TABLE OF CONTENTS

SUMMARY OF THE WORK

PART 1 - GENERAL

1.01

1. The furnishing of all labor, materials, equipment, services, and transportation of Dunsmore Elementary School Shade Structure and misc. site work at 4717 Dunsmore Ave, Glendale, CA 91214, as set forth in the Contraction Documents which is required for the completion of the project in accordance with the provisions of the contract

2 Article 3 of the Bid General Conditions requires preparation of a Cost-loaded time logic schedule with a single critical path. If the Board approved lowest responsive and responsible bid Contractor and the Project Manager, on behalf of the District, cannot agree on the contract construction schedule and the project single critical path within fifteen (15) days after Notice to Proceed, the District may terminate the Contract, for convenience, as outlined in the Project General Conditions. In the event this is necessary, compensation to the General Contractor and all subcontractors or materialmen shall be limited to Mobilization costs only.

3. The liquidated damages shown in the Supplementary General Conditions shall apply to each phase of the phased construction plan, as defined by and within the plans and specifications.

4 No warranties or guarantees shall go into effect, for any trade, regardless of when completed in the sequence of the project erection, until one (1) day after the Board of Education has accepted the project at a noticed meeting. Attention: Bidders. This will require certain trades to bid for, and provide, a warranty of longer than one (1) year in length from the time of installation or furnishing of their materials to the project, depending upon the sequencing of their work within the overall schedule.

5 All project close-out/punch list items, project record documents, submittals, and operations manuals and spare parts, warranties and guarantees and Contractor's Final Verified Report (DSA6) shall be reviewed and accepted prior to the Architect/District agreed upon authorization to file the Notice of Completion with the Los Angeles County Recorder.

6 In the event that any materials requiring DSA Inspection (steel, concrete, masonry grout, etc.) are manufactured in an area located more than one hundred miles (100 miles) by air radius from the project site, all round-trip travel and all per diem costs incurred by the District on behalf of the Deputy Inspector who must perform on-site examination of the materials shall be borne 100% by the Contractor as an added expense. This charge shall be subtracted from the monthly "Application for Payment" submitted to the District on behalf of the project.

7 In the event the General Contractor or any subcontractor or materialman (on or off site) voluntarily accelerates the schedule for their own purposes, and/or voluntarily performs work in excess of eight (8) hours per day, or on the weekends or holidays, the additional cost of the Inspectors' overtime premiums which are required to inspect the work during these hours shall be paid 100% by the Contractor. This charge shall also be subtracted from the monthly "Application for Payment" submitted to the District on behalf of the project.

8 In the event that the Contractor fails to complete all punch list items and turn over all "deliverables, warranties, As-builts, etc." within sixty (60) days after acceptance of completion by the Board of Education, the full salary costs of one (1) construction Project Manager (16 hours per week @ $120.00/hour) and one DSA Inspector of record (actual hours spent @$80.00/hour) shall be back-charged to the Contractor, in addition to the liquidated damages, if any, imposed upon the Contractor for late performance. THIS PARAGRAPH WILL BE STRICTLY ENFORCED.

9. The intent of these contract documents is that the work of alteration, rehabilitation or construction is to be accordance with Title 24, California Code of Regulations. Should any existing conditions such as

deterioration or non-complying construction be discovered which is not covered by the Contract Documents wherein the finished work will not comply with Title 24, California Code of Regulations, a change order, or a separate set of plans and specifications, detailing and specifying the required

PART 2 – SCOPE OF WORK

2.01

A. Scope of Work: Contractor shall perform, within the time stipulated, the Contract including all of its component parts, and everything required to be performed, and to provide and furnish any and all of the labor, materials, tools, expendable equipment, and all applicable taxes, and all utility and transportation services necessary to perform the Contract and complete, in a workmanlike manner, all of the Work required in connection with the following titled Project in strict conformity with the Contract Documents:

2.0 B. Dunsmore Elementary School kinder area Shade Structure and misc. site work at 4717 Dunsmore Ave, Glendale, CA 91214

Dunsmore Elementary School kinder area Shade Structure and misc. site work

Scope

1) Removal of asphalt and concrete and all necessary materials in the designated area of construction.
2) Install two (2) Polygon shade structure to install per plans.
3) The area is well known to have large rocks and boulders please bid accordingly
4) Install all new signage or necessary site work needed per plan
5) Contractor is to provide fencing prior to the arrival of the shade structure to block off their working area
6) Contractor is responsible for receiving and unloading the shade structure from the delivery truck (the district will provide the contractor with a shipping date for coordination purposes
7) Contractor to provide a metal bin to secure products
8) Contractor is responsible for all city permits and inspections by the city
9) This will be a DSA project, therefore contractor has to coordinate with inspector and Lab of Records (district will provide contact info)
10) Contractor is responsible for providing all misc. Materials and concrete, (only the shade structure will be provided by the district.)
11) Contractor is responsible for moving all of the benches and returning them to their original location
12) Contractor is responsible for replacing all fences and gates if they need to be removed at their own expense.
13) Contractor is responsible for disposal of excess dirt, rocks, boulder's and debris from construction
14) Contractor is responsible for all patching of asphalt and concrete
15) Contractor is responsible for all cleaning
16) Contractor is to ensure the safety of students and staff and everyone on site during construction.
17) Contractor is liable to make sure that there are no utilities in the area of the footings (GPR Recommended)

