County Backflow Prevention Device Tester before Substantial Completion. Test shall be performed in the presence of the IOR. Test reports shall be turned over to the IOR.

3.11 CONTROL WIRE

- A. Install control wiring in trenches and maintain a minimum of 18 inch cover to finish grade.
- B. Control wiring located under paved areas shall be encased in Schedule 40 PVC pipe and shall extend a minimum of 12 inches beyond pavement.
- C. Bundle and tie control wires at 10 foot intervals.
- D. Wires shall be color coded, white for common ground wire, red or black for valve control wires.
- E. Wire splicing shall only be performed in controller cabinet and at remote control valve boxes. Splices shall be made with a mechanical connector equal to "Scotch-lok" and encased in epoxy resin to provide a permanent watertight connection.
- F. Stubbed out control wires shall terminate in concrete yard boxes.
- G. Wire passing under future or existing paving or structures shall be encased in Schedule 40 PVC pipe extending at least 12 inch beyond edges of the paving or structure.

3.12 TRACER WIRES

- A. Tracer wire shall be installed on bottom of trench, adjacent to vertical pipe projections, carefully installed to avoid stress from backfilling, and shall be continuous throughout length of pipe with spliced joints soldered and covered with insulation type tape.
- B. Tracer wire shall follow main line pipe and branch lines and terminate in yard box with gate valve controlling these main irrigation lines. Provide sufficient length of wire to reach finish grade, bend back end of wire to make a loop and attach a Dymo-Tape type plastic label with designation "Tracer Wire."
- C. Record locations of tracer wires and their terminations on project record

1. Submit three (3) copies of as built including complete list of materials, manufacturer's name, and product installation literatures.
2. Record drawings: Submit dimensioned drawings and details, before Final Completion.
3. Record Drawings shall contain the following:
 - a. As-Built shall be computer generated (C.A.D.)
 - b. Print shall show the locations of the numbered remote control valves, manual control valves, locations and size of all supply and lateral lines, location and type of all sprinkler heads, quick coupling valves, gate valves, backflow devices, point of connections, controllers and all other related equipment.
 - c. Dimensions shall be legible from two permanent points of reference such as buildings and sidewalks.
 - d. Drawings shall be 24 inches x 36 inches minimum size.

C. Operation and Maintenance Manuals:

1. Provide complete operating and maintenance instruction manuals for all equipment.
2. Provide in writing as part of the Water Management Program the controller settings for water under Best Management Practices No. 5 Handbook for all seasons.

3.16 PROTECTION

Protect the Work of this section until Substantial Completion.

3.17 CLEANUP

Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION

SECTION 32 90 00

LANDSCAPE PLANTING

PART 1 GENERAL

1.1 SUMMARY

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Sections, apply to this Section.

B. Section Includes:

1. Work is limited to:

a. All labor, material, equipment, and services required for reseeding of grass lawns/turf and replacement of planting, that are removed or damaged in the course of constructing the work of this project, and shall perform all other incidental work necessary to carry out the intent of this specification and drawings including the following:

1. Fine grading, soil preparation, planting of shrubs, vines, ground covers and lawn, and weed abatement.
2. 60-day Establishment/60-day Maintenance Period.
3. Provide guarantee.

C. Related Sections:

1. Section 32 80 00: Landscape Irrigation.

D. All irrigation work shall be approved by the District/Construction Manager/IOR/Architect prior to any work in this section being performed.

1.2 SUBSTITUTIONS

A. Specific reference to manufacturers' names and products specified in this section are used as standards; this implies no right to substitute other materials or methods without written approval from the District.

B. Installation and warranty of any approved substitution shall be Contractor's responsibility. Any changes required for installation or any approved substitution must be made to the satisfaction of the District without additional cost to the District.

1.3 PRODUCT HANDLING

symmetrical, tightly knit, so trained or favored in development and appearance as to be in form, number of branches, compactness and symmetry.

- E. All plants shall meet the specifications of federal, state, and county laws requiring inspection for plant diseases and insect control. All inspection certificates required by law shall accompany each shipment, invoice, or order for stock; and when such plants arrive at the site, the certificates shall be delivered to the District.
- F. Plants shall be true to species and variety in accordance with the American Association of Nurserymen Standards. Each group of plant materials delivered to the site shall be clearly labeled as to species and variety and nursery source.
- G. Plants shall not be pruned before delivery.
- H. Plants not conforming to the requirements herein specified will be considered defective and such plants, whether in place or not, will be marked as rejected. Contractor shall immediately remove rejected plants from the premises and replace with new acceptable plants at his expense.
- I. Container stock shall have grown in the containers in which delivered for at least six months, but not over two (2) years. Samples shall show no root-bound conditions. Container plants that have cracked or broken balls of earth when taken from container will be rejected by the District.

2.2 IMPORT SOIL

- A. Topsoil: Designated as imported topsoil as specified herein. The soil test will determine the suitability of topsoil before installation. Transport topsoil from the source to its final position unless stockpiling is specified.

1. Imported Soil:

- a. From a source outside the Project site and in compliance with this section.
- b. Architect may make such inspections and perform such tests as deemed necessary to determine the material meets all requirements.
- c. At least 30 days before scheduled installation, submit the proposed source of topsoil and a Sample to the Architect. Submit a written request for review, accompanied by a written report of a soils testing laboratory registered by State of California for agricultural soil evaluation which states that the proposed source complies with these Specifications.
- d. Comply with all recommendations of the soils testing laboratory and provide any soil amendments necessary to achieve proper

PART 3 EXECUTION

3.1 GENERAL

- A. Perform actual planting only during those periods when weather and soil conditions are suitable and in accordance with locally accepted practice.
- B. Confirm location and depth of underground utilities and obstructions. If underground structures or utility lines are encountered in the excavation of planting areas, other locations for planting shall be approved by the District.
- C. Plant locations shall be approved by the District prior to excavation and may be subject to spacing and distances required by the District.

