



MARK PESTRELLA, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE

REFER TO FILE: **BRC-2**

June 29, 2026

NOTICE TO BIDDERS "A"

WHITTIER NARROWS RECREATION AREA SPLASH PAD PROJECT - REBID

PROJECT ID NUMBER: BRC0000679

SPECS NO. 7835

This Notice to Bidders "A" extends the bid due date, clarifies certain portions of the Project Manual, responds to bidder's questions, and forms a part of the contract documents.

PROPOSAL DUE DATE

Notice to Bidders "A" extends the deadline for submittal of bids for Whittier Narrows Recreation Area Splash Pad Project – REBID, Project ID Number BRC0000679. **The bid due date is extended from June 30, 2026, to July 7, 2026. Bids are due at 10:00 a.m., via Bid Express.** Bids will be publicly opened, examined, and declared by Public Works at or about 2:00 p.m., on July 7, 2026, via Microsoft Teams. The meeting link will be posted on the Public Works website under the Project ID Number BRC0000679 listing on July 7, 2026.

PROJECT MANUAL

1. Refer to Section 00 01 00 Instructions to Bidders, Section 1.02 Qualifications of Bidders and Subcontractors.

Delete in its entirety and **Replace** with the following:

1.02 QUALIFICATIONS OF BIDDERS AND SUBCONTRACTORS

- a. The Bidder and each listed subcontractor must have a valid license, issued by the Contractors' State License Board, for the type of work proposed to be performed by the Bidder and each listed subcontractor under the contract. The required license(s) is required at time of bid in order to be considered a responsive bid.

- b. This project requires the Bidder to possess a license classification of "A" or "B" at time of bid. The bidder or subcontractor performing the splash pad scope of work must possess a license classification of C-53 at time of bid.
 - c. In addition to Article 1.02, a. and b., the specifications set forth require specialty licenses, experience requirements, and required certifications from manufacturers concerning approved installers. The apparent successful Bidder shall be required to demonstrate to the County's satisfaction within 10 calendar days of the bid opening that the Bidder and proposed subcontractors (whether required to be listed or not) possess these specialty licenses, experience requirements, and required certifications.
 - d. All Bidders and their subcontractors must be registered with the Department of Industrial Relations. Qualified contractors and subcontractors are listed on searchable database at: <https://services.dir.ca.gov/gsp>.
2. Refer to Section 00 03 00, Form of Bid to be Used by Bidders.
- Delete** in its entirety and **Replace** with the following:
- Section 00 03 00 Form of Bid to Be Used by Bidders (Attachment A).
3. Refer to Section 00 04 00 Attestation of Contractor's Qualifications.
- Delete in its entirety and Replace with the following:
- Section 00 04 00 Attestation of Contractor's Qualifications (Attachment B).
4. Refer to Section 00 09 12, Countywide Local and Targeted Worker Hire Program – Best Efforts.
- Delete** in its entirety and **Replace** with the following:
- Section 00 09 12, Countywide Local and Targeted Worker Hire Program – Mandatory (Attachment C).
5. Refer to Section 13 1102 Sprayground Concrete.
- Delete** in its entirety and **Replace** with the following:
- Section 13 1102 Sprayground Concrete (Attachment D).

6. Refer to Section 13 1106 Sprayground Equipment.

Delete in its entirety and **Replace** with the following:
Section 13 1106 Sprayground Equipment (Attachment E).

7. Refer to Section 13 1107 Sprayground Mechanical.

Delete in its entirety and **Replace** with the following:
Section 13 1107 Sprayground Mechanical (Attachment F).

8. Refer to Section 13 3400 Fabricated Engineered Structure.

Delete in its entirety and **Replace** with the following:
Section 13 3400 Fabricated Engineered Structure (Attachment G).

9. Refer to Section 22 0000 Plumbing General Requirements.

Delete in its entirety and **Replace** with the following:
Section 22 0000 Plumbing General Requirements (Attachment H).

10. Refer to Section 32 9000 Planting.

Delete in its entirety and **Replace** with the following:
Section 32 9000 Planting (Attachment I).

QUESTIONS AND ANSWERS:

1. Question: Plan sheet MR-1 equipment note #3, Booster pump on the splash pad #340032 is a single-phase pump while the VFD is for 3 phase pumps. Please clarify or confirm that GFCI breaker and mag starter only are sufficient.

Answer: Booster pump to be 3 phase, Pentair EQK-750 #340033
VFD to be 1 phase, AD075X-2301-N4X, see revised MR-1.

2. Question: Specification 13 11 02 2.2.C notes an ATSM standard A1064 for tie wire. This ATSM number refers to structural metal and makes no mention of tie wire.

Please confirm this standard does not apply to the tie wire to be used for the splash pad and that ATSM A853 is to be used for tie wire.

Answer: ASTM A853 is acceptable.

3. Question: Specifications note geotechnical report for subgrade preparations, please provide project geotechnical reports if available with recommendations for subgrade work.

Answer: Reference Appendix A for geotechnical report and letters.

4. Question: Specification 13 11 06 2.1.B item #3 notes Spray Ring Crystal Fountains NSS800 with 25GPM, while plan sheet SG-2.1 legend notes #3 notes Spray Ring Crystal Fountains NSS600 with 132 GPM. Please clarify which product is to be included in pricing and provide updated plan sheet, pipe sizing, and specification as necessary.

Answer: NSS600 is the correct spray feature per SG-8 AND sg-2.1. (1) required. Flow rate of 132 gpm is correct. Updated specification provided.

5. Question: Specification 13 11 06 2.1.B item #8 notes Misty Mountain by Waterplay #0010-7480, while plan sheet SG-2.1 legend note #8 notes Misty Mountain by Waterplay #0010-7479. Please clarify which product is to be included in pricing and provide updated plan sheet, pipe sizing, and specification as necessary.

Answer: Provide Waterplay Misty Mountain #0010-7479, (1) required. See SG-6 for pipe size. Updated specification provided.

6. Question: Specification 13 11 06 2.1.B item #11 notes Ground Jet NLG, while plan sheet SG-2.1 notes NLG202. Please confirm NLG202 is to be provided.

Answer: NLG202 is correct. Updated specification provided.

7. Question: Specification 13 11 06 2.1.B item #16 and plan sheet SG-2.1 item #16 note Waterplay 0010-4133 which is a standard drain, while detail 3 on sheet SG-9 shows a SS basket and 4" winterization line which is product EST-12274. Please clarify which product is to be provided and installed.

Answer: Provide drain EST-10371 or 0011-6404 with bottom drain kit 0011-9231.

8. Question: Please see attached details for material substitution request for the splash pad main drain Waterplay #0010-4133 with Waterplay #0011-6404 drain with #0011-9231 bottom outlet kit. Please confirm approved equal substitution request.

Answer: This is acceptable.

9. Question: Specification 13 11 02 2.3.C notes PVC bulb water stops but no detail for this work is provided in splash pad plans. Please clarify.

Answer: The PVC bulb-type water stop is to be used at the balance tank floor/wall cold joint OR the swell seal #8 per the balance tank detail.

10. Question: Specification 13 11 06 2.8.A notes 60-gallon Chem-tainer storage tank TC2331IC, while plan sheet MR-1 note 8 states Chem-tainer 55-gallon TC20381A storage tank. Please clarify which is to be provided.

Answer: Provide the 55 Gallon tank TC20381A per the HD approved plans. Updated specification provided.

11. Question: Specification 13 11 06 2.10.A notes a Becsys5 system, while plan sheet MR-1 note #11 notes a Becsys7 chemical controller system. Please clarify which is to be provided.

Answer: Please use the Becsys 7 per MR-1. Updated specification provided.

12. Question: Specification 13 11 06 2.12.A notes (1) 6" manifold, while plan sheet MR-1 note #7 notes (2) 6" manifolds and has two manifold locations on the plan view. Please clarify.

Answer: Provide (2) 6" manifolds per MR-1. Updated specification provided.

13. Question: Specification 13 11 07 2.3.E Make up water control notes a 1" 'Cla-Val' fill system while plan sheet MR-1 note #10 states a 2" 'Cla-Val' system. Please clarify.

Answer: Provide 2" Cla-Val per MR-1.

14. Question: Specification 13 11 02 2.3.A.3.g notes use of Xypex admixtures for spray deck concrete. Please confirm use of Xypex admixture in deck concrete only.

Answer: Xypex admixture should only be used in the wet deck concrete.

15. Question: Plan sheet L1.00 note #2 states Splash pad wet zone to have integral color: Willow Green. Spray ground plans and specifications do not note color. Please confirm.

Answer: Splash Pad Wet Zone to have integral color: Willow Green.

16. Question: Plan sheet MR-8 detail 2 notes panel SP detail. The circuit items, details, breakers, and outlets differ from same panel SP" noted on sheet SE1.02. Please clarify and provide revised plan sheets for pricing of panel.

Answer: The inclusion of Panel SP on the Aquatic's plans on Sheet MR-8 states it is for reference only. Price Panel from the electrical sheets.

17. Question: Plan sheet SG-13 details 1 and 2 show a flush out line that is capped. After construction is complete, there is no way to access this cap without demolishing the concrete pad. This line does not flow to surge tank either. Please confirm if cap out line can be removed from these spray elements by manufacturer.

Answer: Omit the flush out line shown on SG-13. Crystal Fountains has confirmed that they will produce the manifold without the flush out line.

18. Question: Please confirm if RFI's answered in previous bid (02/23/26) remain valid.

Answer: All responses previously provided for Whittier Narrows Recreation Area Splash Pad Project, Project ID Number BRC0000608, Question & Answers from the previous bid will remain valid unless superseded by answers within this bidding process.

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June 29, 2026
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19. Question: Bid Document Section 00 04 00 states that the contractor or its subcontractor performing the splash pad work must hold a valid California Class C-35 license. However, Class C-35 is the license classification for a Lathing and Plastering Contractor.

Answer: License held should be a C-53 – Swimming Pool Contractor License.

20. Question: Construction Note #4 on Plan L-1.00 indicated the Granite Boulder as Additive Alternate No. 4, however the rebid form does not include a section for additive alternates. Should the Granite Boulder (additive alternate No. 4) be included in the base bid or omit it?

Answer: Any add alternates should be included in the base bid.

Also, attached is the Pre-Bid Conference sign-in sheet (Attachment J).

Please notify your subcontractors to this effect.

If you have any questions, please contact Mr. Aram Hakobyan at (626) 458-2181 or ahakobyan@pw.lacounty.gov.

Very truly yours,

MARK PESTRELLA, PE
Director of Public Works



SOO KIM
Division Chief
Business Relations and Contracts Division

SK:ah

Enc.

ATTACHMENT A

SECTION 00 03 00**FORM OF BID TO BE USED BY BIDDERS**

The undersigned proposes to furnish all materials, labor, and equipment required for the construction to complete the Whittier Narrows Recreation Area Splash Pad Project - REBID, in accordance with Drawings and Specifications 7835, including addenda thereto, if any, adopted by the Board of Supervisors, and on file in the office of the Board of Supervisors, as follows:

The lowest bid price shall be determined by adding the following items: Lump Sum Bid in Words (1) + [Extended Overhead Daily Rate (2) x Multiplied by 30 days] = Total Lump Sum Bid. Preference as stated in Section 00 01 00, 1.30, will be applied to the Total Lump Sum Bid, if applicable, to determine the final total bid amount.

1. LUMP SUM BID:

The lump sum bid for the work, including Best Management Practices (BMP) and Construction and Demolition Debris Recycling, requirements complete according to the Drawings and Specifications, will be:

(\$ _____) (_____)
Lump sum bid in figures Lump sum bid in words

2. EXTENDED OVERHEAD DAILY RATE:

The daily rate for the sum of the Contractor's field office and home office overhead applicable to this project, for each day of compensable delay will be:

(\$ _____) (_____)
Daily rate in figures Daily rate in words

3. COUNTY PROGRAM PREFERENCE:

The Local Small Business Enterprise Program Preference is provided by the County for purposes of bid evaluation only, as specified in Article 1.30 of Section 00 01 00. If Bidder is a qualifying Local Small Business Enterprise, check "yes" in the box

below. Section 00 04 38 Request for County Program Preference Consideration must be submitted at the time of bid with a copy of the certification letter issued by the County of Los Angeles Department of Consumer and Business Affairs. If non-qualifying, check "no" in the appropriate box.

LSBE Certification for Non-Federally Funded County Solicitations

Yes ☐ No ☐

NOTE: Any alteration or addition to the Form of Bid may invalidate same. All blank spaces shall be filled out completely. Line out nonapplicable blanks. An incomplete form may invalidate bid. The County reserves the right to waive any informalities or to reject any or all bids or to accept any alternatives when called for.

4. RECEIPT OF NOTICE TO BIDDERS: (IF APPLICABLE)

I hereby certify and declare that I have received, reviewed and incorporated Notice to Bidders "A" dated June 29, 2026, into my Bid.

Executed this day of _____ (Month and Year)

By: _____

(Authorized Signature of a Principal Owner, Officer, or Manager)

NOTE: Any alteration or addition to the Form of Bid may invalidate same. All blank spaces shall be filled out completely. Line out nonapplicable blanks. An incomplete form may invalidate bid. The County reserves the right to waive any informalities or to reject any or all bids or to accept any alternatives when called for.

I (We) certify that on _____, 20____, License No. _____, license classification(s) _____, was issued to me (us), in the name of _____, by the Contractors' State License Board, pursuant to California Statutes of 1929, as amended, and that said license has not been revoked.

Firm Ownership Information

Check where applicable:

1. ☐ Minority-Owned
 ☐ Woman-Owned
 ☐ Disadvantaged-Owned
 ☐ Disabled Veteran-Owned
 ☐ LGBTQQ-Owned

2. ☐ An individual
 ☐ A corporation. Name
 state or territory of
 Incorporation

☐ A copartnership

☐ A joint venture

Race/Ethnic Composition

For statistical purposes only.

- ☐ Black/African American
☐ Hispanic/Latino
☐ Asian or Pacific Islander
☐ Native Americans
☐ Subcontinent Asian
☐ White

If a copartnership or joint venture, list names of individuals comprising same below

Date signed _____, 20____

Respectfully submitted,

Place _____

City and State

Firm Name (if applicable)

Bidder's address, E-mail address, and telephone:

Number and Street

Signature and Print Name

City and State

Zip Code

Title and E-mail Address

Telephone

Signature and Print Name

Fax

Title and E-mail Address

ATTACHMENT B

SECTION 00 04 00

ATTESTATION OF CONTRACTOR'S QUALIFICATIONS

General Contractor's Firm Name (as shown on bid): _____

As specified in the bidding documents, in order to qualify to bid on this project, the General Contractor must have an active and valid Class "A" or "B" license. Contractor or it's Subcontractor performing splash pad work (Contractor Licensee, RME/RMO) has a valid California Class C-53 at time of bid and have continuously held in good standing within the last five (5) years, constructed at least two (2) commercially designed municipal and public-use Spray Grounds, each of which have incorporated a minimum size of 1,000 square feet of surface area with a self-modulating balance tank.

The general contractor hereby certifies to the County of Los Angeles that it possesses the qualifying experience.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge.

Executed this _____ day of _____, 20__ at _____
(Month) (City and State)

By: _____
(Signature of owner or officer of the General Contractor)

(Title)

SECTION 00 04 00

ATTESTATION OF CONTRACTOR'S QUALIFICATIONS

The general contractor shall submit verification and justification of its qualifying experience on this County provided form as part of its bid submittal. Failure to submit the information at the time of bid and to meet requirements for qualifying experience may result in a determination by the County that the Bidder is non-responsive and/or not qualified.

The County will determine, in its sole discretion, whether or not the information provided meets the requirements for qualifying experience in order for the general contractor to be considered a qualified bidder for this project.

PROJECT 1:

Experience provided by General Contractor: Name _____

Or experience provided by Subcontractor: Name _____

Project Name	Total Square Footage	Owner Contact Name and Address	Owner Phone and Email Address	Final Contract Value	Date Completed

Project description:

PROJECT 2:

Experience provided by General Contractor: Name _____

Or experience provided by Subcontractor: Name _____

Project Name	Total Square Footage	Owner Contact Name and Address	Owner Phone and Email Address	Final Contract Value	Date Completed

Project description:

For shade sails:

Manufacturer Experience: Bidder must show evidence of at least one (1) public municipal installation where manufacturer's product as proposed, or comparable manufacturer, (500 sq.ft. pre engineered shade sail area), pursuant to this bid has been installed within the last five (5) years.

PROJECT 1:

Experience provided by General Contractor: Name _____

Or experience provided by Subcontractor: Name _____

Project Name	Total Square Footage	Owner Contact Name and Address	Owner Phone and Email Address	Final Contract Value	Date Completed

Project description:

For Pre-Fab Structure:

Manufacturer Qualifications:

1. Minimum of five (5) years in the shelter construction industry.
2. Full-time on-staff Licensed Engineer.
3. Full-time on-staff Quality Assurance Manager.
4. All welders AWS Certified.
5. Manufacturer owned and controlled finishing system to include shot blast, pretreatment, primer, and top coat.