SECTION 01730

DEMOLITION PROCEDURES

PART 5 - GENERAL

1.01 SECTION INCLUDES

A. General requirements for special project procedures pertaining to the alteration or modification of existing construction, and are complimentary to like requirements indicated or specified elsewhere. Principals items included are:

1. Removals, cutting, alterations and repairs to existing facilities as required to complete work.

2. Relocation and reinstallation of existing construction and finish.

3. Salvage, storage and protection of existing items to be reinstalled.

4. Salvage and delivery to the District of items so designated for removal and salvaged by Contractor, as directed.

1.02 RELATED SECTIONS

A. Requirements of other Sections of this Specification apply to this Section.

1.03 PROPERTY INVENTORY

A. District property that the District intends to remove, will be removed at no cost to Contractor, before a room or space is vacated for the Work. Before performing any Work in each room or space the District and Contractor shall prepare a detailed initial written inventory of District property remaining therein and condition thereof including equipment and telephone instruments, and each shall retain a copy of the inventory dated and signed by both. In same manner, prior to the District re-occupancy of each such room or space the parties shall again inventory District property therein and all discrepancies between the inventories shall be Contractor's responsibility as specified above.

1.05 JOB CONDITIONS

A. General: Coordinate the Work of all trades and with the District to assure correct sequence, limits, methods, and times of performance. Arrange the Work to impose minimum hardship on operation and use of the facilities. Install protection for existing facilities, contents, and new work against dust, dirt, weather, damage, and vandalism, and maintain and relocate as the Work progresses.

B. Access: Confine entrance and exit operations to access routes designated by the District.

C. Existing Conditions: Intent of Drawings is to indicate existing site and facility conditions with information developed from original construction documents, field surveys, and the District records, and to generally indicate amount and type of demolition and removals required to prepare existing areas for new work.

D. Verification of Conditions: Perform a detailed survey of existing site and building conditions pertaining of the Work before starting Work. Report to the District Inspector discrepancies or conflicts between Drawings and actual conditions in writing for clarification and instructions and do not perform Work where such discrepancies or conflicts occur prior to receipt of the Architect's instructions.

E. Special Noise Restrictions: Use care to prevent generation of unnecessary noise and keep noise levels to minimum possible. When ordered by the District Inspector, immediately discontinue such methods that produce noise disruptive or harmful to facility functions and occupants, and employ unobjectionable methods. Equip air compressors, tractors, cranes, hoists, vehicles, and other internal combustion engine equipment with "residential" grade mufflers, and muffle the unloading cycle of compressors. Remove from site any equipment producing objectionable noise as determined by the District Inspector.

F. Shoring and Bracing: Provide supports, shoring, and bracing required to preserve structural integrity and prevent collapse of existing construction that is cut into or altered as a part of the Work.

G. Overloading: Do not overload any part of structures beyond safe carrying capacity by placing of materials, equipment, tools, machinery, or any other item thereon.

H. Building Security: Secure building entrances and exits with locking or other approved method in accordance with the District's instructions.

I. Safeguarding the District Property: Contractor shall assume care, custody, and responsibility for safeguarding all the District's property of every kind, whether fixed or portable, remaining in rooms and spaces vacated and turned over to the Contractor by the District for his exclusive use in performance of the Work until the Work therein or related thereto is completed and the rooms or spaces are reoccupied by the District. Furnish all forms of security and protection necessary to protect the District's property. Regardless of cause, Contractor shall repair or replace all of the District's property under the Contractor's care, custody, and safeguarding that is damaged, injured, missing, lost, or stolen from time each such room or space is turned over the Contractor for the Work until re-occupied by the District, at Contractor's expense and as directed by the District.

1. Covering and Cleaning: Cover and protect surfaces of rooms and spaces turned over for the Work, including the District's property remaining therein, as required to prevent soiling or damage by dust, dirt, water, fumes, or otherwise, and protect other areas where Work is performed in same manner, as deemed adequate by the District. Prior to District's re-occupancy of any such room or space, clean all surfaces including District's property in accordance with General Conditions and other cleaning instructions as may be specified in other Sections.

J. Use of District's Telephones: Do not use nor allow anyone other than District employees to use telephone in rooms and spaces turned over to Contractor for the Work except in the case of a bona fide emergency. Install temporary dial locks on telephone instruments to prevent all unauthorized use, or arrange and pay for temporary removal and reinstallation of instruments. Reimburse to the District all telephone toll charges originating from the telephones in such rooms and spaces except those arising from emergencies or use by District employees.

K. Welding: Conform to following requirements where welding is performed in or on existing facilities.

1. Protection During Welding: Conform to Title 8, CAC. Further protect occupants and the public with portable solid vision barricades around locations where welding is performed plus signs warning against looking at welding without proper eye protection, or equivalent.

2. Fire Extinguishers: Maintain a fully charged UL-labeled minimum 6 pound 40B:C dry chemical fire extinguisher at every location where welding is performed within or on the facilities.