3.2 FINISH GRADING

- A. All grading and mounding with the exception of final planting shall be completed prior to soil preparation.
- B. Planting areas shall be free of all weeds (plants not specified in planting areas), stones, stumps, roots, or other debris three quarter (3/4) inch in diameter and greater.
- C. Soil shall be graded to a smooth and even surface conforming to required finish grade. Finish grade adjacent to walks, paved areas, curbs, manholes, clean-outs, valve boxes, and similar features shall be one (1) inch below the surface in grass lawns/turf and two (2) inches below in ground cover/shrub areas. Grades between such features shall be carefully sustained and blended to eliminate abrupt changes.
- D. Planting areas to receive sod shall sustain a finish grade of such depth that the top of installed sod shall be flush with finish surfaces (walks, paved areas, etc.).
- E. Contractor shall allow for soil amendments when establishing subgrade elevations. All planting areas shall have a finish grade conforming to approved plans and specifications after full settlement has occurred.
- F. All planting areas adjacent to buildings shall be graded to drain away from the building at a minimum of two (2) percent slope, for a minimum of five (5) feet horizontal distance.

3.3 WEED ERADICATION

- A. If live perennial weeds exist on site at beginning of work, spray with a non selective translocative herbicide as recommended and applied by an approved licensed pest control advisor and applicator. Leave sprayed plants intact for at least 15 days. Clean and remove these existing weeds by mowing or grubbing off all plant parts at least 1/4-inch below the surface of the soil.

4. Plant tablets shall be required for all shrub, and vine plantings. Plant tablets shall be placed from one (1) to three (3) inches below the finish surface within three (3) inches of the rootball. Application rate an nutrients shall be per the manufacturer's recommendation.

5. Immediately after planting, apply water to each tree/shrub by means of a hose. Apply water in a moderate stream in the planting hole until the material about the roots is completely saturated from the bottom of the hole to the top of the ground. Add additional amended backfill material as necessary to correct any settlement around rootball. Apply water in sufficient quantities and as often as seasonal conditions require to keep the plant areas moist at all times, well below the root system of grass and plants.

C. Planting procedure for field grown material

Plant in accordance with the above specification; however, do not use nitrogen stabilized organic amendment in the backfill mix.

3.5 GROUND COVERS

A. Ground cover plants shall not be allowed to dry out before or while being planted. Roots shall not be exposed to the air except while actually being placed in the ground. Wilted plants will not be accepted.

B. Plant ground covers in straight rows evenly spaced.

C. Plant each rooted plant with its proportionate amount of flat soil. Immediately water after planting until entire area is soaked to full depth of each hole.

D. Protect plants from damage and trampling at all times.

E. Top-dress all ground cover and shrub areas with a minimum 2-inch layer of appearance grade bark mulch by Pacific Mulch, 22365 El Toro Road, Lake Forest, CA 92630, Tel. 949/888-8301.

3.6 GRASS LAWNS/TURF

A. After soil preparation, establishment of final grades, and weed abatement, carefully smooth all surfaces to be planted, roll area to expose soil depressions or surface irregularities. Regrade as required. Prior to planting, the soil shall be loose and friable to receive turf.

B. Immediately prior to planting, evenly broadcast a pre-plant commercial fertilizer. Rake in lightly. Avoid planting of grass lawns/turf on dry soil.

C. Grass lawns/turf shall be planted by seeding, hydroseeding, stolonizing, or sodding.

by the District unless growth has achieved a minimum of 75% coverage of the appropriate project areas.

C. End of Maintenance

1. The Contractor shall be responsible to coordinate and arrange a preliminary final inspection of the landscape improvements to be held approximately thirty (30) calendar days prior to completion of the establishment/maintenance period. This meeting shall include the Contractor and District. The purpose of this meeting is to inspect the improvements in advance of District's final acceptance while allowing sufficient time for Contractor to make corrections of noted deficiencies.

Contractor's failure to schedule the preliminary final inspection in a timely manner shall not alleviate Contractor of the responsibility to maintain the landscape improvements beyond the establishment/maintenance period at its sole expense.

2. Deficiencies noted during inspection shall extend the maintenance period.
3. End of maintenance shall occur only upon written acceptance by the District.
4. The duration for Establishment and Maintenance of the improvements as stated above (i.e., 60 calendar days for establishment and 60 calendar days for maintenance shall hereinafter be referred to as the "Establishment/Maintenance Period," and shall have a combined duration of 120 calendar days.

- D. During the Establishment/Maintenance period the Contractor shall provide all watering, weeding, fertilizing, cultivating, spraying, and mowing necessary to keep the plants and turf in a healthy, weed free, growing condition and to keep the planted areas neat, edged, and attractive. All shrubs shall be pinched-pruned as necessary to encourage new growth and to eliminate rank sucker growth. Old wilted flowers and dead foliage shall be immediately pinched or cut off.

- E. Post plant maintenance for the first year shall consist of a nitrogen-only fertilizer program. Apply 20 lbs./1000 sq. ft. fertilizer/soil conditioner (Gro-Power Plus) at 60-day intervals beginning 60 days after planting. In the event that ground cover, or shrubs exhibit iron chlorosis symptoms, necessary action shall be taken to correct the deficiency. Two (2) applications are required: one (1) at time of start of maintenance period and one (1) at completion of maintenance period or prior to District acceptance.

- F. During the Establishment/Maintenance period, should the appearance of any plant indicate weakness, that plant or cutting shall be replaced immediately with a new healthy plant. Any trees or shrubs with damaged cambium shall be