Manufacturer Name: _____

Contact Information: _____

Website: _____

Required Manufacturer's Certifications:

• AISC Certified Building Fabricator, (American Institute of Steel Construction) Certified Building Fabricator is an AISC Quality Management Systems (QMS) Certification which sets the quality standard for the structural steel industry.

• PCI 4000 S Certified, Certification through Powder Coating Institute for original equipment manufacturers (OEMs) to evaluate process on entire finish system to add powder coat over steel

ATTACHMENT C

SECTION 00 09 12

COUNTYWIDE LOCAL AND TARGETED WORKER HIRE PROGRAM - MANDATORY

PART 1 – GENERAL

1.01 SUMMARY

This Section 00 09 12 includes:

Part 1 – General

1.01 – Summary

1.02 – Definitions

1.03 – Local and Targeted Worker Hire Program (LTWHP)

Part 2 – Administration

2.01 – Administration & Compliance

2.02 – Jobs Coordinator Minimum Qualifications

2.03 – Responsibilities of the Jobs Coordinator

2.04 – Community Service Providers

Part 3 – Forms

3.01 – Form 00 09 12-A: LTWHP Craft Employee Request Form

3.02 – Form 00 09 12-B: LTWHP Workforce Utilization Plan

3.03 – Form 00 09 12-C: FPL List of Zip Codes

3.04 – Form 00 09 12-D: Local and Targeted Worker Hire Status Report

3.05 – Form 00 09 12-E: Approved Jobs Coordinators List

1.01 MANDATORY HIRING REQUIREMENTS FOR THIS PROJECT

The County of Los Angeles has implemented a Local and Targeted Worker Hire Policy (LTWHP) to facilitate the hiring of Local and Targeted workers. Pursuant to this policy, this project has a **mandatory hiring requirement** of at least 30 percent of total California Construction Labor Hours worked be performed by a qualified Local Resident and at least 10 percent of total California Construction Labor Hours worked on this project shall be performed by County residents classified as a Targeted Worker. Hours worked by a Targeted Worker who is also a Local Resident may be applied towards both the mandatory 30 percent Local Hire and 10 percent Targeted Worker Hire requirement.

Including, a minimum ratio of one apprentice hour for every five journeyman hours shall be enforced, per State Labor code requirement, and the Contractor will strive to obtain half of all apprentice hours on the project be performed by Local and Targeted Workers. In addition, there shall be a **mandatory** requirement to use a Jobs Coordinator to be hired directly by the Contractor, prior to the start of work on the project. The Jobs Coordinator is an independent third-party individual, entity, or employee with whom the Contractor enters into a contract or employs to facilitate the implementation of the Local and Targeted

Worker Hiring Requirements of this Agreement. The Jobs Coordinator may be selected from the approved Jobs Coordinators list available as Form 00 09 12-E. If the Contractor utilizes an employee as a Jobs Coordinator, the Jobs Coordinator must be able to demonstrate or document to the County the minimum qualifications and/or experience to fulfill the duties and responsibilities as outlined in Sections 2.02 and 2.03.

1.02 DEFINITIONS

Terms used in the implementation of the LTWHP shall be defined as follows:

- A. **California Construction Labor Hours** – Includes all craft worker hours performed on the project by California residents, excluding the hours performed by off-site material fabricators, designers, project office staff, or vendors.
- B. **Certified Payroll Reports** – The Contractor shall comply with the requirements of Section 1776 of the Labor Code, State of California for the submission of Certified Payroll Reports (CPR). The Contractor and its subcontractors shall submit a copy of all CPR's to the County on a monthly basis, no later than on the first Monday of the subsequent month. Contractor and its subcontractors shall submit all CPR's to the County electronically if an online system is designated by the County.
- C. **Community Service Providers** – A network of public and private partners working to support workers and businesses by serving their employment and training needs. These providers include local one-stop job/career centers funded by the Federal Workforce Innovation and Opportunities Act (WIOA). These centers help businesses find skilled workers and connect customers to work related training and education; most services are available at no cost. Examples of Community Service Providers are listed in Section 2.04.
- D. **Craft Employee Request Form** – The form used by the Contractor and its subcontractors to request dispatch of craft workers (including, but not limited to, apprentices and journeymen), who are Local Residents or Targeted Workers, from a Community Service Provider or union hiring hall in the event that assistance in obtaining such workers is needed. The request form is submitted by the Contractor/subcontractors, completed and executed by the Community Service Provider or union hiring hall, and a copy retained by the Contractor for auditing purposes.
- E. **Jobs Coordinator** – An individual or firm that facilitates implementation of the Targeted Worker hiring requirements of the County of Los Angeles for the Contractor/subcontractors. The Jobs Coordinator must be able to demonstrate or document to the County the requisite qualifications and/or experience to fulfill the duties and responsibilities as outlined in Section 2.02 and 2.03.
- F. **Local and Targeted Worker Hire Status Report** – A monthly report required to be submitted to the County as listed on Form 00 09 12-D.
- G. **Local Resident** – A Local Resident is defined as an individual whose primary place of residence is within the Tier 1 or Tier 2 ZIP Codes of the County, as listed in Forms 00 09 12-A and 00 09 12-C.

- H. **Workforce Utilization Plan** – Form 00 09 12-B submitted by the Contractor on behalf of itself and its subcontractors prior to commencing work, specifying a Workforce Utilization Plan, which contains the workforce plan and schedule for the hiring of qualified Local Residents and Targeted Workers, including the use of the subcontractors' workforce to meet the LTWHP hiring requirement. The Contractor shall submit updates of the Workforce Utilization Plan to reflect changes in project conditions, schedules, or subcontractors.
- I. **Targeted Worker** - A Targeted Worker is an individual who is a County resident and faces at least one or more of the following barriers to employment:
1. Has a documented annual income at or below 100 percent of the Federal Poverty Level;
 2. No high school diploma or GED;
 3. A history of involvement with the criminal justice system;
 4. Protracted unemployment (receiving unemployment benefits for at least 6 months);
 5. Is a current recipient of government cash or food assistance benefits;
 6. Is homeless or has been homeless within the last year;
 7. Is a custodial single parent;
 8. Is a former foster youth; or
 9. Is a veteran, or is the eligible spouse of a veteran of the United States armed forces, under Section 2(a) of the Jobs for Veterans Act (38 U.S.C.4215[a]).
 10. Eligible Migrant and seasonal farmworkers
 11. English Language Learners
 12. Older Individuals (55+)
 13. Disabled
 14. Individuals with Low levels of Literacy
 15. Multi-Craft Core Curriculum (MC3) program graduates
- J. **Tier 1 Zip Codes** – Tier 1 ZIP Codes are those Zip codes listed in Form 00 09 12-A.
- K. **Tier 2 Zip Codes** – Tier 2 ZIP Codes are those Zip codes listed in Form 00 09 12-C.

1.03 LOCAL AND TARGETED WORKER HIRE PROGRAM

- A. The Contractor and its subcontractors shall meet the following minimum mandatory Local Resident and Target Worker hiring requirements:
1. At least 30 percent of total California Construction Labor Hours worked on the project must be performed by a qualified Local Resident;

2. And at least 10 percent of total California Construction Labor Hours worked on the project shall be performed by a Targeted Worker. The hours worked by a Targeted Worker who is also a Local Resident may also be applied towards the 30 percent Local Resident hiring requirement.
 3. A minimum ratio of one apprentice hour for every five journeyman hours shall be enforced, per State Labor code requirement, and the Contractor will strive to obtain half of all apprentice hours on the project be performed by Local and Targeted Workers.
 4. In addition, there shall be a mandatory requirement to use a Jobs Coordinator, as that term is defined in Section 1.02, to facilitate implementation of the Targeted hiring requirements of this Policy; and the Contractor shall ensure the mandatory hiring requirements provided for Local and Targeted Workers are met in accordance with this Policy.
- B. The available pool of Local Residents whose primary place of residence is within Tier 1 ZIP Codes (listed under Form 00 09 12-A), must first be exhausted in the manner specified in Section 2.01G before employing worker(s) from Tier 2 ZIP Codes (listed under Form 00 09 12-C).
- C. All California Construction Labor Hours shall be included in the calculation for the percentage requirements set forth in Section 1.03 A.
- D. The Contractor and its subcontractors shall not discriminate against or give preference to any particular individual or group based on race, color, gender, sexual orientation, age or disability.

PART 2 – ADMINISTRATION

2.01 ADMINISTRATION & COMPLIANCE

- A. Prior to start of work on the project, the Contractor shall perform the following:
1. The Contractor shall hire a Jobs Coordinator for the project in accordance with Section 2.02.
 2. The Contractor and all subcontractors of every tier shall coordinate with the Jobs Coordinator for services to support their efforts in meeting the targeted hiring percentages as described in Section 1.01 of this Specification.
- B. The Contractor and its subcontractors shall use the Craft Employee Request Form (Form 00 09 12-A) for all requests for dispatch of qualified Local Residents and Targeted craft workers (including apprentices and journeymen) in the event that assistance in obtaining such workers is needed from a Community Service Provider, union hiring hall, or other source.
- C. Prior to commencing work, the Contractor, on behalf of itself and its subcontractors, shall submit a Workforce Utilization Plan (Form 00 09 12-B) to the County Project Manager that contains the workforce hiring plan and schedule for the hiring of qualified Local and Targeted Workers and the assignment and use of the subcontractors' workforce to meet the Local Worker Hiring requirement. The Contractor, thereafter, shall submit updates of the Workforce Utilization Plan to reflect changes in project conditions, schedule, or subcontractors.

- D. No later than the 15th calendar day of each month, the Contractor shall submit to the designated County representative a completed Local and Targeted Hire Status Report containing the relevant information for the preceding month. The Local and Targeted Hire Status Report shall contain, at a minimum, the information specified below for Contractor and its subcontractors:
1. For each California Project Craft Worker (apprentices and journeymen): (a) the total labor hours, total number of all workers (apprentices and journeymen), hours worked on the project; and (b) the wages earned on the project.
 2. Total number of Local Residents (apprentices and journeymen), hours worked (apprentices and journeymen), segregated by Tier 1 and Tier 2 Residency Preference Areas, and wages earned by each Local Resident.
 3. Total number of Targeted Worker hours worked (apprentices and journeymen by Tier 1 and Tier 2 Residency Preference Areas) and Targeted worker data and workers demographic profile.
 4. Total number of hours worked by Local Residents by subcontractor.
- E. No later than the 15th calendar day of each month, the Contractor and all its subcontractors shall submit the Local and Targeted Hire Status Report to the designated County representative (or submit the data online if the County elects to provide an online system), to demonstrate progress in meeting the Workforce Utilization Plan. Failure to submit the Local and Targeted Worker Hire Status Report to the designated County representative shall be deemed to constitute zero percent local hire participation for the month and the County may retain the Monthly Mandatory Compliance Withholding (MMCW) amount.
- F. The County may, in its sole discretion, elect to provide an online system for the Contractor and all of its subcontractors to input the data required in the Local and Targeted Worker Hire Status Report. If the County so elects, the Contractor and subcontractors shall utilize that online system in lieu of completing and submitting the Local and Targeted Worker Hire Status Report.
- G. The Contractor and its subcontractors shall first meet the Local and Targeted Worker Hire participation requirement by employing qualified workers from the Tier 1 Preference Area. If the Contractor is unable to meet their entire Local and Targeted Worker Hire need from this area, it must submit to the Project Manager a statement certifying that it has exhausted all available qualified Local and Targeted Workers from this area during a 48-hour period before pursuing workforce from the Tier 2 Preference Area.
- H. The Contractor's compliance with the approved Workforce Utilization Plan will be evaluated monthly using the Local and Targeted Hire Status Report.
- I. To enforce compliance on contracts containing mandatory hiring requirements, an amount will be withheld from the monthly progress payment to the Contractor in proportion to the deficit percentage of the mandated Local and Targeted Hiring Requirement percentage and the actual percentage obtained. The maximum that

may be withheld during the duration of the project is one percent of the total construction contract amount, but not to exceed \$500,000, comprised of 0.75 percent for Local Worker requirement compliance, and 0.25 percent for Targeted Worker requirement compliance. This amount is called the Monthly Mandatory Compliance Withholding (MMCW) amount. The percentage of the MMCW that will be withheld for a given month will be the same as the percentage of the deficit in achieving the LTWHP targets for that month.

The maximum MMCW amount is determined as follows:

Construction Contract Value X .75% ÷ Number of months in baseline construction schedule = MMCW for Local Workers

Construction Contract Value X .25% ÷ Number of months in baseline construction schedule = MMCW for Targeted Workers

- J. If the Targeted Worker Hiring mandatory requirements of the Policy have not been satisfied as required for a project, the Contractor nonetheless may be deemed to be in compliance if the Contractor demonstrates both (a) that the Contractor and each of its subcontractors have complied with all other requirements of the Policy, and (b) that the Contractor and each of its subcontractors have satisfactorily demonstrated the following:

Documented contact with the Department of Workforce Development, Aging and Community Services, America Job Centers or with an agency that supports and provides employment and training services for Targeted Workers in construction employment, and in which instance the agency did not refer a qualified Targeted Worker to the Contractors or subcontractor within 48 hours of the job request for fair consideration of the Targeted Worker.

- K. At the conclusion of the project, the County will conduct a final evaluation of the Contractor's compliance with the Workforce Utilization Plan as described in Section 2.01.C and execute a final release of funds, if applicable, as described in Section 2.01.I. The Contractor's failure to meet the Local and Targeted Worker Hiring Requirement in Section 1.01 by the conclusion of the project shall result in the County imposing liquidated damages and deducting such amount otherwise owed to the Contractor in its final payment. The County will not be required to pay interest on any amounts withheld during the term of the contract.
- L. The County and Contractor specifically agree that the MMCW amount, minus the total value of previous releases, in direct proportion to the actual Local and Targeted hire participation levels achieved by the Contractor consistent with the Workforce Utilization Plan, shall be imposed as liquidated damages, and not as a forfeiture or penalty. It is further specifically agreed that the aforesaid amount is presumed to be the amount of damages sustained due to the Contractor's inability to achieve the Local and Targeted Worker Hiring Requirement in Section 1.01.
- M. For construction contracts where the work is performed for a private County Lessee, the Lessee shall be responsible for administration of all aspects of this Section 2.01,

including the calculation and collection of the Local Hire Participation Compliance Rectification Amount. At the conclusion of the project, the Lessee shall pay over the designated County representative any such amounts collected and shall provide a full report to the designated County Representative of all monthly information required to be collected in this Section 2.01.

2.02 JOBS COORDINATOR MINIMUM QUALIFICATIONS

- A. If the Jobs Coordinator is selected from the approved list provided on Form 00 09 12-E, that Jobs Coordinator shall be deemed to meet the minimum qualifications. No additional qualification information need be provided.
- B. If the Contractor desires to utilize a Jobs Coordinator not listed on Form 00 09 12-E (*i.e.*, a Contractor employee or other non-listed firm), the Contractor must be able to demonstrate that the selected Jobs Coordinator meets the minimum qualifications listed in this Section 2.02. When requested by the County, the Contractor shall provide documentation sufficient to satisfy the County, in the County's sole discretion, that the selected Jobs Coordinator meets the minimum qualifications listed in this Section 2.02.
- C. A minimum of 3 years' experience as providing Jobs Coordinator services. Successful candidates for Jobs Coordinators must be able to demonstrate the in-depth ability, experience, and possess the necessary staff capable of providing required services.
- D. A successful Jobs Coordinator must demonstrate they possess working relationships with the Building Trades, Targeted Workers and signatory craft councils and unions operating within County of Los Angeles' jurisdiction by describing previous interactions, relationships, and partnerships with these party's/groups.
- E. A successful Jobs Coordinator must be able to demonstrate that it has experience on projects similar in scale to the current project.
- F. A successful Jobs Coordinator must demonstrate that they possess experience with Targeted Worker populations.
- G. A successful Jobs Coordinator must have experience in working with work-source centers, faith-based organizations and other Community Based Organizations (CBOs).
- H. A successful Jobs Coordinator must be familiar with incentive programs and tax credit subsidies provided by the State and Federal government to hire workers that fit the corresponding category. Jobs Coordinator to describe their experience in working with these programs

2.03 RESPONSIBILITIES OF THE JOBS COORDINATOR

The Contractor shall ensure that the selected Jobs Coordinator effectively performs the following duties:

- A. The Jobs Coordinator shall develop, create, design and market specific programs to attract Targeted Workers for construction opportunities (e.g. handouts and fliers for “walk-ins” demonstrating program entrance procedures).
- B. The Jobs Coordinator shall coordinate services for Contractor to use in the recruitment of Targeted Workers.
- C. The Jobs Coordinator shall educate and assist Contractor on incentives provided by state or federal programs for on-the-job training and employer tax credits.
- D. The Jobs Coordinator shall conduct orientations, job fairs and community outreach meetings in the local community.
- E. The Jobs Coordinator shall screen and certify the Targeted Workers status.
- F. The Jobs Coordinator shall establish a referral and retention tracking mechanism for placed Targeted workers and apprentices.
- G. The Jobs Coordinator shall network with the various work source centers, community and faith-based organizations and other non-profit entities that provide qualified Local and/or Targeted Workers.
- H. The Jobs Coordinator shall coordinate with the various building trades crafts for referral and placement of Targeted Workers.
- I. The Jobs Coordinator shall maintain a database of pre-qualified Targeted Workers for referral.
- J. The Jobs Coordinator shall be the point of contact to provide information about available job opportunities on projects.
- K. The Jobs Coordinator shall assist the subcontractors with their documentation effort and other reports as it relates to their Targeted Worker hiring requirements.
- L. The Jobs Coordinator shall work closely with County staff, the Building Trades, and subcontractors in achieving the Targeted hiring requirements.