3. Welding Smoke Control: Verify locations of existing smoke detectors. Perform welding operations by methods that produce the minimum feasible smoke and fumes. Furnish portable type smoke collection and ventilating equipment as required to prevent smoke and fume nuisances. Notify District at least 48 hours in advance if temporary deactivation of any smoke detector is required to prevent false alarms

from the welding operations. The District's personnel will deactivate detectors only for the time welding is actually in progress.

4. Fire Prevention: Before welding, examine existing construction and backing for all combustible materials and finishes and for conditions where heat conduction in metals may bring adjoining materials to ignition temperature. Use positive fire prevention measures including temporary removal and reinstallation of combustible materials, installation of temporary shields and/or heat sinks, and other necessary means. When actual field conditions are such that positive fire prevention measures cannot be achieved, notify Architect and do not proceed with the involved work until receipt of Architect's instructions.

L. Protection of Floors: Use care to protect all floor surfaces and coverings from damage. Equip mobile equipment with pneumatic tires.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. General: When patching existing work in place, use materials that match existing materials in performance, thickness and finish.

PART 3 - EXECUTION

3.01 PROTECTION:

A. Glass: Provide such protection as may be required to prevent glass breakage for all glass to be reused or to remain. At no additional cost, replace in kind all broken glass.
B. Existing Work to Remain: Provide such forms of protection as may be necessary to prevent damage to and dust or dirt contamination of existing work and equipment to remain.
C. Items to be Reused: Exercise the greatest possible care when removing items scheduled for reuse. Use only mechanics skilled in the appropriate trades. Identify point of reuse, store and protect at locations directed.
D. If required due to damage, replace with new materials to match existing in same manner and technique originally utilized.

3.02 REMOVALS, ALTERATIONS, AND REPAIRS:

A. Basic Requirement: Restore and refinish all new and existing construction and improvements that are cut into, altered, damaged, relocated, reinstalled, or left unfinished by removals to original condition or to match adjoining work and finishes unless otherwise shown, specified, directed, or required. Workmanship and materials shall conform to applicable provisions of other Sections. Provide new fasteners, connectors, adhesives, and other accessory materials as required to fully complete approved reinstallations and restorations. Where restorations and refinishing are defective or are otherwise not acceptable to Architect, remove all the defective or rejected materials and provide new acceptable materials and finish at no extra cost to District.
B. Extent: Perform removals to extent required plus such additional removals as are necessary for completion even though not indicated or specified. More or less of the existing construction may be removed if such variation will expedite the work and reduce cost to the District, subject to prior approval in each case.
C. Removals: Carefully remove work to be salvaged or reinstall and store under cover.

3.03 MECHANICAL AND ELECTRICAL:

A. Demolish existing mechanical, plumbing and electrical items as indicated in the Drawings and Specifications.

3.04 REMOVED MATERIAL AND DEBRIS:

A. All removed material, not otherwise designated, and all debris becomes the property of the Contractor who shall remove it from the site and dispose of it in a legal manner.
B. Do not allow materials and debris generated by demolition activities to accumulate. Remove daily.
C. Leave all spaces broom clean with all ledges and corners properly cleaned.

END OF SECTION

SECTION 32 12 16 - ASPHALT PAVING

PART 1 - GENERAL

1.1 DELIVERY, STORAGE, AND HANDLING

A. Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.

B. Store pavement-marking materials in a clean, dry, protected location within temperature range required by manufacturer. Protect stored materials from direct sunlight.

1.2 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Prime Coat: Minimum surface temperature of 60 deg F (15.6 deg C).
2. Tack Coat: Minimum surface temperature of 60 deg F (15.6 deg C).
3. Slurry Coat: Comply with weather limitations in ASTM D 3910.
4. Asphalt Base Course: Minimum surface temperature of 40 deg F (4.4 deg C) and rising at time of placement.
5. Asphalt Surface Course: Minimum surface temperature of 60 deg F (15.6 deg C) at time of placement.

B. Pavement-Marking Paint: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F (4.4 deg C) for oil-based materials or 55 deg F (12.8 deg C) for water-based materials, and not exceeding 95 deg F (35 deg C).

PART 2 - PRODUCTS

2.1 ASPHALT MATERIALS

A. Provide materials of the class, grade, or type indicated on the Drawings, conforming to relevant provisions of Section 203 – Bituminous Materials of the Standard Specifications for Public Works Construction.

2.2 HEADERS AND STAKES

A. Concrete: Per Specification Section 321313.

B. Redwood

1. Headers: Redwood, Construction Heart Grade, size 2 x 6, unless otherwise indicated.
2. Stakes: 2 x 4 redwood or 2 x 3 Douglas Fir, Construction Grade.
3. Nails: Common, galvanized, 12d minimum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to begin paving.

B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction**,** repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph (5 km/h).
2. Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes).
3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

C. Proceed with paving only after unsatisfactory conditions have been corrected.

D. Verify that utilities, traffic loop detectors, and other items requiring a cut and installation beneath the asphalt surface have been completed and that asphalt surface has been repaired flush with adjacent asphalt prior to beginning installation of imprinted asphalt.

3.2 PATCHING

A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.

B. Portland Cement Concrete Pavement: Break cracked slabs and roll as required to reseat concrete pieces firmly.

1. Pump hot undersealing asphalt under rocking slab until slab is stabilized or, if necessary, crack slab into pieces and roll to reseat pieces firmly.

2. Remove disintegrated or badly cracked pavement. Excavate rectangular or trapezoidal patches, extending into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Recompact existing unbound-aggregate base course to form new subgrade.

C. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

D. Patching: Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

E. Patching: Partially fill excavated pavements with hot-mix asphalt base mix and, while still hot, compact. Cover asphalt base course with compacted, hot-mix surface layer finished flush with adjacent surfaces.

3.3 REPAIRS

A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch (25 mm) in existing pavements.

1. Install leveling wedges in compacted lifts not exceeding 3 inches (75 mm) thick.

B. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4 inch (6 mm).

1. Clean cracks and joints in existing hot-mix asphalt pavement.
2. Use emulsified-asphalt slurry to seal cracks and joints less than 1/4 inch (6 mm) wide. Fill flush with surface of existing pavement and remove excess.
3. Use hot-applied joint sealant to seal cracks and joints more than 1/4 inch (6 mm) wide. Fill flush with surface of existing pavement and remove excess.

3.4 SURFACE PREPARATION

A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.

B. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.

1. Mix herbicide with prime coat if formulated by manufacturer for that purpose.

C. Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.15 to 0.50 gal./sq. yd. (0.7 to 2.3 L/sq. m). Apply enough material to penetrate and seal but not flood surface. Allow prime coat to cure.

1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
2. Protect primed substrate from damage until ready to receive paving.

D. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.5 HOT-MIX ASPHALT PLACING

A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
2. Place hot-mix asphalt surface course in single lift.
3. Spread mix at minimum temperature of 250 deg F (121 deg C).
4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete a section of asphalt base course before placing asphalt surface course.

C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.6 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.
2. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
3. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.7 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.

1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).

B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density: 96 percent of reference laboratory density according to ASTM D 6927 or AASHTO T 245, but not less than 94 percent nor greater than 100 percent.
2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.

D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.

G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.8 INSTALLATION TOLERANCES

A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:

1. Base Course: Plus or minus 1/2 inch (13 mm).
2. Surface Course: Plus 1/4 inch (6 mm), no minus.

B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:

1. Base Course: 1/4 inch (6 mm).
2. Surface Course: 1/8 inch (3 mm).
3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).

C. Traffic-Calming Devices: Compact and form asphalt to produce the contour indicated and within a tolerance of plus or minus 1/8 inch (3 mm) of height indicated above pavement surface.

3.9 SURFACE TREATMENTS

A. Fog Seals: Apply fog seal at a rate of 0.10 to 0.15 gal./sq. yd. (0.45 to 0.7 L/sq. m) to existing asphalt pavement and allow to cure. With fine sand, lightly dust areas receiving excess fog seal.
B. Slurry Seals: Apply slurry coat in a uniform thickness according to ASTM D 3910 and allow to cure.
1. Roll slurry seal to remove ridges and provide a uniform, smooth surface.

3.10 PAVEMENT MARKING

A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.

B. Allow paving to age for 30 days before starting pavement marking.

C. Sweep and clean surface to eliminate loose material and dust.

D. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils (0.4 mm).

1. Broadcast glass beads uniformly into wet pavement markings at a rate of 6 lb/gal. (0.72 kg/L).

3.11 FIELD QUALITY CONTROL

A. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
B. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
E. Replace and compact hot-mix asphalt where core tests were taken.
F. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.12 DISPOSAL

A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow milled materials to accumulate on-site.

END OF SECTION

SECTION 02300

EARTHWORK

PART 6 - GENERAL

1.01 SECTION INCLUDES:

A. Clearing and Grubbing.

B. Over-excavation and Re-compaction.

C. Excavation, Grading, Filling and Compaction of entire site.

D. Excavation, Backfilling, and compacting Backfill for pipe trenches.

E. Export of excess excavated materials.

F. Control of surface and ground water.

G. Clean up.

H. Testing and Inspection of Work of this Section.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. Final preparation for asphaltic concrete paving areas.

B. Landscaping including planting and irrigation systems.

C. Storm Drainage, site water, sewer, and other site utilities.

1.03 QUALITY ASSURANCE

A. Codes and Standards: Perform work in this Section in compliance with all applicable requirements of governing authorities having jurisdiction.

1. Refer to Construction Safety Orders, Title 8, California Code of Regulations, Section 1503 and Article 6 (CCR); secure and pay for all required permits.

2. For off-site work, conform to all requirements of City of Glendale and any other agencies having jurisdiction. Coordinate and obtain all required permits and inspections.

3. Provide materials and perform work in compliance with the "Standard Specifications for Public Works Construction", current edition (PWC Specifications).

B. Professional Observation: A soils engineer will be retained by the Owner for purposes of inspection, testing and approval of all work under this section. Perform work of this Section under inspection and approval of the soils engineer. Give soils engineer not less than 48 hours advance notice of readiness for inspection.

C. Source Quality Control: Obtain written approval of the soils engineer of all imported fill material before material is brought to site. Obtain same approval of excavated material for use in fills or backfills prior to placing.

D. Comply with all requirements of permit for export of soil from site. Permit is to be obtained and paid for by Contractor. Furnish copies of all permits and licenses required by the City of Glendale to Owner's representative.