2.04 COMMUNITY SERVICE PROVIDERS

Examples of Community Service Providers that may be used by Contractor and subcontractors to identify Local Residents and Targeted Workers include:

- Department of Economic Opportunity County of Los Angeles: <http://www.opportunity.lacounty.gov/>
- Cal Jobs: <http://www.caljobs.ca.gov/vosnet/Default.aspx>
- Helmets to Hardhats: <https://www.helmetstohardhats.org>
- America's Job Center of California: [American Job Center Finder | CareerOneStop](#)

PART 3 – FORMS

Form 00 09 12-A: LTWHP Craft Employee Request Form

Form 00 09 12-B: LTWHP Workforce Utilization Plan for: **Whittier Narrows Recreation Area Splash Pad Project**

Form 00 09 12-C: FPL List of Zip Codes

Form 00 09 12-D: Local and Targeted Worker Hire Status Report

Form 00 09 12-E: Approved Jobs Coordinators List



00 09 12-A

COUNTYWIDE CWA – WHITTIER NARROWS SPLASH PAD PROJECT- REBID

The County of Los Angeles Countywide Community Workforce Agreement applies to this project. This project shall include a *mandatory* hiring goal of at least 30% California Construction Labor Hours performed by either Tier 1 or Tier 2 Qualified Local Residents and at least 10% of California Construction Labor Hours on the project performed by those classified as a Targeted Worker. California Construction Labor Hours is defined as all craft worker hours performed on the project by California residents, excluding the hours performed off site metal fabricators, designers, project office staff, or vendors. Hours worked by a Targeted Worker who is also a Tier 1 or Tier 2 Qualified Local Resident may be applied towards the 30% goal.

CONTRACTOR USE ONLY

Please complete and fax or email this form to the applicable union to request craft workers that fulfill the hiring requirements for this project. After faxing this request, call the Local Union to verify receipt and substantiate their capacity to furnish workers as specified below. Please print Fax or Email Transmission Verification Reports and keep copies as records.

TO:	Local Union #:	CC:	County Project Labor Coordinator:
	Email/Fax:		Email/Fax:
FROM:	Contractor:		
	Issued by:		
	Email/Phone/Fax:		

UNION CRAFT WORKER REQUEST:

Craft Classification	Journeyman or Apprentice	Tier 1 or Tier 2 Worker	Targeted Worker	No. of Workers Requested
	☐ JM ☐ APP	*	**	
	☐ JM ☐ APP	*	**	
	☐ JM ☐ APP	*	**	
Total Number of Workers Requested:				

In accordance with the CWA, Article 7, Referral, County and Contractor are requesting the Union:

- * Provide workers from Tier 1. If the supply of available Tier 1 workers has been exhausted, please provide workers from Tier 2, if available.
- ** Provide targeted workers, if available.

WORKER REPORTING INSTRUCTIONS:

Reporting Date/Time	
Project Location:	
Reporting To:	
On Site Phone:	
Special Instructions:	

UNION USE ONLY

Please complete the "Union Use Only" section and fax or email both pages to the requesting Contractor and Project Labor Coordinator.

Dispatch Received by & Date:

Date Worker(s) Dispatched:						
Name	Helmets to Hardhats	Journeyman or Apprentice	Tier 1 or Tier 2 Worker?	Zip Code	Targeted Worker?	Targeted Category ** if known
	☐ Y ☐ N	☐ JM ☐ APP	☐ Tier 1 ☐ Tier 2 ☐ No*		☐ Y ☐ N	
	☐ Y ☐ N	☐ JM ☐ APP	☐ Tier 1 ☐ Tier 2 ☐ No*		☐ Y ☐ N	
	☐ Y ☐ N	☐ JM ☐ APP	☐ Tier 1 ☐ Tier 2 ☐ No*		☐ Y ☐ N	

* No: By selecting "No" for the "Tier 1 or Tier 2 Worker" certifies, on behalf of the Union, that the Union has exhausted all reasonable efforts to locate and dispatch such Tier 1 or Tier 2 worker.

** Please indicate number of the Targeted Worker category (1 through 15, as shown on page 2). Indicate multiple categories per worker, if applicable.



00 09 12-A

COUNTYWIDE CWA – WHITTIER NARROWS SPLASH PAD PROJECT- REBID

**QUALIFYING ZIP CODES - Below are ALL Tier 1 and Tier 2 Qualifying Zip Codes.
Tier 1 Zip Codes are shaded.**

Note: Tier 1 Zip Codes must be exhausted first before moving into Tier 2 Zip Codes.

90001	90002	90003	90004	90005	90006	90007	90008	90010	90011
90012	90014	90015	90016	90017	90018	90019	90020	90021	90022
90023	90026	90028	90029	90031	90032	90033	90034	90035	90036
90037	90038	90040	90042	90043	90044	90047	90057	90058	90059
90061	90062	90063	90089	90201	90220	90221	90222	90242	90247
90250	90255	90262	90270	90280	90301	90302	90303	90304	90401
90501	90601	90602	90640	90706	90716	90723	90731	90744	90802
90804	90805	90806	90810	90813	91001	91046	91103	91201	91203
91204	91205	91303	91331	91335	91340	91342	91343	91352	91401
91402	91405	91406	91411	91502	91601	91605	91606	91702	91706
91731	91732	91733	91744	91746	91754	91755	91766	91767	91768
91770	91776	91803	93243	93534	93535	93543	93550	93552	93553
93560	93591	X	X	X	X	X	X	X	X

**** A Targeted Worker** is an individual who is *both* a County resident and who faces **one or more** of the following barriers to employment:

1. Has a documented annual income at or below 100% of the Federal Poverty Level
2. Has no high school diploma or GED
3. Has a history of involvement with the criminal justice system
4. Is experiencing protracted unemployment (receiving unemployment benefits for at least 6 months)
5. Is a current recipient of government cash or food assistance benefits
6. Is homeless or has been homeless within the last year
7. Is a custodial single parent
8. Is a former foster youth
9. Is a veteran or is the eligible spouse of a veteran of the United States armed forces under Section 2(a) of the Jobs for Veterans Act (38 U.S.C.4215[a])
10. Is an eligible migrant and seasonal farm worker
11. Is currently an English language learner
12. Is an older individual (55+)
13. Is disabled
14. Is an individual with a low level of literacy
15. Is a Multi-Craft Core Curriculum (MC3) Program Graduate

[This form is not intended to replace a Union's Dispatch or Referral Form normally given to the employee when being dispatched to the jobsite.]

Contractor: All Contractors**Workforce Utilization Plan / Projection Hours****Project Name:** WHITTIER NARROWS SPLASH PAD PROJECT- REBID**Date:** _____**Project Duration:** TBD

	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Total
PROJECTED PROJECT HOURS														
Local Hours (Tier 1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Hours (Tier 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Local Hours (%)														
Targeted Worker Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Targeted Worker Hours (%)														
ACTUAL PROJECT HOURS														
Local Hours (Tier 1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Hours (Tier 2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Local Hours (%)														
Targeted Worker Hours	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Targeted Worker Hours (%)														

**COUNTY OF LOS ANGELES
LOCAL AND TARGETED WORKER HIRE POLICY
QUALIFYING ZIP CODES**

Tier 1, 2 and Qualifying Zip Codes are defined as:

Tier 1 Zip Code: A Tier 1 Qualified Local Resident is defined as a County resident whose primary residency is: (1) within five (5) miles of the proposed project site; and (2) is within a Qualifying Zip Code. If a qualifying Zip Code is partially located within the 5-mile radius, then the entire Zip Code is considered as a Tier I Zip Code, and workers living in that entire Zip Code area may qualify as Tier I hiring.

Tier 2 Zip Code: A Tier 2 Qualified Local Resident is defined as a County resident whose primary residency is: (1) within a Qualifying Zip code; and (2) that Qualifying Zip Code is beyond five (5) miles of the proposed project site.

Qualifying Zip Code: A Qualifying Zip Code is defined as a zip code within the County of Los Angeles, where either: (1) the average percentage of households living below 200 percent of the Federal Poverty Level (FPL) for that individual's primary residency's Zip Code is greater than the County average for such households; or (2) the Zip Code is one of 11 additional Zip Codes determined by the Board on September 6, 2011 to be a Zip Code where at least 30 percent of the population is living in poverty, and with an unemployment rate of at least 150 percent of the national average.

Zip Code	Region	SD1	SD2	SD3	SD4	SD5
90001	Florence / South Central (City of LA)		X		X	
90002	Watts (City of LA)		X		X	
90003	South Central (City of LA)		X			
90004	Hancock Park (City of LA)	X	X	X		
90005	Koreatown (City of LA)		X			
90006	Pico Heights (City of LA)	X	X			
90007	South Central (City of LA)	X	X			
90008	Baldwin Hills / Crenshaw (City of LA) / Leimert Park (City of LA)		X			
90010	Wilshire Blvd (City of LA)		X			
90011	South Central (City of LA)	X	X			
90012	Civic Center (City of LA) / Chinatown (City of LA)	X				
90014	Los Angeles	X				
90015	Downtown Los Angeles (City of LA)	X	X			
90016	West Adams (City of LA)		X			
90017	Los Angeles	X				
90018	Jefferson Park (City of LA)		X			
90019	Country Club Park (City of LA) / Mid City (City of LA)		X			
90020	Hancock Park (City of LA)		X			
90021	Downtown Los Angeles (City of LA)	X				
90022	East Los Angeles	X			X	
90023	East Los Angeles (City of LA)	X			X	
90026	Echo Park / Silverlake (City of LA)	X				
90028	Hollywood (City of LA)			X		X
90029	Downtown Los Angeles (City of LA)	X		X		
90031	Montecito Heights (City of LA)	X				
90032	El Sereno (City of LA) / Monterey Hills (City of LA)	X				
90033	Boyle Heights (City of LA)	X				
90034	Palms (City of LA)		X	X		
90035	West Fairfax (City of LA)		X	X		
90036	Park La Brea (City of LA)		X	X		
90037	South Central (City of LA)		X			
90038	Hollywood (City of LA)			X		
90040	Commerce, City of	X			X	

COUNTY OF LOS ANGELES
LOCAL AND TARGETED WORKER HIRE POLICY
QUALIFYING ZIP CODES

Zip Code	Region	SD1	SD2	SD3	SD4	SD5
90042	Highland Park (City of LA)	X				
90043	Hyde Park (City of LA) / View Park / Windsor Hills		X			
90044	Athens		X			
90047	South Central (City of LA)		X			
90057	Westlake (City of LA)	X				
90058	Vernon	X	X		X	
90059	Watts (City of LA) / Willowbrook		X		X	
90061	South Central (City of LA)		X			
90062	South Central (City of LA)		X			
90063	City Terrace	X				
90089	Exposition Park(City of LA)		X			
90201	Bell / Bell Gardens / Cudahy				X	
90220	Compton / Rancho Dominguez		X			
90221	East Rancho Dominguez		X		X	
90222	Compton / Rosewood / Willowbrook		X		X	
90242	Downey				X	
90247	Gardena		X			
90250	Hawthorne (Holly Park) / Lawndale (Federal Bldg)		X			
90255	Huntington Park / Walnut Park		X		X	
90262	Lynwood				X	
90270	Maywood				X	
90280	South Gate		X		X	
90301	Inglewood		X			
90302	Inglewood		X			
90303	Inglewood		X			
90304	Lennox		X			
90401	Santa Monica			X		
90501	Torrance		X		X	
90601	Whittier	X			X	
90602	Whittier	X			X	
90640	Montebello	X			X	
90706	Bellflower				X	
90716	Hawaiian Gardens				X	
90723	Paramount				X	
90731	San Pedro (City of LA) / Terminal Island (City of LA)				X	
90744	Wilmington (City of LA)		X		X	
90802	Long Beach				X	
90804	Long Beach				X	
90805	North Long Beach (Long Beach)		X		X	
90806	Long Beach				X	
90810	Carson / Long Beach		X		X	
90813	Long Beach				X	
91001	Altadena					X
91046	City of Glendale					X
91103	Pasadena					X
91201	Glendale					X
91203	Glendale					X
91204	Glendale (Tropico)					X
91205	Glendale (Tropico)					X
91303	Canoga Park (City of LA)			X		
91331	Arleta (City of LA) / Pacoima (City of LA)			X		X
91335	Reseda (City of LA)			X		
91340	San Fernando			X		
91342	Lake View Terrace (City of LA) / Sylmar (City of LA)			X		X
91343	North Hills (City of LA)			X		
91352	Sun Valley (City of LA)			X		X

**COUNTY OF LOS ANGELES
LOCAL AND TARGETED WORKER HIRE POLICY
QUALIFYING ZIP CODES**

Zip Code	Region	SD1	SD2	SD3	SD4	SD5
91401	Van Nuys (City of LA)			X		
91402	Panorama City (City of LA)			X		
91405	Van Nuys (City of LA)			X		
91406	Van Nuys (City of LA)			X		
91411	Van Nuys (City of LA)			X		
91502	Burbank					X
91601	North Hollywood (City of LA)					X
91605	North Hollywood			X		X
91606	North Hollywood			X		X
91702	Angeles National Forest	X				X
91706	Baldwin Park / Irwindale	X				X
91731	El Monte	X				
91732	El Monte	X				
91733	South El Monte	X				
91744	City of Industry / La Puente / Valinda	X				
91746	Bassett / City of Industry / La Puente	X				
91754	Monterey Park	X				
91755	Monterey Park	X				
91766	Phillips Ranch / Pomona / Chino	X				
91767	Pomona	X				X
91768	Pomona	X				
91770	Rosemead	X				X
91776	San Gabriel	X				X
91803	Alhambra	X				
93243	Lebec					X
93534	Lancaster					X
93535	Hi Vista					X
93543	Littlerock / Juniper Hills					X
93550	Palmdale / Lake Los Angeles / Sierra Madre					X
93552	Palmdale					X
93553	Littlerock / Juniper Hills / Pearblossom / Llano					X
93560	North Lancaster					X
93591	Palmdale/Lake Los Angeles					X



LOCAL AND TARGETED HIRE STATUS REPORT
LOS ANGELES COUNTY

Project: SAMPLE NAME
Supervisory District: SD 4
Project Code: PW13950
Contractor(s): Multiple Contractors
Craft(s): Multiple Crafts
Construction Contract Amount: \$0.00
Mandatory Local and Targeted Hiring Goal: 30.00%

From Date: 9/1/2016
To Date: 9/30/2016
Total Forecast Hours: 0.00
Total Project Hours to Date: 0.00
Total Hours Percent Complete: 10.00%

Area	Total Number of Workers Sep 01-Sep 30	% of Total Workers Sep 01-Sep 30	Total Hours Worked Sep 01-Sep 30	% of Total Hours Worked Sep 01-Sep 30	Cumulative Total Number of Workers	Cumulative % of Total Workers	Cumulative Total Hours Worked	Cumulative % of Total Hours Worked	Cumulative Wages w/ Benefits	Cumulative Number of Foremen	Cumulative Foremen Hours	Cumulative Foreman Hours %	Cumulative Number of Journeymen	Cumulative Journeyman Hours	Cumulative Journeyman Hours %	Cumulative Number of Apprentices	Cumulative Apprentice Hours	Cumulative Apprentice Hours %
Tier 1	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Tier 2	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Other in LA County (non-local)	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Outside of LA County	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Employees Not In Specified Zip Lists	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Local and Targeted Workers																		
Local Resident (Tier 1 + Tier 2)	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Targeted Worker	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Demographic Profile																		
African American	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Asian	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Caucasian	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Hispanic	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Native American	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Not Specified	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Two Or More Races	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Other	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Male	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Female	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Veteran	0	0.00%	0.00	0.00%	0	0.00%	0.00	0.00%	\$0.00	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%
Total Employees	0		0.00		0		0.00		\$0.00	0	0.00		0	0.00		0	0.00	

JOB COORDINATOR PANEL

as of December 2023

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SPEC 7835

ATTACHMENT D

**SECTION 13 1102
SPRAYGROUND CONCRETE**

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. Forming for cast-in-place concrete associated with sprayground areas and sprayground area decks.
- B. Reinforcement for cast-in-place concrete associated sprayground areas and sprayground area decks.
- C. Cast-in-place concrete for sprayground area structures. Do not use waterproofing admixture of any kind.
- D. Cast-in-place concrete for sprayground area decks with Xypex C-500 crystalline waterproofing admixture. Water proofing admixture is for sprayground area decks only.
- E. Provide labor, materials and equipment as required to install sealant for all sprayground area deck expansion joints, or any other caulking, as indicated on the aquatic Drawings and herein specified.