1.04 JOB CONDITIONS

A. Data: Maps, boring logs, geotechnical and foundation investigation reports, and like reference data, not included in Contract Documents but made available to Contractor by Architect or Owner are for information only, and the Architect and Owner assume no responsibility for any conclusions Contractor may draw from such information. Should questions or issues arise, contact Architect or Owner for clarification.

Contractor shall determine existing conditions under which the Contractor will operate in performing the Work.

B. Protection: Refer to CCR, Section 1503 and Article 6. Contractor shall secure permits. District will pay for all required permits. Provide and maintain protection as required by governing agencies to prevent injury to persons or damage to property.

1. Barricade open excavations and post with warning lights as recommended by authorities having jurisdiction.

2. Protect slopes, structures, utilities, sidewalks, pavement, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

3. Noise and Dust Abatement: Exercise all reasonable and necessary means to abate dust and rising dirt. Perform necessary sprinkling and wetting of construction site to prevent nuisance. Exercise all reasonable and necessary means to abate undue noise.

C. Existing utilities: Locate existing underground utilities in all areas of work prior to excavation or commencement of work. If utilities are to remain in place provide adequate means of protection during earthwork operations.

1. Should uncharted, or incorrectly charted piping or other utilities be encountered during excavation, consult Utility Owner immediately for direction. Cooperate with Owner and Utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of Utility Company.

2. Do not interrupt existing utilities serving facilities occupied or used by Owner, or others, except when permitted in writing by Owner's Representative, and then only after acceptable temporary services have been provided.

3. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut off of services if lines are active.

D. Water for Grading: Contractor shall obtain and pay for all water required for his grading operation. This may include, but is not limited to, payment of deposits to utility for construction meter, and payment of all monthly service and water charges. Construction meter shall be in place throughout construction period unless alternative arrangements are made with the Water Department to provide construction water for all purposes. Contractor shall be aware of water moratoriums and restrictions, and shall immediately advise Owner of effects on construction schedules.

E. Use of Explosives: The use of explosives is not permitted.

F. Existing Conditions: Prior to commencing work at site, verify agreement of existing conditions with indicated conditions. Notify Owner's Representative in writing of discrepancies found. Start of work without notification constitutes acceptance of conditions, without cause for extra compensation.

PART 2 - PRODUCTS

2.01 MATERIALS: Provide approved imported material, as required, if the quantity of approved site and excavated materials are insufficient to complete the work.

A. Earthwork Materials: The Soil Engineer shall evaluate Excavated soils for re-use during grading. Approved excavated or imported material shall be granular soil such as silty sand of the non-expansive type with a liquid limit of 25 or less, a plastic index of 12 or less and be uniformly graded, containing not more than 30% (by weight) of material passing the No. 200 sieve. All fill soil whether from on-site or imported shall be free from trash, roots, organic material, clay lumps, and rocks over 3" in size. Materials shall be from a legal export site only, in accordance with City of Glendale requirements. Materials shall be from a legal export site or obtain soils engineer's approval of material before bringing any of it onto project site.

B. Gravel Fill Material: Shall be from an approved source, having the following gradation: 90-100% passing a 3/4" sieve, 0% to 10% passing a No. 4 sieve, and 0% to 3% passing a No. 100 sieve.

C. Oversized Materials: Oversize material defined as rock or other irreducible material with a maximum dimension greater than 3" shall not be buried or placed in fills unless the location, materials and disposal methods are specifically approved by the soils engineer.

D. Topsoil: Friable loam, free of subsoil, roots, grass, weeds, stones larger than 1/2", and foreign matter. Topsoil, excavated or imported to be used in areas receiving planting, shall be of such quality as to support plant life. Refer to Section 01400 for required testing. Approval of topsoil by the Owner's representative will be required prior to placement.

PART 3 -EXECUTION

3.01 SITE CLEARING AND PREPARATION

A. Clearing and Grubbing:

1. Before starting grading/earthwork operations, remove trash including stairways, foundations pavements, underground utilities and strip all vegetation in work area, including roots, and remove all this debris to a legal offsite disposal area. Any buried debris or other contaminated material exposed during subsequent earthwork operations should also be removed.

2. For trees that are to be left standing, carefully and cleanly cut roots and branches that obstruct new construction. Use only hand methods for grubbing inside the drip lines of these trees. Excavations made for removal of any existing tree roots should be cleared of loose materials and backfilled with clean compacted soil.

3. All areas disturbed by clearing and grubbing operations or by surface soil removal shall be scarified to a minimum depth of 10" to 12" inches prior to placing new fill. The material shall be compacted to 90 percent maximum density, unless otherwise specified in accordance with ASTM Standard Test Material D-1557-S1.

4. The stripping work shall include the removal of loose fill that in the judgement of the Geotechnical Engineer, is compressible or contains significant voids. The stripping operation must expose a firm, non-yielding that is free of large voids. The exposed soils should be observed by the Geotechnical Engineer prior to the placement of any fill or sub-ballast.

5. All Oak Bay or Sycamore trees on the subject property and within 20 feet of all adjoining properties shall be identified on the site plans! The trees shall be identified by trunk diameter, 125% drip line and species. Call Parks, Recreation & Community Services at (818) 548-3736 for Tree fence inspection prior to commencing work.