1.2 QUALITY ASSURANCE

- A. Qualifications of Workers:
 - 1. The entity performing the work for this Section shall have been successfully engaged with a C-53 license as an RME or RMO for at least the past five (5) years immediately prior to the commencement of the work. The Qualified contractor Shall submit documentation of a minimum of two (2) interactive spray ground play equipment and climb-on structure installations completed in the last five (5) years.
 - 2. For actual construction operations, use only trained and experienced workers with a minimum of three (3) years experience with the materials and methods specified.
 - 3. Provide at least one person who shall be present at all times during execution of the work of this Section, with a minimum of five (5) years experience with the type of materials being installed, the referenced standards, and who shall direct all Work performed under this Section.
- B. General Contractor who wishes to self-perform the Sprayground Excavation work requiring a C-53 license, must possess an active and valid C-53 license. A General Contractor self-performing Sprayground Excavation work, may subcontract any portion(s) of the work to any subcontractor possessing the C-53 license. However, a subcontractor may not subcontract any portion of the work to another subcontractor.
- C. Standards:

1. In addition to complying with the California Building Code (2022 edition), 1908 comply with all pertinent recommendations contained in "Guide to Formwork for Concrete" Publication ACI 347R-14 of the American Concrete Institute.
 2. In addition to complying with California Building Code (2022 edition), comply with all pertinent recommendations contained in "Guide to Presenting Reinforcing Steel Design Details," Publication ACI 315R-18 of the American Concrete Institute.
 3. In addition to comply with all local codes and regulations, comply with all pertinent recommendations contained in American Society for Testing and Materials (ASTM); ASTM C 920 "Standard Specification for Elastomeric Joint Sealants."
 4. Where provisions of applicable codes and standards conflict with the requirements of this Section, the more stringent provisions shall govern.
- D. Tolerances: Construct all sprayground concrete straight, true, plumb and square within a tolerance horizontally of one in 200 and vertically of one in 2000.

1.3 SUBMITTAL AND SUBSTITUTIONS

- A. Provide submittals in conformance with the requirements of Section 01 3300.
- B. Samples and Certificates, Concrete Reinforcement:
1. Provide all data and access required for testing as described in Division 1 of the Specifications.
 2. All material shall bear mill tags with heat number identification. Mill analysis and report shall be made available upon request.
 3. Material not so labeled and identifiable may be required by the Owner's Representative to be tested by the testing laboratory selected by the Owner's Representative and at no additional cost to the Owner, in which case random samples will be taken for one series of tests from each 2-1/2 tons or fraction thereof of each size and kind of reinforcing steel.
 4. Design mix from batch plant demonstrating previous use history and associated strengths at 28 days.
 5. The Contractor shall submit a mix design stamped and signed by a licensed engineer for approval by the Owner's representative prior to any placement of concrete.
 6. The Contractor shall submit a mix design stamped and signed by a licensed engineer for the sprayground area decks which contains the specified Xypex C-500 crystalline waterproofing admixture for approval by the Owner's Representative prior to any placement of concrete.
- C. Submit proof of qualifications as specified in Article 1.2.A of this Section.
- D. Submit reinforcing shop drawings of gutters, floors, dike walls and balance tanks, etc. as shown on the construction drawings.

1.4 PRODUCT HANDLING

- A. Delivery: Deliver materials to the Project Site in the manufacturer's original unopened containers with all labels intact and legible.
- B. Storage: Store materials under cover in a manner to prevent damage and contamination, and store only the specified materials at the Project Site.
- C. Protection: Use all means necessary to protect the sprayground concrete before, during, and after installation and to protect the installed Work specified in other Sections.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative.

PART 2 – PRODUCTS

2.1 CONCRETE FORMWORK

- A. Form Materials:
 - 1. Form Lumber: All form lumber in contact with exposed concrete shall be new except as allowed for reuse of forms in Part 3 of this Section, and all form lumber shall be one of the following, a combination thereof, or an equal approved in advance by the Owner.
 - a. "Plyform," Class I or II, bearing the label of the Douglas Fir Plywood Association; "Inner-Seal" Form as manufactured by Louisiana-Pacific, or equal.
 - b. Douglas Fir-Larch, number two grade, seasoned, surfaced four sides.
 - 2. Form Release Agent: Colorless, non-staining, free from oils; chemically reactive agent that shall not impair bonding of paint or other coatings intended for use.
- B. Ties and Spreaders:
 - 1. Type: All form ties shall be a type which do not leave an open hole through the concrete and which permits neat and solid patching at every hole.
 - 2. Design: When forms are removed, all metal reinforcement shall be not less than two (2) inches from the finished concrete surface.
 - 3. Wire Ties and Wood Spreaders: Do not use wire ties or wood spreaders.
- C. Alternate Forming Systems: Alternate forming systems may be used subject to the advance approval of the Owner.

2.2 CONCRETE REINFORCEMENT

- A. Bars: Bars for reinforcement shall conform to "Specifications for Deformed Carbon-Steel Bars for Concrete Reinforcement," ASTM A-615, Grade 60.
- B. Wire Fabric: Wire fabric shall conform to "Specifications for Carbon Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete," ASTM A1064.

- C. Tie Wire: Tie wire for reinforcement shall conform to "Specifications for Carbon Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete," ASTM A853 black annealed 16-gauge tie wire.

2.3 CAST-IN-PLACE CONCRETE

A. Concrete:

1. All concrete, unless otherwise specifically permitted by the Owner, shall be transit-mixed in accordance with ASTM C94. Concrete for water retaining structures that do not receive a waterproofing finish (such as ceramic tile or sprayground plaster) shall receive a topical waterproofing finish.
2. The control of concrete production shall be under the supervision of a recognized testing agency, selected by the Owner.
3. Quality: All concrete shall have the following minimum compressive strengths at twenty-eight (28) days and shall be proportioned within the following limits:
 - a. 4,000 psi minimum compressive strength.
 - b. 1" maximum size aggregate.
 - c. 6.0 minimum sacks of cement per cubic yard.*
 - d. Maximum water to cement ratio of 0.40 minimum - 0.45 maximum.
 - e. 4" maximum slump.
 - f. Fiber Reinforcement Additive (to be used in gutter hand hold only): See Article 2.3 of this section.
 - g. Xypex Admix C-500 2%-2.5% by weight of cement content. Contact Xypex Technical Services to confirm dosage. (To be used for sprayground decks only.)
* For estimate only: to be determined by mix design.
4. Cement: All cement shall be Portland Cement conforming to ASTM C-150, Type II or V, and shall be the product of one manufacturer.
5. Aggregates:
 - a. Shall conform to "Standard Specifications for Concrete Aggregates," ASTM C33, except as modified herein.
 - b. Coarse Aggregate: Clean sound washed gravel or crushed rock. Crushing may constitute not more than 30% of the total coarse aggregate volume. Not more than 5% flat, thin, elongated or laminated material nor more than 1% deleterious material shall be present. 1" aggregate graded from 1/4" to 1", fineness modulus 6.90 to 7.40. 1-1/2" graded from 1/2" to 1-1/2", fineness modulus 7.80 to 8.20.
 - c. Fine Aggregate: Washed natural sand of hard, strong particles and shall contain not more than 1% of deleterious material, fineness modulus 2.65 to 3.05.
 - d. Aggregate must be certified, non-expansive from a "known" good source.
6. Water: ASTM C1602; Clean, fresh, free from acid, alkali, organic matter or other impurities liable to be detrimental to the concrete (potable).
7. Admixtures: Admixtures shall be used upon approval of the Owner.
 - a. Air-entraining admixture: Conform to ASTM C260.
 - b. Water-reducing admixture: Conform to ASTM C494.

- c. Waterproofing admixture for decks only: Xypex Admix C-500, no substitutions permitted. Conform to ASTM C494.
- 8. Xypex Admix C-500 Dosage: To be used for sprayground decks only.
 - a. General: Xypex Admix must be added to concrete mix at time of batching. It is important to obtain a homogeneous mixture of Xypex Admix with the concrete. Do not add dry Admix powder directly to wet mixed concrete as this could cause clumping and thorough dispersion may not occur.
 - b. Dosage Rate: Under normal conditions, the crystalline waterproofing powder shall be added to the concrete mix at the following rates:
 - i. Xypex Admix C-500 2% – 2.5% by weight of cement content
 - c. Weather Conditions: For mixing, transporting and placing concrete under conditions of high temperature or low temperature, follow concrete practices such as those referred to in ACI 305R (Hot Weather Concreting) and ACI 306R (Cold Weather Concreting) or other applicable standards.
 - d. Concrete Batching & Mixing Procedures: Procedures for the addition of Xypex admixture will vary according to type of batch plant operation and equipment. Prior to the placement of any concrete, the concrete batch plant and the contractor shall be responsible to consult with the local Xypex representative concerning additional procedures for the addition, mixing and to confirm dosage.

Note: For enhanced chemical protection or for meeting specific project requirements or where the concrete mix design contains higher than 25% type F fly ash content or includes a Portland cement/slag cement/type C fly ash blend, consult with manufacturer or its authorized representative to determine appropriate dosage rates
- 9. Fiber Reinforcing Additive (sprayground decks only): Fiber additives shall meet the requirements of ASTM C-116 as a Type II synthetic fiber complying with applicable portions of the ICC-ES AC308 acceptance criteria for synthetic fibers.
 - a. "Euclid Chemical" PSI fiberstrand F, 100% homopolymer fibrillated polypropylene microfiber. Mix rate 1.5 lbs. per cubic foot of concrete
- B. Construction Joints: Use keyform for slab pour joints. Either preformed galvanized or PVC construction joint forms of a standard manufacturer may be used. Install per manufacturer's recommendations and tool edges of slabs.
- C. Waterstops: PVC bulb-type for use between concrete pours / lifts, conforming with ASTM D 570, D 624, and D 638. Provide in configuration(s) as recommended by manufacturer for specific application. Greenstreak, W.R. Meadows, or equal.
- D. Curing Materials:
 - 1. Liquid Membrane (covered slab): Chlorinated rubber membrane forming, curing sealing compound conforming to ASTM C309.
 - 2. Liquid Membrane (exposed slab): Clear methyl and butyl methacrylate non-staining, membrane forming, curing-sealing compound conforming to ASTM C309.

E. Cement Grout and Drypack:

1. Cement Grout: Mix 1 part by volume of Portland Cement, 1/2 part by volume of water and fine aggregate enough to make mixture flow under its' own weight.
2. Drypack: Mix 1 part by volume of Portland Cement, 1/2 part by volume of water and fine aggregate enough to make a stiff mix that will mold into a ball. Mix no more than can be used in 30 minutes.

F. Concrete Pool Deck Penetrating Sealer:

1. Manufacturer: PROSOCO, Inc., 3741 Greenway Circle, Lawrence, KS 66046. Phone: (800) 255-4255; Fax: (785) 830-9797. E-mail: CustomerCare@prosoco.com
2. Typical Technical Data:
 - a. FORM: Clear liquid
 - b. SPECIFIC GRAVITY: 1.04
 - c. pH: not applicable
 - d. WEIGHT/GALLON.: 8.69 pounds
 - e. ACTIVE CONTENT: 11.47 percent
 - f. TOTAL SOLIDS: 9.21 percent ASTM D2369
 - g. FLASH POINT: 63 degrees Fahrenheit (53 degrees Celsius) ASTM D3278
 - h. FREEZE POINT: 38 degrees Fahrenheit (3 degrees Celsius)
 - i. SHELF LIFE: 2 years in tightly sealed, unopened container
 - j. VOC CONTENT: less than 100 grams per Liter
3. Limitations
 - a. Not appropriate for use on limestone, marble, travertine or other calcareous stones. Always test other natural stone to ensure desired results.
 - b. Not suitable for application to synthetic resin paints, gypsum, plaster or other non-masonry surfaces.
 - c. May not be suitable for surfaces receiving paints or coatings. Always test.
 - d. May cause slight darkening on some surfaces.
 - e. May adhere to glass. Contact PROSOCO for removal recommendations.
 - f. Not suitable for protecting surfaces subject to constant water spray.
 - g. Will not compensate for structural or material defects.
 - h. Not recommended for below grade application.
4. Application: Provide two coats per manufacturer's requirements. Before applying, read "Preparation" in the Manufacturer's Product Data Sheet and all safety information in the Manufacturer's Safety Data Sheet for Saltguard® VOC (for projects in California use Saltguard WB). Refer to the Product Data Sheet for additional information about application of Saltguard® VOC. Do not dilute or alter

2.4 JOINT SEALANT MATERIALS

- A. Caulking: Multipart, non-sag gun grade polyurethane-based sealant meeting the requirements of ASTM C920-02, Type S or M, Mamemco International, Pecora, Sika Corp., Sonneborn Building Products, Tremco or approved equal. Self-leveling caulking materials are not allowed.

- B. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- C. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- D. Sealant Backer Rod: Provide compressible polyethylene or polyurethane backer rod as recommended by the sealant manufacturer.
- E. Bond Breaker Tape: Provide polyethylene tape or other plastic tape as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to substrate or joint filler must be avoided for proper performance of sealant.

2.5 OTHER MATERIALS

- A. All other materials, not specifically described but required for proper completion of the work of this Section, shall be as selected by the Contractor subject to the advance review by the Owner.

2.6 BALANCE TANK / SPRAYGROUND DRAINS WATERPROOFING

- A. Provide waterproofing in accordance with Section 13 11 05 of the specifications.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Inspection:
 - 1. Prior to all Work of this Section, carefully inspect the installed Work of other trades and verify that all such Work is complete to the point where this installation may properly commence.
 - 2. Verify that all Work may be constructed in accordance with all applicable codes and regulations, the referenced standards, the original design, and in accordance with site specific Geotechnical Report.
- B. Discrepancies:
 - 1. In the event of discrepancy, immediately notify the Owner.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
 - 3. Failure to notify the Owner and give written notice of discrepancies shall constitute acceptance by the Contractor of existing conditions as fit and proper to receive work.

3.2 CONCRETE FORMWORK

- A. Construction of Forms:
 - 1. General: Construct all required forms to be substantial, sufficiently tight to prevent leakage of concrete paste, and able to withstand excessive deflection when filled with wet concrete.
 - 2. Layout:

- a. Form for all required cast-in-place concrete to the shapes, sizes, lines and dimensions indicated on the Drawings.
 - b. Exercise particular care in the layout of forms to avoid necessity for cutting concrete after placement.
 - c. Make proper provisions for all openings, offsets, recesses, anchorages, blocking and other features of the Work as shown or required.
 - d. Perform all forming required for Work of other trades and do all cutting and repairing of forms required to permit such installation.
 - e. Carefully examine the Drawings and Specifications and consult with other trades as required relative to providing for pipe and conduit penetrations, reglets, chases and other items in the forms.
 3. Imbedded Items: Set all required steel frames, angles, bolts, inserts and other such items required to be anchored in the concrete prior to concrete being placed.
 4. Bracings:
 - a. Properly brace and tie the forms together so as to maintain position and shape and to ensure safety to workmen.
 - b. Construct all bracing, supporting members and centering of ample size and strength to safely carry, without excessive deflection, all dead and live loads to which they may be subjected.
 - c. Properly space the forms apart and securely tie them together, using metal spreader ties that give positive tying and accurate spreading.
 5. Wetting: Keep forms sufficiently wetted to prevent joints from opening up before concrete is placed.
- B. Plywood Forms:
1. Design: Nail the plywood panels directly to studs and apply in a manner to minimize the number of joints.
 2. Joints: Make all panel joints tight butt joints with all edges true and square.
- C. Footing Forms:
1. Wood Forms: All footing forms shall be wood unless otherwise specifically approved by the Owner, or as specified in paragraph 3.2(C)(2).
 2. Earth Forms:
 - a. Side walls for footings may be of earth provided the soil will stand without caving and the sides of the bank are made with a neat cut to the minimum dimensions indicated on the Drawings.
 - b. For excavation and backfill of earth forms, conform with applicable provisions of Section 13 1101, "Sprayground Excavation".
- D. Reuse of Forms:
1. Reuse of forms shall be subject to advance approval of the Owner.

2. Except as specifically approved in advance by the Owner, reuse of forms shall in no way delay or change the schedule for placement of concrete from the schedule obtainable if all forms were new.
3. Except as specifically approved in advance by the Owner, reuse of forms shall in no way impart less structural stability to the forms nor less acceptable appearance to finished concrete.