Prohibit trenching or continuous digging, grading (removing or adding soil) or storage of equipment or building materials within the drip line of the Oak & Bay Sycamore tree(s). Piers and grade beam footings shall not be required within the drip line *plus 25%* of the Oak & Bay Sycamore tree(s). (The 125% Drip line shall be defined as that area where the branches stop or terminate *and* shall be equal to 125% of the distance of the line from the trunk to the farthest leaf drip point.) The leaf drip line for each tree shall be measured and confirmed by the contractor in

the four major compass directions. The soil in the 125% drip line area under the trees shall remain fenced off from the construction work and shall remain undisturbed.)

B. Demolition:

1. Remove all structures indicated on the drawings as "To Be Removed", and dispose of debris in a legal offsite disposal area.

3.02 EXCAVATION

A. General:

1. Adverse Subsurface Conditions: Immediately notify District Inspector should unsuitable bearing soil or other adverse subsurface conditions be found which are not indicated by the Drawings or Specifications.

2. Engineered fill beneath and the upper two feet of sub-grade for pavement structural sections should be compacted to at least 95 percent relative compaction as per ASTM D1557. Engineered fill beneath slab-on-grade, pavements, walkways, and backfill along foundations and behind retaining walls should be compacted to at least 90 percent relative compaction. All fill and backfill, structural or non-structural should be placed in loose lifts less than 8 inches thick and moisture conditioned to 1 to 2 percent above optimum moisture content prior to compaction. Compaction tests should be performed every 2 to 18 vertical inches and/or 500 cubic yards of fill, or as determined necessary by the field engineer to verify adequate compaction and ensure proper soil-water content.

   All fill and backfill in the vicinity of structures and retaining walls should consist of on-site soils, excluding clay fills with high plasticity and/or moderate to high expansion potential. For planning purposes of estimating earthwork quantities, the existing soil will compress an average of approximately 10 percent when water conditioned and placed in as an engineering fill.

3. Unauthorized Excavation: If excavations are carried below the elevations indicated without written authorization, the Contractor shall provide satisfactory construction and compaction if necessary to correct the fault as approved by the Soils Engineer at no extra cost to Owner.

4. Excavations and Cut-slopes: Excavations and Cut-slopes shall be examined during grading by the soils engineer. If required, further excavation, over-excavation and refilling, and/or remedial grading of cut slopes shall be performed as directed by the Soils Engineer. Where fill-over-cut slopes are to be graded, unless otherwise approved, the cut portion of the slopes shall be made and approved by the Soils Engineer prior to placement of materials for construction of the fill portions of the slopes. Care should be taken to avoid spillage of loose material down the face of slopes. All loose material shall be removed from the face and toe of slopes prior to completion.

5. Construct all slopes in a workmanlike manner so that they are positioned at their design orientation and slope ratio. Achieving a uniform slope surface by subsequent thin wedge filling will not be allowed. Any add-on correction to a fill slope shall be conducted under the direction and recommendation of the Soils Engineer. The completed face of all exposed fill slopes shall be either overfilled then cut back to a firm compacted surface or, compacted by track rolling or some other acceptable method.

6. Contractor will take care to avoid erosion or unwanted runoff of slopes or debris due to existing irrigation systems or adverse weather.

B. Structures:

1. Perform excavation to a minimum depth of 60” below the depth of foundations and to the dimensions and elevations indicated on drawings within a tolerance of 0.10 feet. Provide additional space as required for the installation of services, the performance of other construction work as required, the inspection of the various types of work, and the installation and stripping of forms, except where approval may be given by the Owner's Representative to deposit certain miscellaneous concrete directly against earth banks. Avoid loosening of soils in bottoms and sides of excavations.

2. Foundations shall be placed at a minimum depth of 18” below the adjacent grade for both interior and exterior footings (bottom of slab at interior). Continuous footings shall have a minimum width of 18”. The foundations shall bear on a minimum of five feet of engineered fill.

C. Retaining Walls:

1. Retaining wall foundations shall be a minimum of 24” into competent material and shall be a minimum of 24” in width.

D. Existing Utilities:

1. Excavations made for the removal of existing underground structures, etc., should be cleared of loose material and backfilled with clean, approved, compacted soil in accordance with these specifications.

E. Protection:

1. Provide adequate cribbing, sheathing and shoring as necessary to safely retain the earth sides of all excavations and trenches from caving and other damage resulting from excavating and/or erosion. Provide suitable forms of protection against property damage and bodily injury to personnel employed on the work and the general public.

   The design, installation and maintenance of required cribbing and shoring shall be entirely that of the Contractor and shall meet the approval of the State Division of Occupational Safety and Health, and the local governing agencies.

2. It shall be the Contractor's full responsibility to furnish and maintain all temporary barricades, warning lights, and other types of protection and prevent accidental injury to the general public and all personnel employed on the project.

3.03 GRADING, GENERAL:

A. Uniformly grade all areas within the limits of this project, including adjacent transition areas. Smooth grade the finished surfaces within the tolerances specified in this Section, and grade with uniform slopes between points where elevations are shown, or between such points and existing grades.

B. Grading Outside Building Lines: Grade areas adjacent to building lines to drain away from structures and to prevent ponding. Where grades are not indicated, grade uniformly level or slope between points for which elevations are given. In absence of more specific grading information, ground shall slope away from building for a minimum distance of 20 feet and a minimum slope of 2 percent. Grade trenches and other drainage flow lines to slope uniformly to avoid standing water.