E. Removal of Forms:

1. General:
 - a. In general, side forms of footings may be removed seven (7) days after placement of concrete, but time may be extended if deemed necessary by the Owner.
 - b. Forms for footings, foundations, grade beams, slabs, walls, and other formed concrete may be removed fourteen (14) days after placement of concrete.
2. Removal:
 - a. Use all means necessary to protect workers, passersby, the installed Work of other trades and the complete safety of the structure.
 - b. Cut nails and tie wires or form ties off flush, and leave all surfaces smooth and clean.
 - c. Remove metal spreader ties on exposed concrete by removing or snapping off inside the wall surface and pointing up and rubbing the resulting pockets to match the surrounding areas.
 - d. Flush all holes resulting from the use of spreader ties and sleeve nuts using water, and then solidly pack throughout the wall thickness with cement grout applied under pressure by means of a grouting gun; grout shall be one part Portland Cement to 2-1/2 parts sand; apply grout immediately after removing forms.

3.3 CONCRETE REINFORCEMENT

A. Bending:

1. General:
 - a. Fabricate all reinforcement in strict accordance with the Drawings.
 - b. Do not use bars with kinks or bends not shown on the Drawings.
 - c. Do not bend or straighten steel in a manner that will injure the material. (When opposite end is already encased in concrete.)
2. Design:
 - a. Bend all bars cold.
 - b. Make bends for stirrups and ties around a pin having a diameter of not less than two (2) times the minimum thickness of the bar.
 - c. Make bends for other bars, including hooks, around a pin having a diameter of not less than six (6) times the minimum thickness of the bar.

B. Placing:

1. General: Before the start of concrete placement, accurately place all concrete reinforcement, positively securing and supporting by concrete blocks, metal chairs or spacers, or by metal hangers.
 2. Clearance:
 - a. Preserve clear space between bars of not less than one and one-half (1-1/2) times the nominal diameter of the round bars.
 - b. In no case let the clear space be less than one and one-half (1-1/2) inches nor less than one and one-third (1-1/3) times the maximum size of the aggregate.
 - c. Provide the following minimum concrete covering of reinforcement:
 - i. Concrete deposited against earth: three (3) inches minimum.
 - ii. Concrete below grade deposited against forms: two (2) inches minimum.
 - iii. Concrete elsewhere: As indicated on Drawings or otherwise approved by the Owner.
 3. Splicing:
 - a. Horizontal Bars:
 - i. Place bars in horizontal members with minimum lap at splices sufficient to develop the strength of the bars.
 - ii. Bars may be wired together at laps except at points of support of the member, at which points preserve clear space described above.
 - iii. Whenever possible, stagger the splices of adjacent bars.
 - iv. Splice sixty (60) bar diameters minimum.
 - b. Wire Fabric: Make all splices in wire fabric at least one and one-half (1-1/2) meshes wide.
 - c. Other Splices: Make only those other splices that are indicated on the Drawings or specifically approved by the Owner.
 4. Dowels: Place all required steel dowels and securely anchor them into position before concrete is placed.
 5. Obstructions: In the event conduits, piping, inserts, sleeves and other items interfere with placing reinforcement as indicated on the Drawings or otherwise required, immediately consult with the Owner and obtain approval of a new procedure prior to placing concrete.
- C. Cleaning Reinforcement: Steel reinforcement, at the time concrete is placed around it, shall be free from rust scale, loose mill scale, oil, paint and all other coatings which will destroy or reduce the bond between steel and concrete. Bend down all the tie wire away from the top of the sprayground deck. Maintain a 2" clear from top of concrete to the tie wire.

3.4 CAST-IN-PLACE CONCRETE

A. Conveying and Placing Concrete:

1. Before placing concrete, mixing and conveying equipment shall be well cleaned, and the forms and space to be occupied by concrete shall be thoroughly cleaned and wetted. Ground water shall be removed until the completion of the work.

2. No concrete shall be placed in any unit of work until all formwork has been completely constructed, all reinforcement has been secured in place, all items to be built into concrete are in place, and form ties at construction joints tightened.
 3. Concrete shall be conveyed from mixer to place of final deposit in such a way to prevent the separation or loss of ingredients. It shall be placed as nearly as practicable in its' final position to avoid rehandling or flowing. Concrete shall not be dropped freely where reinforcing bars will cause segregation, nor shall it be dropped freely more than six (6) feet. Use tremies, spouts and dump boxes in deep sections. Vibrators are not acceptable for facilitating concrete transport.
 4. Concrete shall be tamped and spaded to insure proper compaction into all parts of forms and around reinforcement. A mechanical vibrator shall be used to thoroughly compact the concrete. Vibration must be by direct action in the concrete and not against forms or reinforcement.
 5. Mixing and transport time as indicated in ASTM C94 is required. If air temperatures are between 85° and 90° F the delivery time is to be reduced to 75 minutes. When air temperatures are in excess of 90° F the delivery time should be reduced to 60 minutes.
 6. Truck mixes without batch certificates will be rejected.
- B. Construction Joints / Expansion Joints: Construction joints and expansion joints shall be provided at locations and in the manner shown on the Drawings. With exception of existing concrete / new shotcrete joints, use PVC bulb-type waterstops appropriate for design condition between all concrete pours / lifts to avoid cold joints. Waterstops shall be placed in such a way to protect reinforcing steel from rust and oxidation. All expansion joints must be the full depth of the concrete section in which they are located.
- C. Slab Finishes: Concrete slabs shall be compacted and screeded uniformly to grades shown. Push large aggregates below the surface with a screen tamper, screed and bull float. As soon as the surface becomes workable, it shall be wood floated, then finished as indicated on the Drawings to a uniform smooth, true surface in a neat and workmanlike manner. Carefully coordinate slab finish requirements with other trades (ceramic tile) to insure concrete finish is appropriate substrate for final finish material.
1. Contractor shall provide three mock-up deck samples, minimum 3' x3', with a wedge anchor installed in one sample. These three (3) samples shall be constructed; one (1) with a light broom finish, one (1) with a medium broom finish and one (1) with a heavy broom finish for determination and selection of an appropriate deck finish. Each sample shall be edged on all four sides to demonstrate a $\frac{3}{4}$ " radius edge. Anchor installation shall demonstrate acceptable interface between anchor and the top of deck. Deck samples shall remain on job site through final inspection for reference.
 2. Sprayground Decks: Medium Broom Finish.
- D. Protection and Curing:
1. Concrete shall be protected from injurious action of the elements and defacement of any nature during construction.

2. All forms must be kept wet to prevent drying out of the concrete.
3. All concrete surfaces including footings must be kept wet for at least seven (7) days after concrete is placed.
4. Apply the appropriate curing materials, as specified in 2.3D of this Section, immediately after finishing slabs. Application shall be as specified by the manufacturer.

E. Form Removal:

1. Take care in removing forms so that surfaces are not marred or gouged and that corners are true, sharp and unbroken.
2. No steel spreaders, ties or other metal shall project from or be visible on any concrete surfaces.

F. Defective Work:

1. Should the strength of any concrete for any portion of the work indicated by tests of molded cylinders and core tests fall below minimum 28 days strength specified or indicated, concrete will be deemed defective work and shall be replaced.
2. Concrete work that is not formed as indicated, is not true to intended alignment, not plumb or level where so intended, not true to intended grades or elevations, not true to specified or selected finish, contains sawdust shavings, wood, or embedded debris, which exhibits cracks or contains fine or coarse sulfide particles, or expansive aggregates detrimental to performance or appearance of the concrete shall be deemed defective.
3. Promptly perform work required to replace and properly clean (by sandblasting if necessary) any defective concrete panels (control joint or expansion joint to control joint or expansion joint), at Contractor's expense, including all expense of additional inspection, tests, or supervision made necessary as a result of defective concrete.

3.5 EXPANSION JOINTS

- A. Temperatures: Do not install sealants when air temperature is less than 40°F.
- B. Tooling: Tool exposed joints to a slightly concave surface using slicking materials recommended by the manufacturer. The tooling procedure shall press sealant against the sides of the joint. No materials shall be left "feathered" out or smeared on the abutting materials. Completed joints shall have a uniform professional appearance.
- C. Joint Construction: Sealant joint width, thickness and cross-sectional profile to be constructed in strict accordance with the sealant manufacturer's recommendations.

3.6 CLEAN-UP

- A. Upon completion of the Work of this Section, immediately remove all sprayground concrete materials, debris and rubbish occasioned by this Work to the approval of the Owner.

- END OF SECTION -

ATTACHMENT E

**SECTION 13 1106
SPRAYGROUND EQUIPMENT**

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Sprayground equipment items required for this Work as indicated on the Drawings and specified herein.
- B. Provide start up and operation instructions to the Owner for both the sprayground and mechanical equipment. Properly balance sprayground water chemistry until such time that the Owner takes occupancy of the project.

1.2 QUALITY ASSURANCE

- A. Qualifications of Workers:
 - 1. The entity performing the work for this Section shall have been successfully engaged with a C-53 license as an RME or RMO for at least the past five (5) years immediately prior to the commencement of the work. The Qualified contractor Shall submit documentation of a minimum of two (2) interactive spray ground play equipment and climb-on structure installations completed in the last five (5) years.
 - 2. For actual construction operations, use only trained and experienced workers with a minimum of three (3) years experience with the materials and methods specified.
 - 3. Provide at least one person who shall be present at all times during execution of the work of this Section, with a minimum of five (5) years experience with the type of materials being installed, the referenced standards, and who shall direct all Work performed under this Section.
- B. General Contractor who wishes to self-perform the Sprayground Electrical work requiring a C-53 license, must possess an active and valid C-53 license. A General Contractor self-performing Sprayground Electrical work, may subcontract any portion(s) of the work to any subcontractor possessing the C-53 license. However, a subcontractor may not subcontract any portion of the work to another subcontractor.
- C. All equipment supplied or work performed shall comply with regulations governing public sprayground areas as contained within State and Local Codes.

1.3 SUBMITTALS AND SUBSTITUTIONS

- A. Provide submittals in conformance with the requirements of Section 01 33 00.
- B. Required submittals include:
 - 1. Sprayground Deck and Mechanical Equipment as specified in Article 2.1-2.11 of this Section.
- C. Submit proof of qualifications as specified in Article 1.2.A of this Section.

- D. The equipment shown on the plans represent the first listed items in the technical specifications. The Contractor shall be responsible for all required field coordination and installation of any approved equal product to provide a fully working and warranted system. The Contractor shall submit detailed shop drawings for any products used other than the first listed specified items. Contractor provided shop drawings shall include details and quality equal to the original plans and construction documents. The Contractor shall provide any and all required engineering including but not limited to structural and anchorage requirements for any proposed equipment other than the first listed specified equipment. The Contractor is responsible to provide a factory certified representative(s) to start-up and provide on-site training for all sprayground mechanical equipment provided.

1.4 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect sprayground equipment items before, during and after installation and to protect the installed work specified in other Sections.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative.

PART 2 - PRODUCTS

2.1 DECK EQUIPMENT

- A. Sprayground Safety Signs: As required by the Department of Health. Submittal required. Placement at the sprayground site shall be in conformance with Health Department Inspector. One (1) set minimum per site.
- B. Sprayground Elements: The basis of design for the spray ground elements is Waterplay and 13Crystal Fountains (or equal).

Waterplay Contact: Melinda Pearson, Melinda.Pearson@makrgroup.com

Crystal Fountains Contact: Asmaa Elkorazati, aelkorazati@crystalfountains.com

	Elements	Qty	Total Flow
1.	Geyser Waterplay 0010-7478	4	24 GPM
2.	Monster 5 Waterplay 0010-7480	11	60 GPM
3.	Spray Ring Crystal Fountain NSS600	1	132 GPM
4.	Solo Spurt Waterplay 0010-7481	5	3 GPM
5.	GS Tulip Waterplay 0010-7489	9	42 GPM
6.	Tower Spray Waterplay 0010-7488	2	18 GPM
7.	Starlet Spray	2	10 GPM

	Waterplay 0010-7483		
8.	Misty Mountain Waterplay 0010-7479	1	2 GPM
9.	Spray Tunnel 8 (The Wave) Waterplay 0010-7497	2	48 GPM
10.	Team Effect Waterplay 0010-9816	1	8 GPM
11.	Ground Jet Crystal Fountains NLG202	2	50 GPM
12.	Crown Jet Crystal Fountains WMF076	2	20 GPM
13.	Column Jet Crystal Fountains NLC075	2	20 GPM
14.	2 Ft Diameter Custom Half Circle w/ ten (10) stream jets. Crystal Fountains WMD100	2	100 GPM
15.	Play Phase Post Activator Waterplay 0010-1854	2	
16.	Circulator Drain Waterplay EST-10371	6	
17.	2 t. diameter custom quarter circle w/ five (5) stream jets Crystal Fountains WMD100	1	25 GPM
Note: Sprayground decks shall have non-slip finish and shall slope 2% max. in any direction.			

2.2 SPRAYGROUND CIRCULATION PUMP

- A. 'Pentair' Whisperflo XFVS #022035 5HP, 1PH pump; 240V, 5HP with integral variable frequency drive and strainer; self-priming pump, 3450 RPM rated at 200 GPM at 60 ft. TDH. One (1) total. (95 lbs.) Interlock booster pump with circulation pump to only allow booster pumps to operate if circulation pump is on. Provide pump with two (2) strainer baskets.

2.3 SPRAYGROUND BOOSTER PUMP – ZONE 1 & 2

- A. 'Pentair' Whisperflo XFVS #022035 5HP, 1PH pump; 240V, 5HP with integral variable frequency drive and strainer; self-priming pump, 3450 RPM rated at 200 GPM at 60 ft. TDH. One (1) total. (95 lbs.) Interlock booster pump with circulation pump to only allow booster pumps to operate if circulation pump is on. Provide pump with two (2) strainer baskets.

2.4 SPRAYGROUND BOOSTER PUMP – ZONE 3

- B. 'Pentair' EQ EQK-750 #34033, 3 PH pump, 230V, 7.5 HP with Pentair 'Accudrive AD075X-2301-N4X 7.5 HP variable frequency drive, self priming pump, 3520 RPM rated at 450 GPM at 50 ft. TDH, with integral strainer. One (1) total. (201 lbs.) Interlock booster pump with circulation pump to only allow booster pumps to operate if circulation pump is on. Provide pump with two (2) strainer baskets.

2.5 SPRAYGROUND FILTER

- A. 'Pentair' Triton TR-140C3 hi rate permanent media filters with 14.04 sq. ft. of filter area rated at 210 GPM at 15 GPM/sq. ft. Complete with 3" flanges and tandem filter piping manifold kit, 4" backwash, seismic anchorage. Provide all utilities, piping, valving, etc. Two (2) tanks total. (1007 lbs. each)

2.6 SPRAYGROUND ULTRAVIOLET SYSTEM

- A. 'Evoqua' #WF-115-3-N, 1x1.5 kw with 20A breaker, rated at 242 GPM @ 40mJ/cm², 208V 1PH, complete with strainer, valving and control panel. One (1) system complete.

2.7 SPRAYGROUND ULTRAVIOLET SYSTEM

- B. 'Evoqua' #WF-125-6-N, 1x1.5 kw with 20A breaker, rated at 660 GPM @ 40mJ/cm², 208V 1PH, complete with strainer, valving and control panel. One (1) system complete.

2.8 ACID STORAGE/FEED SYSTEM

- A. Provide Chemtainer 55 gallon TC20381A vertical bulk storage tank with lid seismically restrained; operating weight = 458 lbs. Complies with Fed. Reg. 40CFR-264-193. Feed pump shall be Blue/White AIN20X-4T 8 GPD @ 15 PSI with FRP brackets. Hard Pipe to point of injection. One (1) total.

2.9 CHLORINE STORAGE/FEED SYSTEM

- A. Provide Chem-Tainer 150-gallon TC43498DC dual storage containment tank with lid seismically restrained; operating weight = 1250 lbs. Complies with Fed. Reg. #40CFR-264-193. Feed pump shall be Blue and White AIN20X-4T 8 GPD at 15 PSI with FRP shelf brackets. Hard pipe to point of injection. One (1) pump total.

2.10 WATER CHEMISTRY CONTROLLER

- A. Provide one (1) BecSysRCM communication module and dedicated ethernet line for one (1) BecSys7-XSIGP1X0LLBX to be provided with water level control. Provide with Signet 51530-PX flosensor with digital readout. Installed per manufacturer's recommendation. One (1) total. Contractor to connect controller to new network connection and coordinate IP signature with City Representative.

2.11 EYEWASH/SHOWER

- A. 'Haws' model #8300-8309CRP barrier free combination shower and eye/face wash with corrosion resistant protection. See MEP Sheets for supply piping. Two (2) total.