C. Finished surfaces shall be free from irregular surface changes and shall be constructed to the line, grade and cross section as shown on the plans or as specified herein. Tolerances for these finished surfaces are as follows:

1. Lawn or unpaved areas: 0.10' above or below required elevation; playfields and contour-graded landscape areas may be finished to looser tolerances where required to balance earthwork or blend finished areas, subject to approval by Owner's representative.

2. Walks, Pavements and Building Pads: .05' above or below required sub-grade.

3.04 FILL/BACKFILL, GENERAL

A. The Contractor shall backfill excavations as promptly as work permits, but not until completion of the following:

1. Acceptance of construction below finish grade including, where applicable, damp proofing, water proofing, and perimeter installation.

2. Inspection, testing, approval, and recording locations of underground utilities.

3. Removal of concrete formwork.

4. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structure or utilities, if required.

5. Removal of trash and debris.

6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

B. Placement and Compaction: Place fill or backfill materials in layers not more than 8" in loose depth and compacted to at least 90% of maximum dry density.

1. Before compaction, moisten or aerate each layer as necessary to provide a moisture content above 1 to 2 percent of optimum.

2. The upper 24" of pavement sub-grade shall be compacted to at least 95% of relative compaction per ASTM D1557.

3. Engineered fill beneath foundations shall be compacted to at least 95% relative compaction per ASTM D1557.

4. Place backfill materials evenly, adjacent to structures, piping, or conduit. Take care to prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping or conduit to approximately same elevation in each lift.

C. Compaction and Moisture Testing: The soils engineer will perform field tests to check the moisture content and the degree of compaction. The locations and frequency of the test will be taken at the soils engineer's discretion.

3.05 TRENCH EXCAVATION AND BACKFILL: Trenching operations for all underground conduits, and related systems shall be performed under the provisions of this Section. Provide trench shoring, sheeting and bracing in conformance with Title 8 of the California Code of Regulations.

A. Trenches: Excavate trenches to width required for proper installation of underground systems with banks as nearly vertical as practical. Bring bottoms of trenches to required depth, all accurately graded to provide uniform bearing on undisturbed soils for the entire length of each section of piping or conduit, except where necessary to excavate for pipe bells or for pipe bedding indicated or specified in other sections.

B. Remove soft or moving trench bottom soils down to firm native ground, and replace with crushed rock or pea gravel as approved by the soils engineer to provide firm, stable sub-grade. Trench width shall include a minimum clearance on both sides of pipe or conduit of one half the pipe diameter, unless otherwise specified.

C. Where rock is encountered, carry excavation 6" below required elevation and backfill with a 6" layer of crushed rock or pea gravel as approved by the soils engineer prior to installation of pipe.

D. Where utility trenches fall within the zone of influence of footings as defined on the Structural plans, contractor shall deepen footings, relocate piping, or, if approved by the Soils Engineer, modify trench/backfill conditions, materials, or methods, all at no additional cost.

E. The pipe haunches shall be carefully backfilled with bedding material (clean sand, approved granular soil, or other material specified). This bedding material shall be brought to a depth of at least one foot over the top of pipe. The bedding material shall be uniformly tamped and compacted to 90% Maximum Relative Density. Jetting or water flooding will not be allowed unless specifically approved by the Owner's Representative. Refer to specific utility sections for additional or more restrictive bedding requirements.

F. On-site materials or other soils approved for backfill by the soils engineer shall be watered and mixed as required to obtain a moisture content within 2% of optimum prior to placement in lifts over the bedding material. All backfill shall be done under the supervision of soils engineer and shall be compacted to at least 90% of the Maximum Relative

Density as determined by ASTM D1557. The backfill shall be placed in lifts appropriate to the type of compaction equipment being utilized. Trench backfill compaction by jetting or flooding is not permitted unless approved in advance by the Owner's Representative and provided that all excess water can be safely and completely removed from the work area.

G. Field density tests and inspection of the backfill procedures shall be made by the soils engineer during backfilling to see that the proper moisture content and uniform compaction is maintained. The Contractor shall provide test holes and exploratory pits as required by the soils engineer to enable sampling and testing.

H. Cracking or settlement of paving and finish materials over utility trench locations shall be conclusive proof of trench failure. The Contractor at no additional cost to the Owner shall complete removal and re-compaction of the trench and replacement of damaged paving as required.

I. Temporary excavations with vertical side slopes within the onsite soils are expected to be generally stable to a maximum height of 5 feet provided they are free of adverse geologic conditions. Excavations deeper than 4 feet should be shored or sloped back to 1 to 1 or flatter if construction workers are to enter such excavations. Excavations below the ground water table will likely require special equipment and/or techniques (i.e. shoring, dewatering, etc.).

3.7 DEWATERING: Prevent surface water, subsurface or ground water from flowing into excavations and from flooding project site and surrounding area. Do not allow water to flow into City storm drains unless designated as approved disposal point for water runoff. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of sub-grades and foundations. Provide and maintain pumps, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.