2.12 6" SPRAYGROUND MANIFOLD

- A. 'Water Play' 6" manifold including automation controller, wall mounted water distribution manifolds with thirty (30) 1" and 1 ½" outlets, solenoid valves, true union ball valves, proportional valves, one (1) 3" pressure sustaining bypass valve, time clock operated

activation, complete for a fully functioning system. Provide winter drain points adjacent to manifold equipment area for all manifolds lines. Two (2) manifolds total.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Inspection:

1. Prior to installing the items of this Section, carefully inspect the installed Work of other trades and verify that all such Work is complete to the point where this installation may properly commence.
2. Verify that the sprayground equipment items may be installed in strict accordance with original design, pertinent codes and regulations, and the manufacturers' recommendations.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the Owner.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies are fully resolved.
3. Failure to notify the Owner and give written notice of discrepancies shall constitute acceptance by the Installer of existing conditions as fit and proper to receive its Work.

3.2 INSTALLATION

- A. Supply and install items of sprayground equipment in strict accordance with applicable codes and regulations, the original design, and the manufacturer's published recommendations, anchoring firmly and securely for long life under hard use.
- B. Coordinate with other trades to insure all imbedded items are set plumb and flush. Railing ends must have anchor sockets and escutcheon plates. Be certain that deck equipment and railings are properly bonded prior to imbedding.
- C. All mechanical equipment shall be braced and/or anchored to resist horizontal force acting in any direction using the criteria shown on the Drawings.

3.3 EQUIPMENT ACTIVATION

A. Start Up:

1. Retain a qualified chemistry consultant, familiar with the operation and maintenance of aquatic facilities, to supervise and properly balance the sprayground water chemistry.
2. Demonstrate to the Owner's Representative and to all appropriate officials (including State of California) that all systems are fully operational and that calcium hardness, total alkalinity, chlorine residual and pH levels are within the specified limits.
3. Standards: Contractor shall furnish labor and chemicals as required to condition the water properly to the following specifications:
 - a. Calcium Hardness: 150-300 ppm

- b. Total Alkalinity: 100-125 ppm
- c. Chlorine residual: 2.0-5.0 ppm
- d. pH 7.4-7.6

- B. All water chemistry and filtration mechanical equipment shall be operational upon filling of the balance tank. Chemicals and other related support items as supplied by the Contractor, shall be in supply at start-up.
- C. Start up and provide qualified personnel to operate the sprayground mechanical equipment for a period not less than fourteen (14) days after the sprayground systems are placed in operation, or until the Owner takes occupancy of the facility or letter of substantial completion. During this time, Contractor shall instruct and supervise the Owner's personnel in the various operating and maintenance techniques involved. Contractor shall insure that the sprayground filtration equipment is continuously running during the initial fourteen (14) day period. Contractor shall be responsible for supply of chemicals during this not less than fourteen (14) day period and at the time of turnover to Owner, chemical storage tanks shall be full. Owner's personnel shall be fully trained and capable of assuming sprayground maintenance tasks; training may begin prior to Owner taking occupancy.

3.4 CLEAN-UP

- A. Upon completion of sprayground equipment, remove all debris, materials and equipment occasioned by this Work to the approval of the Owner.

- END OF SECTION -

ATTACHMENT F

**SECTION 13 1107
SPRAYGROUND MECHANICAL**

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Sprayground mechanical piping as indicated on the Drawings for circulation and filtration systems, chemical control systems, booster pump systems and appurtenances.
- B. Domestic water system from points of connection within sprayground mechanical equipment room to make-up water system.
- C. Filter backwash piping to point of connection with backwash receptor as required.

1.2 QUALITY ASSURANCE

A. Qualifications of Workers:

- 1. The entity performing the work for this Section shall have been successfully engaged with a C-53 license as an RME or RMO for at least the past five (5) years immediately prior to the commencement of the work. The Qualified contractor Shall submit documentation of a minimum of two (2) interactive spray ground play equipment and climb-on structure installations completed in the last five (5) years.
- 2. For actual construction operations, use only trained and experienced workers with a minimum of three (3) years experience with the materials and methods specified.
- 3. Provide at least one person who shall be present at all times during execution of the work of this Section, with a minimum of five (5) years experience with the type of materials being installed, the referenced standards, and who shall direct all Work performed under this Section.
- 4. General Contractor who wishes to self-perform the Sprayground Mechanical work requiring a C-53 license, must possess an active and valid C-53 license. A General Contractor self-performing Sprayground Mechanical work, may subcontract any portion(s) of the work to any subcontractor possessing the C-53 license. However, a subcontractor may not subcontract any portion of the work to another subcontractor.

B. Standards:

- 1. All equipment supplied or work performed shall comply with California Building Code, 2022 edition.
- 2. Work shall be performed in accordance with the applicable editions of all National, State and local codes, laws, regulations and ordinances, including the following:
 - a. American National Standards Institute (ANSI).
 - b. American Society for Testing Materials (ASTM).
 - c. American Waterworks Association (AWWA).

- d. American Welding Society (AWS).
- 3. Do not construe anything in the Drawings or Specifications to permit Work not conforming to these requirements.

1.3 SUBMITTALS AND SUBSTITUTIONS

- A. Provide submittals in conformance with the requirements of Section 01 3300.
- B. Required submittals include:
 - 1. Pipe and Fittings as specified in Article 2.2 of this Section.
 - 2. Valves as specified in Article 2.3 of this Section.
 - 3. Pressure / Vacuum Gauges as specified in Article 2.4 of this Section.
 - 4. Pipe Hangers and Supports as specified in Article 2.5 of this Section.
 - 5. Sleeves and Waterstops as specified in Article 2.6 of this Section.
 - 6. Submit proof of qualifications as specified in Article 1.2.A of this Section.

1.4 PRODUCT HANDLING

- A. Delivery: Deliver all materials to the Project Site in the manufacturer's original unopened containers with all labels intact and legible.
- B. Storage: Store all materials under cover in a manner to prevent damage and contamination, and store only the specified materials at the Project site.
- C. Protection: Use all means necessary to protect sprayground mechanical items before, during and after installation and to protect the installed Work specified in other Sections.
- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative and at no additional cost to the Owner.

1.5 JOB CONDITIONS

- A. Cooperate with entities performing Work specified in other Sections to so that no conflict of new construction or occupied space may occur. Should any installation Work be done without such craft coordination, that Work so installed shall be removed and re-installed.

PART 2 - PRODUCTS

2.1 PRODUCT QUALITY

- A. Materials and equipment shall be new, of the best quality for the purpose intended, and shall be clearly marked with the manufacturer's name and nameplate data or stamp and rating. As far as practicable, materials and equipment shall be of one manufacturer.

2.2 PIPE AND FITTINGS

- A. PVC Schedule 40: Type 1, normal impact, NSF approved for solvent welding applications, ASTM Specification D-1785, color shall be white. Dura, Lasco, or equal.
- B. PVC Schedule 80: Type 1, normal impact, NSF approved for solvent welding applications, ASTM Specification D-1785, color shall be gray. Dura, Lasco, or equal.
- C. PVC SDR35: Conforming to ATSM D-1784, use with epoxy coated bell and spigot-type fittings or epoxy coated mechanical joint by flange adapters with epoxy coated cast iron fittings as specified in Article 2.2 (F), below. Johns-Manville "Big Blue", Diamond Plastics, or equal.
- D. CPVC Schedule 80 Influent/Effluent Heater Piping: Type 1, normal impact, NSF approved for solvent welding applications, ASTM Specification D-1785, color shall be gray. Dura or Lasco.
- E. Copper Tubing: ASTM Specification B-88, hard drawn, with ANSI Standard B16.22 wrought copper fittings.
- F. Steel: ASTM Specification A-120, Schedule 40 black or galvanized pipe with ASTM A-47 150 lb. banded malleable iron threaded fittings.
- G. Cast Iron: ASTM Specification B16.1, cast iron flanged fittings, provide epoxy coating as required for use with chlorinated water.

2.3 VALVES

- A. Ball Valves:
 - 1. For sprayground system: True-Union design, PTFE seat material with FPM or FKM Double O-ring stem seals, locking handle, NSF certified. PVC schedule 80 body for below grade installation. CPVC Schedule 80 body for above grade installation. Furnish ball valves on all pip diameters 2 ½" or less with a rating of at least 200psi at 73° F, Asahi Pool-Pro, Nibco, or Ipex.
 - 2. For copper pipe system: 3-piece full-port Bronze body valve with Teflon seat, 'Apollo', 'Nibco' or equal.
- B. Butterfly Valves:
 - 1. Epoxy coated cast or ductile iron body, 316 stainless steel disc and stem, viton seat material, furnish hand wheel/gear operators on all valves 8" and larger. DeZurick, Keystone, or Asahi Pool Pro, or Ipex.
 - 2. PVC body, PVC disc and EPDM construction suitable for chlorinated water applications. Stem shall be of 316 stainless steel and non-wetted. Valves shall be self-

gasketed design with a convex sealing arrangement. Valves 1-1/2" – 10" shall be rated to 150 psi and 12" valves shall be rated to 100 psi at 70°F. Asahi Pool-Pro, no known equal.

- C. Check Valves: Wafer-type, epoxy coated cast or ductile iron body, 316 stainless steel plates and shaft, viton seat material. Centerline, Metraflex, or equal.
- D. RP Backflow Preventer: Febco #835-B for 2" and smaller; #825 for 2-1/2" and larger. Febco, Watts, or equal.
 - 1. Discharge port must be kept clear of obstructions at all times.
 - 2. Backflow assembly must be "Y" pattern for devices 2" or smaller.
 - 3. 2" or smaller shall use brass C x MIP 90.
 - 4. All bolts connecting to water line shall be 304 stainless steel.
- E. Make-up Water Control: Provide 2" 'Cla-val' fill system including 'Cla-val' solenoid control valve #136-01BY, 2" ductile iron epoxy coated body with cast iron disc retainer and diaphragm washer with bronze trim, flanged globe pattern, 120V at 60 HZ. Solenoid wiring shall be wired to water chemistry controller. Provide 6" air gap at fill point. One (1) system total.

2.4 PRESSURE / VACUUM GAUGES

- A. Furnish and install pressure and vacuum gauges on the discharge and suction sides of all pumps. 2" or 2-1/2" dial, bottom connection, chrome ring and shut-off cock and snubber. Ranges shall be selected to indicate between mid-point and two-thirds of maximum range under design conditions. Marsh, Terice, or equal.

2.5 PIPE HANGERS AND SUPPORTS

- A. General:
 - 1. The requirements of this Section relates to various requirements of the Agreement, General and Supplementary Conditions, Specifications, Drawings, and modifying documents which are part of the Construction Contract. Responsibility for coordination of all such applicable requirements will be that of the Contractor.
- B. Description:
 - 1. This section provides guidelines and limitations for the support of all mechanical, electrical, plumbing or architectural items from the building structure, and for the seismic bracing of such items.
 - 2. Design and install all support and bracing systems as required for the sprayground systems. Provide for attachment to portions of the building structure capable of

bearing the loads imposed. Design these systems to not overstress the building structure.

C. Quality Assurance:

1. Design and install all support systems to comply with the requirements of the California Building Code, 2022 edition.
2. Seismic bracing is to be designed by a professional engineer licensed in the State of California.
3. For the seismic bracing of mechanical, electrical and plumbing system, refer to "Guidelines for Seismic Restraints of Mechanical Systems and Plumbing Piping Systems" by Sheet Metal and Air conditioning Contractors National Association, Inc., (SMACNA) for guidelines.

D. Submittals:

1. Submit shop drawings for all substructures and attachment methods.
2. Submit proposed alternative methods of attachment for review and approval by the Architects, prior to deviating from the requirements given below.
3. For all pipe hangers and support systems, submit structural calculations and details which include all resultant forces applied to the building structure and are prepared and signed by the Contractor's licensed California professional engineer. Calculations will be reviewed for compliance with design criteria, not for arithmetic.

E. Materials:

1. Use Kin-Line, Grinnel, or approved equal.
2. Support all pipelines individually with hangers, each branch having at least one hanger. Lateral brace as noted and required.
3. Support piping near floor with steel stanchions welded to end plates secured to pipe and floor.
4. Support vertical piping at each floor level. Install coupling in piping at each support. Coupling shall rest on and transmit load to support. Isolate copper from steel supports with vinyl electrician's tape around pipe and coupling.
5. Use Stoneman "Trisolator," Unistrut, or approved equal, isolators at each hanger and other support points on bare copper tubing system.
6. For PVC pipe, space hangers four (4) feet apart for pipe sizes 1" and under, five (5) feet apart for pipe sizes 1-1/4" to 2", and six (6) feet apart for pipe sizes over 2". Space hangers for horizontal pipes at a maximum of six (6) feet for copper 2" and smaller and for steel 1-1/4" and smaller; ten (10) feet for copper 2-1/2" and larger and for steel 1-1/2" and larger.
7. Size hanger rods, screws, bolts, nuts, etc., according to manufacturer's sizing charts.
8. Trapeze hangers may be used for parallel lines.

9. Use galvanized or cadmium plated hangers, attachments, rods, nuts, bolts, and other accessories in sprayground mechanical room, high humidity areas, or where exposed to weather. Hot dip galvanize all items which are not factory furnished. Plating for hinged movements must be done at the factory.
10. Lateral Bracing: To prevent swaying of the piping systems, provide angle iron bracing and anchor into wall or overhead framing. Piping shall be braced or anchored in such a way as to resist a horizontal force of 50% of its operating weight in any direction.
11. Do not use wire or other makeshift devices for hangers.
12. Furnish all substructures and fasteners required to comply with the limitations given below. Use material as specified in the various sections and as appropriate to their use.

F. Guidelines & Limitations:

1. Each Contractor will coordinate the load requirements from all subcontractors so that no combination of loads overstresses the building structure or exceed the limitations given below.
2. Concrete Structure:
 - a. Support all loads hung from concrete structure with cast-in-place inserts, unless drilled-in anchors are specifically approved in writing prior to placing the concrete.
 - b. Concrete anchors must not penetrate into reinforcing bars. Where the anchors boring indicates the presence of reinforcing bar, patch hole with an epoxy type grout and relocate anchor 12 diameters away.
 - c. Individual expansion anchors cannot support any loads greater than 300 pounds or manufacturer's specified load capacity without approval.
3. Steel Structure:
 - a. Hang no more than 20 pounds per metal deck rib in any span.
 - b. At beams, hang all beam loads greater than 40 pounds concentric to beam, not off the flanges.
 - c. Attached no loads to the beams or girders greater than the following without specific approval from the architect.
 - 1) Roof beams and girders: 300-pound point load or 600-pound total load for a single span.

G. Seismic Bracing:

1. Design and install seismic bracing to not ground out vibration and sound isolation systems.
2. All items of mechanical and electrical equipment 60" or more in height are to be seismically braced whether such bracing is shown or not.

2.6 SLEEVES AND WATERSTOPS

- A. Provide sleeves where work of this Section passes through fire rated partitions, floors and ceilings, concrete slabs or exterior of structure. Caulk clearance space using sealant appropriate for application in conformance with manufacturer's recommendations and California Code of Regulations. 3m, Dow Corning, or equal. In lieu of sleeves and caulking, "Link Seal" products may be used.
- B. Provide prefabricated waterstops as indicated on the Drawings at all pipe penetrations through structures containing stored water (i.e., sprayground, balance tanks, etc.) to insure leak-proof seals.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Inspection:
 - 1. Prior to Work of this Section, carefully inspect the installed Work of other trades and verify that such work is complete to the point where this installation may properly commence.
 - 2. Verify that items of this Section may be installed in accordance with the original design and referenced standards.
- B. Discrepancies:
 - 1. In the event of discrepancy, immediately notify the Owner.
 - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
 - 3. Failure to notify the Owner and give written notice of discrepancies shall constitute acceptance by the Contractor of existing conditions as fit and proper to receive his work.

3.2 ABBREVIATIONS AND SYMBOLS

- A. Abbreviations and symbols on the Drawings are those most commonly used. Obtain clarification from the Owner on any questionable items before bid.

3.3 GENERAL PIPING REQUIREMENTS

- A. Size any section of pipe for which size is not indicated or any intermediate section erroneously shown undersized the same size as the largest pipe connecting to it. Sizes listed are nominal.

- B. Cut pipe accurately to job measurements and install without springing or forcing, true to line and grade, generally square with building and/or structures and adequately supported to prevent undue stress on pipe, fittings and accessories.
- C. Make changes of direction with manufactured fittings. Street ells, bushings, reducing flanges, close nipples or bending of pipe is not allowed.
- D. Use great care to install piping in accordance with best practice. Plastic pipe shall be "snaked" in trenches to allow for thermal expansion.
- E. All above grade, below grade and buried or imbedded PVC shall be installed using solvent weld fittings. Also, each and every fitting and pipe end shall be prepared with solvent primer. Fittings shall be joined individually and with enough time between assembly of adjacent joints to allow them to seal solidly. After joining, an even ring of primer must be visible around the entire fitting. If any fittings are installed without visible primer, the fitting shall be removed and discarded and piping recut, rechamfered, and joint made up again using a new fitting. All procedures, methods and techniques used to make up solvent weld joints shall be in strict accordance with manufacturer's recommendations.
- F. Arrange pipe and hangers to allow for expansion, contraction and structural settlement. No pipe shall contact structure except penetrations as shown on the Drawings.
- G. Provide dielectric connections between copper and dissimilar metals. In copper systems, threaded piping including connections to equipment shall be brass pipe and fittings. Install dielectric connections in vertical sections of piping only.
- H. Run pipe full size through shut-off valves, balancing valves, etc. Change pipe size within three (3) pipe diameters of final connection to control valves, fixtures and other equipment.
- I. Provide unions or flanges at connections to equipment, on service side of valves and elsewhere as required to facilitate ease of maintenance.
- J. Locate equipment shut-off valves as close to equipment as possible maintaining easy valve access.
- K. Make all connections between domestic water systems and equipment or face piping with approved backflow prevention devices as required.
- L. All PVC pipe exposed to direct sunlight shall be painted with two coats of Exterior Acrylic Semi-Gloss Paint, Sherwin Williams or equal. Color to be selected by the Architect. Prior to painting the PVC pipes, the exterior of all PVC pipes shall be wiped with Methyl Ethyl Ketone, or an approved equal, to remove the glaze from the pipes.

3.4 TRENCH EXCAVATION AND BACKFILL

- A. Excavate and backfill trenches as required for the Work of this Section. Conform with all applicable codes.
- B. The Contractor shall perform all excavation of every description and of whatever materials encountered, to the depths indicated on the Drawings or as necessary. The Contractor shall dispose of the excavated materials not required or suitable for backfill as directed and shall perform such grading as may be necessary to prevent surface water from flowing into the trenches. The Contractor shall provide adequate equipment for the removal of storm or subsurface waters which may accumulate in the excavated areas.
- C. Trenching:
 - 1. Excavate trenches to lines and grades as indicated on the Drawings and with banks as nearly vertical as practicable.
 - 2. Bottoms of trenches shall be accurately graded to provide uniform bearing on undisturbed soil for the entire length of each section of pipe.
 - 3. The width of the trench at and below the top of the pipe shall be such that the clear space between the barrel of the pipe and the trench wall shall not exceed 8" on either side of the pipe. The width of trench above the top of pipe may be wider if necessary.
 - 4. Over-depth excavations shall be filled with tamped sand to required grades.
 - 5. Excavations of five (5) feet or more in depth shall be shored or supported in conformance with rules, and regulations of State and Federal Governments. Shoring shall be constructed, maintained and removed in a manner to prevent caving of the excavation walls or other load on the pipe.
- D. Backfilling:
 - 1. Material for backfilling of pipes shall be approved granular material less than two (2) inches in diameter obtained from the excavation, sand or an approved import fill. No material of a perishable, spongy or otherwise unsuitable nature shall be used as backfill.
 - 2. Backfilling of pipe trenches shall commence immediately after installation and testing to preclude damage to the installed pipe. Backfill around pipe shall be carefully placed so as not to displace or damage the pipe and shall be carried up symmetrically on each side of the pipe to one foot above the top of the pipe. The material shall be carefully compacted or consolidated before additional backfill is placed.
 - 3. Backfill above an elevation of one foot above the top of pipe in conformance with requirements of Section 13 1101, "Sprayground Excavation". Material for balance of backfill shall be approved granular material less than six (6) inches in diameter taken from the excavation.
 - 4. Unless otherwise indicated on the Drawings, all pipe shall have a minimum of eighteen (18) inches of cover.

3.5 GENERAL EQUIPMENT REQUIREMENTS

- A. Position equipment to result in good appearance and easy access to all components for maintenance and repairs.
- B. Install piping, flues, breeching and ducts so that they do not interfere with equipment access.
- C. Install level, secure and out of moisture. Provide shims, anchors, support straps, angles, grouted bases, or other items as required to accomplish proper installation.
- D. All screws, nuts, bolts and washers shall be galvanized, cadmium plated or stainless steel. After fabrication, hot-dip galvanize unfinished ferrous items for outdoor, below grade or other use subject to moisture.
- E. Extend 1/2" Schedule 40 black steel pipe lubrication tubes from all hard-to-reach locations to front of equipment or to access points. Terminate with proper type of lubrication fitting.

3.6 VALVES AND STRAINERS

- A. If no shut-off is indicated, provide ball valves at inlet connections and balance valves at outlet connections to fixtures and equipment. Provide proper valve trim for service intended.
- B. Use no solder end valves unless noted otherwise; provide adapters in copper tubing systems.
- C. Locate valves with stems above horizontal plane of pipe. In general, locate valves within six (6) feet of floor, out from under equipment, in accessible locations with adequate clearance around hand wheels or levers for easy operation.
- D. Provide all valves, cocks and strainers, full pipe size unless indicated otherwise.
- E. Provide hand wheel operators on all valves 6" and larger, under 6" lever operators may be used.
- F. Provide tool operated valve with stainless steel shaft extension and 'on deck' tool operation for surge chamber butterfly isolation valve.

3.7 IDENTIFICATION OF PIPING

- A. Identify each valve by a numbered brass tag with hole and brass chain mounted on valve stem or handle. Tag to be a minimum of 1" in diameter and numbers at least 1/4" high stamped into tag. Valves and plumbing lines shall be labeled clearly with the source or destination descriptions.

- B. Install an identification chart in a plastic or glass framed enclosure which schematically illustrates the proper operation of all piping systems and indicates number and location of all valves and control devices within the system.
- C. The direction of flow for the recirculation equipment shall be labeled clearly with directional symbols such as arrows on all piping in the equipment area.

3.8 TESTS

- A. Perform tests in presence of Owner with no pressure loss or noticeable leaks.
- B. Do not include valves and equipment in tests. Include connection to previously tested sections if systems are tested in sections.
- C. Perform tests as follows:

System	Test Pressure	Test Medium	Duration
Skimmer Lines and Lawson Main Drains Sump Lines	20 psig	Water*	4 hours
Sprayground Piping	50 psig	Water*	4 hours
Sprayground Piping	50 psig	Water*	4 hours
Sprayground Main Drains	30 psig	Water*	4 hours
Domestic Water	150 psig	Water*	4 hours

*Never test PVC pipe or fittings with air or other gases, always use water.

3.9 PIPE MATERIAL APPLICATION

- A. PVC Schedule 40: Below grade sprayground piping and domestic water piping up to 12" line size; use standard solvent weld fittings.
- B. PVC Schedule 80: Above grade sprayground piping up to 12" line size; use solvent weld Schedule 80 or epoxy coated cast iron fittings.
- C. Type L Hard Copper: Above grade domestic water piping.

3.10 CUTTING AND DRILLING

- A. Cutting or drilling necessary for installation of Work of this Section shall be done only with approval of the Owner.

3.11 CLOSING-IN OF UNINSPECTED WORK

- A. Do not cover or enclose Work before testing and inspection. Re-open Work prematurely closed and restore all Work damaged.

3.12 QUIETNESS

- A. Quietness is a requirement. Eliminate noise, other than that caused by specified equipment operating at optimum conditions, as directed by the Owner.

3.13 FLUSHING OF LINES

- A. Flush or blow out pipes free from foreign substances before installing valves, stops or making final connections. Clean piping systems of dirt and dust prior to initial start-up.
- B. The sprayground mechanical system shall be flushed using the sprayground circulation pump. Circulate water through the mechanical system until the effluent water from the sprayground heads runs clean.

3.14 CLEAN-UP

- A. After all Work has been tested and approved, the Sprayground Contractor shall thoroughly clean all parts of the equipment installations, including all sprayground pipe and fittings in the sprayground mechanical room. Exposed parts shall be cleaned of cement, plaster and other materials and all grease and oil spots removed with solvent.
- B. The Sprayground Contractor shall remove debris from the Project site. Cartons, boxes, packing crates and excess materials not used, occasioned by this work shall be disposed of to the satisfaction of the Owner.
- C. If the above requirements of clean-up are not performed to the satisfaction of the Owner, the Owner reserves the right to order the work done, the cost of which shall be borne by the Sprayground Contractor.

- END OF SECTION -

ATTACHMENT G

SECTION 13 34 00
FABRICATED ENGINEERED STRUCTURES

PART 1 - GENERAL

1.01 SUMMARY

- A. The basis of design is Poligon, Inc. metal shelter
- B. Each of the pre-engineered Site Shelter packages shall be shipped as a pre-cut and pre-fabricated package that shall include the structural frame members, roof panels, fasteners, and installation instructions. The structures shall be shipped knocked down for minimum shipping charges. No on-site welding will be required or shall be allowed.
- C. The items covered in this Specification include the following:
 - 1. Custom Poligon 12x10 **Shower Shelter**
 - 2. Custom Poligon 24x24 **Equipment Storage Shelter**
- D. Section Includes:

Under this item, the Contractor shall furnish all labor, materials, equipment and perform all operations necessary for the completion of the work as shown on the drawings. This includes all excavation, concrete footings, backfill, hardware, fittings, and accessories, in accordance with the drawings, specifications and directions of the Owner's Representative.
- E. Related Sections:
 - 1. Section 31 22 00, Grading
 - 2. Section 31 23 02, Excavating and Fill for Utilities
 - 3. Section 32 13 13, Site Concrete Work

1.02 SYSTEM DESCRIPTION

- A. **Shower Shelter** is a 12x10 Mono Slope with over Multi-Rib Roof.
- B. ROOF SLOPE: 1:12.
- C. Minimum Clearance Height (MCH): 10 in ft. Minimum clearance height under the structure indicates the lowest height of a member from finish grade for clearance under the structure. This is generally the clearance under roof eave or frame, whichever is lower.
- D. **Equipment Storage Shelter** (for Splash Pad) is a 24x24 Square with over Multi-Rib Roof.
- E. ROOF SLOPE: 6
- F. Minimum Clearance Height (MCH): 7.5 in ft. Minimum clearance height under the structure indicates the lowest height of a member from finish grade for clearance under the structure. This is generally the clearance under roof eave or frame, whichever is lower.

1.03 REFERENCE STANDARDS:

- A. AISC - American Institute of Steel Construction Manual of Steel Construction.

- B. ASTM - American Society for Testing and Materials.
- C. AWS - American Welding Society.
- D. LEED - Leadership in Energy and Environmental Design.
- E. OSHA – Occupational Safety and Health Administration Steel Erection Standard 29 CFR 1926 Subpart R-Steel Erection.
- F. PCI - Powder Coating Institute.
- G. SSPC – The Society for Protective Coatings.
- H. Architecturally Exposed Structural Steel (AESS) - as defined by AISC

1.04 SUBMITTALS

- A. The Contractor is responsible for submitting a complete set of engineered drawings and structural calculations for review and approval by Los Angeles County Building and Safety under a separate permit.
- B. GENERAL SUBMITTAL: Submit three sets of engineered drawings and three sets of engineered calculations, both signed and sealed by a Professional Engineer licensed in the State of California.
- C. PRODUCT DESIGN REQUIREMENTS: The building shall meet the following design requirements as shown on the drawings:
 - 1. Building Code: See drawings.
 - 2. Ground Snow Load (Pg): See drawings.
 - 3. Basic Wind Speed (V): See drawings.
 - 4. Seismic Design: See drawings.
- D. FOUNDATION DESIGN:
 - 1. The shelter shall be set on foundations designed by manufacturer.
 - 2. Foundation materials shall be provided by contractor.
 - 3. Owner shall provide manufacturer with complete information about the site including soil bearing capacity and lateral load capacity.
 - 4. If soil data are not provided, foundations will be designed to the minimum values identified in the governing building code.
- E. ANCHOR BOLTS:
 - 1. Anchor bolts shall be provided by Poligon.
 - 2. Hooked anchors are not permitted per AISC requirements.
- F. LEED SUBMITTALS:
 - 1. LEED MR Credit 4.0: Material and Resources, Recycled Content.

1.05 QUALITY ASSURANCE:

- A. MANUFACTURER QUALIFICATIONS:
 - 1. Minimum of five (5) years in the shelter construction industry.
 - 2. Full time on-staff Licensed Engineer.
 - 3. Full time on-staff Quality Assurance Manager.
 - 4. All welders AWS Certified.

5. Manufacturer owned and controlled finishing system to include shot blast, pretreatment, primer, and top coat.
- B. MANUFACTURER'S CERTIFICATONS:
1. AISC Certified Building Fabricator, (American Institute of Steel Construction) Certified Building Fabricator is an AISC Quality Management Systems (QMS) Certification which sets the quality standard for the structural steel industry.
 2. PCI 4000 S Certified, Certification thru Powder Coating Institute for original equipment manufacturers (OEMs) to evaluate process on entire finish system to add powder coat over steel.
 3. City of Los Angeles, CA approved Fabricator Type I Steel.

1.06 WARRANTY

- A. Shelter must have a (10) year limited warranty on steel frame members.
- B. Shelter must have a (10) year limited warranty on paint system.
- C. Pass through warranty of Metal Roof manufacturer shall be provided upon request.

PART 2 - PRODUCTS

2.01 MANUFACTURERS:

- A. Acceptable Manufacturer: Poligon, a Product of Porter Corp, 4240 N 136th Ave., Holland, MI 49424; 616.399.1963; E- mail: info@poligon.com; www.poligon.com.
- B. Contact Poligon Representative for pricing.
Miracle Playground
Rob Fryhoff at (800) 264-7225.
email: rfryhoff@miracleplayground.com
- C. The product shall be designed, produced, and finished at a facility operated and directly supervised by the supplier who has a minimum of (10) years in the business of making pre-manufactured shelters.
- D. Manufacturer must be an AISC Certified Building Fabricator.

2.02 SUBSTITUTION LIMITATIONS:

- A. Substitutions for cause: Will only be considered when circumstances, outside of the contractor's control, will create a substantial delay in the completion of the project. Approval of substitution requests is at the discretion of the architect, owner, and/or their designated consultants. Architect will only consider contractor's request for substitution when the following conditions are satisfied:
 1. Requested substitution meets or exceeds requirements as per the Contract Documents and will produce indicated results
 2. Requested substitution provides equal design characteristics that specified product provides

3. Substitution request is fully documented and properly submitted.

2.03 PRODUCT REQUIREMENTS AND MATERIALS:

- A. GENERAL: The pre-engineered package shall be pre-cut unless otherwise noted and pre-fabricated which will include all parts necessary to field construct the shelter. The shelter shall be shipped knocked down to minimize shipping expenses. Field labor will be kept to a minimum by pre-manufactured parts. On-site welding is not necessary.
- B. REINFORCED CONCRETE: Concrete shall have minimum 28-day compressive strength of 3,000 psi and slump of 4" (+/- 1"), unless otherwise noted on the drawings. Reinforcing shall be ASTM A615, grade 60.
- C. STEEL COLUMNS: Hollow structural steel tube minimum ASTM A500 grade B with a minimum wall thickness of 3/16". Unless columns are direct buried, columns shall be anchored directly to concrete foundation with a minimum of four anchor rods to meet OSHA requirement 1926.755(a)(1).
- D. STRUCTURAL FRAMING: Hollow Structural Steel tube minimum ASTM500 grade B. "I" beams, tapered columns, or open channels shall not be accepted for primary beams. Frame will have a STANDARD POLI-5000 finish. Color chosen from manufacturer's standard color chart; textured colors not available:
- E. COMPRESSION MEMBERS: Compression rings of structural channel or welded plate minimum ASTM A36 or compression tubes or structural steel tube minimum ASTM A500 grade B shall only be used.
- F. CONNECTION REQUIREMENTS:
 1. Anchor bolts shall be ASTM F1554 (Grade 36) unless otherwise noted.
 2. Structural fasteners shall be zinc plated ASTM A325 high strength bolts and A563 high strength nuts.
 3. Structural fasteners shall be hidden within framing members wherever possible.
 4. Structural fasteners shall be manufactured in the U.S
 5. No field welding shall be required to construct the shelter.
 6. All welds shall be free of burrs and inconsistencies.
 7. Exposed fasteners shall be powder coated by manufacturer prior to shipment to match frame or roof colors as applicable.
 8. Manufacturer shall provide extra structural and roofing fasteners.
- G. ROOFING MATERIALS: PRIMARY ROOF DECK: "R" PANEL METAL ROOFING (MR)
 1. Roofing shall be 24 gauge ribbed galvalume steel sheets, with ribs 1 3/16" high and 12" on center.
 2. Roof surface shall be painted with Kynar 500 to the manufacturer's standard color: Ash Grey. Ceiling surface shall be a "wash coat" primer.
 3. Roof panels shall be factory precut to size and angled to provide ease of one-step installation.