3.8 CLEAN UP: Clean up and remove all trash, debris, waste, and surplus and rejected earthwork materials from the Owner's property to a legal disposal area. Conform to pertaining laws, codes and regulations, obtain and pay for hauling and dumping permits, pay all dumping charges, and furnish receipts to Owner's Representative upon demand. Remove planks used to protect surfaces subject to public traffic at finish of each day's operations. Maintain public streets and sidewalks in broom clean condition.

A. Comply with all Environmental Agency regulations relating to the spillage of oil-based products and other environmentally hazardous materials.

3.9 MAINTENANCE

A. Install and maintain all erosion control devices, including sandbag and gravel bag dikes, silt fences, de-silting basins, inlet barricades, vehicle wash traps, and other features called for on the storm water pollution prevention plan (SWPPP) required per Section 01055. Maintain a copy of the approved SWPPP on jobsite, and make it available for inspection by authorized individuals at all times.

B. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape to required tolerances, and compact to required density prior to further construction.

3.110 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Waste Material:

1. Remove waste materials, including unacceptable excavated material, trash and debris, and dispose of it in a legal disposal site away from Owner's property. Advise Owner's representative of dump location, and provide receipts for each load of material leaving site.

B. Excess Material:

1. The contractor shall export all excess materials excavated from project site.

2. Contractor will be responsible for delivering acceptable imported material to the site stockpile and placing it as directed by the Soil Engineer.

END OF SECTION

CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Reinforcing steel for cast-in-place concrete and concrete masonry units. Supports and

B. accessories for steel reinforcement.

1.2 RELATED SECTIONS

A. Section 03 10 00 - Concrete Forms and Accessories. Section 03

B. 30 00 - Cast-in-Place Concrete.

c. Section 03 45 00 - Architectural Precast Concrete: Reinforcement for precast concrete panels. REFERENCES

1.3

ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International.

A. ACI 318- Building Code Requirements For Reinforced Concrete and Commentary; American Concrete Institute International.

B. ACI SP-66 - ACI Detailing Manual; American Concrete Institute International.

c. ASTM A 82- Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

D. ASTM A 184/A 184M - Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement.

E. ASTM A 185- Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete. ASTM A 497/A 497M-

F. Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete.

G. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel 1;3ars for Concrete Reinforcement.

H. ASTM A 704/A 704M - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.

I. ASTM A 706/A 706M- Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.

J. ASTM A 996/A 996M -Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.

K. AWS D1.4 - Structural Welding Code- Reinforcing Steel; American Welding Society.

L.

M. California Code of Regulations (CCR) Title 24 California Building Code (CBC). 2010 Edition. N. CRSI (DA4)-

Manual of Standard Practice; Concrete Reinforcing Steel Institute.

O. CRSI (P1)- Placing Reinforcing Bars; Concrete Reinforcing Steel Institute.

1.4 SUBMITTALS

A. Shop Drawings: Only when deviations are made from the contract documents, submit shop drawings under provision of Section 01 33 13 with deviations clearly identified.

1. Indicate sizes, spacings, locations and quantities of reinforcing steel, wire fabric, bending and cutting schedules, splicing, stirrup spacing, supporting and spacing devices.

B. Manufacturer's Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.

C. Reports: Submit certified copies of mill test report of reinforcement materials analysis, indicate physical and chemical analysis.

D. Welders Certificates: Submit certifications for welders employed on the project, verifying AWS qualifications within the previous 12 months.

1.5 QUALITY ASSURANCE

A. Perform work of this section in accordance with CRSI (DA4), CRSI (P1), ACI 301, and ACI SP-66.

B. Tests of Reinforcing bars shall be in conformance with 2010 CBC Sections 1916A.2 and 1704A.4.1.

PART 2 - PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel: ASTM A 615/A 615M Grade 60.

1. Deformed billet-steel bars.

2. Unfinished.

B. Reinforcing Steel: ASTM A 706/A 706M, deformed low-alloy steel bars.

1. Unfinished.

C. Steel Welded Wire Reinforcement: ASTM A185/A 185M, plain type.

1. Welded Wire Mat Reinforcing: mesh size and gage as indicated on drawings. D. Steel

Welded Wire Reinforcement: ASTM A 497, deformed type.

1. Flat Sheets.

2. Mesh Size and Wire Gage: As indicated on drawings.

E. Reinforcement Accessories:

1. Tie Wire: Annealed, minimum 16 gage acceptable patented system.

2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement, including load bearing pad on bottom to prevent vapor barrier puncture.

3. Provide stainless steel, plastic, or plastic coated steel components for placement within 1 %" of weathering surfaces.

2.2 FABRICATION

A. Fabricate concrete reinforcing in accordance with CRSI (DA4)- Manual of Standard Practice.

B. Welding of reinforcement, in conformance with 2010 CBC Section 1903A.7 with Table 1704A.3, is permitted only with the specific approval of Structural Engineer. Perform welding in accordance with AWS D1.4.

C. Obtain approval from the architect/engineer for additional reinforcing splices not indicated on drawings.

PART 3 - EXECUTION

3.1 PLACEMENT

A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.

C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

D. Do not displace or damage vapor barrier.

E. Accommodate placement of formed openings.

3.2 FIELD QUALITY CONTROL

A. An independent testing agency, as specified in Section 01 40 00, will inspect installed reinforcement for conformance to contract documents before concrete placement.

END OF SECTION