4. Metal roofing trim shall match the color of the roof and shall be factory made of 26 gauge Kynar 500 painted steel.
5. Trim shall include panel ridge caps, hip caps, eave trim, splice channels, rake trim, roof peak cap, and corner trim as applicable for model selected. Trim may need to be cut to length and notched. Installation drawings shall have detailed information on how to cut and affix roof trim.
6. Ridge, hip, and valley caps shall be pre-formed with a single central bend to match the roof pitch and shall be hemmed on the sides.
7. Roof peak cap shall be pre-manufactured.
8. Manufacturer shall supply painted screws and butyl tape.

H. SECONDARY ROOF SYSTEM: By Others, not applicable.

I. FINISHES:

1. STANDARD POLI-5000 FINISH: Steel shall be cleaned, pretreated, and finished at a facility owned and directly supervised by the manufacturer.
2. Steel shall be shot blasted to SSPC-SP10 near-white blast cleaning. SSPC-SP2 hand tool cleaning will not be an acceptable alternative.
3. Parts shall be pretreated in a (3) stage iron phosphate or equal washer.
4. Epoxy primer powder coat shall be applied to parts for superior corrosion protection.
5. Top coat of Super Durable TGIC powder coat shall be applied over the epoxy primer.
6. Finish shall not have any VOC emissions.
7. Sample production parts shall have been tested and meet the following criteria:
 - a) Salt spray resistance per ASTM B 117/ ASTM D 1654 to 10,000 hours with no creep from scribe line and rating of 10.
 - b) Humidity resistance per ASTM D2247-02 to 5,000 hours with no loss of adhesion or blistering.
 - c) Color/UV resistance per ASTM G154-04 to 2,000 hours exposure, alternate cycles with results of no chalking, 75% color retention, color variation maximum 3.0 E variation CIE formula (before and after 2,000 hours exposure).
8. The manufacturer shall be PCI 4000 S Certified.
9. Exposed fasteners for frame and ornamentation shall be powder coated to match structure.

J. ACCESSORIES (**Equipment Shelter only**)

1. Electrical Access & Cutouts:

- a) Electrical access to be provided through a 1 1/8" diameter hole in the column base plate and 3/4" diameter holes are provided through connection plates for wire access through columns, trusses, and into the compression ring/tube.
- b) Electrical cutouts shall be provided in 2 places for fixtures or wires.

2. Perforated Metal Screens:

- a) Perforated metal screens shall be made of picture frame sections with perforated .063 gauge Type 3003-H14 aluminum screens which shall be powder coated to match the color of the steel frame of the shelter.
- b) Perforated metal shall be sized to be 1/4" diameter holes with 5/16" staggered centers, 12 holes PSI, 58% overall open area.
- c) Screens shall be cross bent to add rigidity and reduce vibration.
- d) Screens will have a STANDARD POLI-5000.
- e) Color chosen from manufacturer's standard color chart: Juniper.

PART 3 - EXECUTION

3.01 INSTALLER'S STORAGE AND HANDLING

- A. Protect building products after arrival at destination from weather, sunlight, and damage.
- B. Installer shall store product elevated to allow air circulation and to not introduce mold, fungi decay or insects to the product.
- C. Product must be handled with protective straps or padded forks if lifting with mechanical equipment. Use of chain or cable to lift product into place will not be accepted and may void manufacturer's warranty.

3.02 ERECTION

- A. **INSTALLATION:** Install all components according to manufacturer's installation instructions and these specifications.
- B. **GENERAL CONTRACTOR:** Interface with other work is to be coordinated by the customer or the customer's agent. Certain designs have electrical or other plumbing requirements that are not supplied by Poligon.
- C. The structure shall be erected in a work-man-like manner with framing, roofing and trim installed according to the manufacturers' installation instructions. Components of the structure shall be covered and kept dry prior to erection. Care shall be taken to avoid damaging the structure during installation.
- D. **TOLERANCES:** Tolerances on steel structural members are set according to AISC construction practices, abided in the factory, and cannot be increased. No field slotting or opening of holes will be allowed. It is therefore essential that contractors conform to the tolerances specified on the installation drawings for anchor bolt or column layout details.
- E. **OSHA COMPLIANCE:** OSHA Compliance to Steel Erection Standard 29CRF 1926 Subpart R-Steel Erection.

3.03 REPAIR

- A. Do not attempt any field changes without first contacting Poligon.

3.04 TOUCH UP

- A. Touch up powder coat paint with paint provided to prevent rusting. Components of the structure shall be covered and kept dry prior to erection. Additional paint to be provided as requested by the County.

-END OF SECTION-

ATTACHMENT H

SECTION 22 00 00
PLUMBING GENERAL REQUIREMENTS

PART 1 - GENERAL

- 1.01 Requirements of Division 00 and Division 01 apply to work of this Section.
- 1.02 APPLICATION OF THIS SECTION TO WORK OF OTHER SECTIONS:
- A. Plumbing General Requirements applies to all plumbing work specification sections.
 - B. Specifications for plumbing work include, but are not limited to the following sections:
Section 31 23 02 - Excavation and Fill for Utilities
- 1.03 WORK INCLUDED: Furnish materials and equipment and perform labor required to execute this work as indicated on the Drawings, specified herein and necessary to complete the work of this Section, including but not limited to, the following principal items:
- A. Sanitary soil, waste and vent system.
 - B. Domestic water systems.
 - C. Trenching and backfilling for Plumbing work.
 - D. Testing.
 - E. All plumbing fixtures, equipment, and other miscellaneous items required for a complete installation.
 - F. Rough-in and final connections of water and drain to heating equipment and other equipment not included in this Section.
- 1.04 RELATED WORK not included in this section:
- A. Cutting and Patching
 - B. Landscape Irrigation
 - C. Concrete Work
 - D. Painting, except as specified
 - F. Line and low voltage wiring, and conduit
 - G. Fire Protection System
- 1.05 CODES AND REGULATIONS
- A. Comply with all pertinent codes and regulations of all governmental agencies having jurisdiction.
 - B. Permits, Fees and Inspections: Apply and pay for all permits, licenses, fees, etc. for the installation or construction of the plumbing work required by any legally constituted public authorities having jurisdiction and furnish all necessary drawings required for same. Arrange for inspections and examinations so required, and deliver certificates of all inspections to the Owner.
- 1.06 DEFINITIONS, ABBREVIATIONS AND STANDARDS
- A. In compliance with requirements of Division 01 references to technical societies, trade organizations and governmental agencies are made in this Division.
- 1.07 DRAWINGS AND SPECIFICATIONS
- A. The Drawings are in part diagrammatic and are intended to convey the scope of the work; they indicate the general arrangement and approximate sizes of equipment, piping, etc. Follow the Drawings as closely as practicable in laying out the work, be guided by the conditions at the job

and consult the Drawings of the other crafts to become familiar with all conditions affecting the work.

- B. It is the intent of the Drawings and Specifications to provide complete operating systems, unless specifically noted to the contrary. The omission from the Drawings or Specifications of any minor details of construction, installation, materials, or specialties necessary for a safely operable system shall not relieve the Contractor from furnishing such items in place, complete.

1.08 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

- A. Should there appear to be any error or discrepancy in or between the Drawings and Specifications, refer the matter to the Los Angeles County Project Manager for adjustment before proceeding with the work. Should the Contractor proceed with the work without so referring the matter, he does so at his own responsibility.
- B. The Architect will interpret the meaning of any part of the Drawings and Specifications about which any misunderstanding may arise and his decision will be final.
- C. In the event of conflict between or among specified requirements and pertinent regulations, the more stringent requirement shall govern.

1.09 SUBSTITUTIONS

- A. Comply with Division 00 and Division 01 requirements.

1.10 SUBMITTALS

- A. Comply with Division 00 and Division 01 requirements.
- B. Product Data: Submit material list of items to be provided under this Section. Include manufacturers' specifications, catalog cuts, and other data needed to comply with the specified requirements. Submit all product data at one time, bound between covers. Partial submittals or facsimile submittals will not be accepted. Items not submitted will be assumed to be as indicated in the Construction Documents. Reference each item submitted to the relevant specification section.

Shop Drawings or other data, as required, to indicate method of installation and attachment of piping, and equipment, except where such details are fully indicated on the Drawings.

Sterilization Certificate: Upon completion of water line sterilization, deliver to the Architect two copies of an acceptable "Certificate of Performance" for that activity.
- E. Cathodic Protection: Upon completion of the work of this Section, deliver to the Project Manager sufficient data to prove that wrapping of underground steel and copper piping has been tested and meets the specified requirements. Show date of inspection, voltages used, and name and address of the inspector.

1.11 RECORD DRAWINGS

- A. Comply with Division 00 and Division 01 requirements.
- B. Provide and keep at job site a complete record set of blue line prints, corrected daily to show every change from the original Drawings and Specifications. Prints for this purpose may be obtained from the Project Manager.

- C. Project Record Documents of utilities shall be prepared as follows: Depth of lines shall be given from top of pipe to grade. Dimensions shall be given with permanent objects such as buildings, sidewalks, curbs, and driveways as reference points. Where Contractor uses other equipment than noted on drawings, record drawings shall accurately note make, type, and model number of such equipment.
- D. Project Record drawings: Complete set Plumbing Drawings in AutoCAD Release 14 or higher format complete with all external reference drawings, fonts, blocks and plotter pen color / line thickness settings and in PDF format on CD-Rom. Also submit one set of full-size print.
- E. On or before final inspection, Contractor shall deliver corrected and completed prints to the owner's representative responsible for the project. Delivery of prints to will not relieve Contractor of the responsibility of furnishing required information that may have been omitted from prints.

1.12 QUALITY ASSURANCE AND PRODUCT HANDLING

- A. Comply with pertinent provisions of Division 01.
- B. Use all means necessary to protect plumbing materials before, during and after installation and to protect the installed work and materials of all other trades.
- C. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.13 EXAMINATION OF THE SITE

- A. Examine the site and all conditions thereon or therein. Take into consideration all conditions that may affect this work. Lack of this information will not be considered as justification for extra cost or allowances to the Contract sum.

1.14 OPENINGS

- A. Openings or holes for piping or equipment will not be allowed in any structural members without consent of the Architect.
- B. Openings have been indicated on the Architectural and Structural Drawings. At a time in advance of the work, verify the location and size of openings or furnish new instructions as to the requirements for these openings. Should the furnishing of this information be neglected, delayed or incorrect, and additional cutting, notching, or boring is found to be required, the work shall be done as acceptable by the Architect at no additional cost to the Owner.
- C. Make absolutely watertight any openings through waterproofed construction caused by the penetration of piping.

1.15 NOISE AND VIBRATION

- A. It is the specific intent of these Specifications and design conditions that the entire system including equipment, piping, and all other parts be noiseless and free of vibration transmission. Provide vibration dampers, sound insulation pads, flexible connectors and similar material as required, to prevent transmission to the building structure of sound and vibration caused by the flow of fluids, motors, and motor operated equipment. If, as a result of the installation, noise or vibrations occurs in the building, make the necessary corrections at no additional cost to the Owner. Do not reduce the capacity of any equipment.

1.16 WARRANTY

- A. Be responsible for all work under this Section, adjust all valves, controls, vacuum breakers and other incidental items. Leave the system in perfect operating condition. Repair, regulate and replace any defective workmanship, materials, and equipment which may become apparent during warranty period, at no additional cost to the Owner. Furnish the Owner all manufacturer's written warranties of materials and equipment.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Provide all new materials, in proper condition, of the best quality for the purpose intended, clearly marked or stamped with the manufacturer's name and/or stamp and rating.

2.02 ADDITIONAL MATERIALS

- A. Provide additional materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Project Manager.

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

- A. Install all work not indicated in complete detail in conformance with accepted standard practice and manufacturer's recommendation.
- B. Verify all clearances in areas where work will be installed and coordinate the Work with that of the other crafts and other Sections of the Specifications.
- C. Where job conditions, or the Project Manager, require reasonable changes in indicated locations and arrangement, make such changes with no additional cost to the Owner.
- D. Install all apparatus and equipment in a manner and in locations avoiding all obstructions, preserving headroom, and keeping openings and passageways clear. Make the necessary changes in locations of equipment and materials to accomplish this.

3.02 MANUFACTURER'S RECOMMENDATIONS

- A. Install all equipment, materials, fixtures and devices in accordance with the recommendations of the manufacturer and the requirements of the Drawings and Specifications.
- B. In the event of conflict, consult the Project Manager for a decision and perform the Work as acceptable to the Landscape Architect.

3.03 INSTALLATION OF PIPING

- A. Clean all pipe and remove all scale, sand, dirt, etc., before installation. Provide full lengths of pipe whenever possible to minimize the number of couplings.
- B. Cut pipes accurately to measurements established on the site. Work pipes into place without springing or forcing, and properly clear equipment, doors and openings of buildings.

- C. Install piping as straight as possible and make all changes in direction with fittings.
- D. Install all piping to run parallel to the building construction and arrange to form neat and symmetrical patterns to insure the best appearance possible.
- E. Unless otherwise specified, conceal all pipe in walls, partitions or furred spaces.
- F. Install piping at the exterior of the building, at a minimum depth of 18" below finish grade. Do not expose pipes on the exterior of building.
- G. Use proper shoring and rigging methods.
- H. Proceed with the rough piping as rapidly as the general construction work will permit and have all of the rough piping in and stubbed out to the proper point and tested, in each case, before any lath, plaster, drywall or finish work of the ceilings, partitions, walls, or floors are in place.
- I. Install all pipes with allowances for expansion and contraction. Construct so that strains will be evenly distributed without damage to the system. Avoid building in erection stresses into the piping.
- J. Make connection between copper or brass piping and steel with approved dielectric couplings.

3.04 FIRE STOPPING

- A. Install seals and other items at penetrations through fire rated construction.

3.05 PAINTING

- A. No finishing or refinishing shall be done except on properly prepared surfaces. Loose scaling, peeling and sagging finishes shall be removed. All voids shall be puttied smooth and all slick surfaces shall be roughened to provide bond.
- B. Cleaning. Before starting work, dust, dirt, plaster, grease and all other extraneous matter which would affect the finish work shall be removed. Maintain spaces broom clean while painting is in progress.
 - 1. Non-Ferrous Metals, including zinc, copper, galvanized and galvanized process metals: solvent clean all surfaces per SSPC-SP-1 touch-up preparation by Power Tool Cleaning per SSPC-SP-3.
 - 2. Metal Surfaces. Commercial blast per SSPC-SP-6.
- C. Minimum of two coats of paint to be applied. Paint finishes are to be uniform in color, free from cloudy or mottled appearance in surface and evident thinness of coatings. If defects or faults are found, this Contractor shall paint the entire surface to a breaking point with one additional finish coat of paint as specified, at no extra cost to Owner.
- D. Colors to be approved by Landscape Architect.

3.06 TEMPORARY SERVICES

- A. Furnish all water and fuel required for the installation of the work under this Division and other Divisions, and for the period of operation required during testing of the systems.

3.07 TESTING

- A. Test and inspect all work under the supervision of the Owner and/or his representative and authorities having jurisdiction over this work. Deliver four (4) sets of all test charts and reports to the Project Manager.
- B. Pressure Tests: Test the various parts of the systems before piping is concealed as required by governing authorities and pay all costs for same. Show no loss in pressure or visible leaks after a minimum test duration of 24 hours.
- C. Operating Tests:
 - 1. Before final acceptance, perform operating tests for the duration of eight hours. Furnish all labor and instruments for tests.
 - 2. Demonstrate that all machinery and devices comply with Specifications and that there is free and equal circulation from each part of the piping systems, as well as satisfactory operation of all valves, equipment, controls, etc.
- D. Should the Contractor refuse or neglect to make any tests necessary to satisfy the Owner, or his representative, the Owner may make such tests and charge the expense thereof to the Contractor.

3.08 CLEANING

- A. During the progress of the work:
 - 1. Carefully clean up after your workers, and leave the premises and all portions of the building in which you are working, free from debris.
 - 2. Thoroughly clean all equipment and piping to remove dust, scale, plaster, or any internal obstructions before any covering is installed or any piping, or equipment is painted and/or placed in operation.
- B. Upon Completion of Operational Tests:
 - 1. Flush clean inside of pipes, etc., before being placed in operation.
 - 2. Clean all strainers, flush valve diaphragms, faucet outlets, flow controls, etc. and adjust water volume for proper operation.
- C. Upon Completion of the Work and Before Final Acceptance:
 - 1. Remove all temporary protective coverings, rubbish, debris, surplus and left-over materials, tools and equipment from the premises, and leave the site in a neat, clean and acceptable condition.
 - 2. Clean exposed parts of equipment, remove oil and grease, and leave the bright metal parts clean and polished. Clean plumbing fixtures of protective materials and clean and polish the entire assemblies. Thoroughly polish chromium or nickel-plated materials and equipment. Clean floor drain grates and check each fixture to insure against trap stoppage. Restore finished surfaces if damaged, and deliver entire installation in acceptable condition.

3.09 ADJUSTING

- A. Upon completion of and after cleaning of system and equipment, carefully adjust to normal operation the automatic parts of plumbing systems.

-- END OF SECTION --

ATTACHMENT I

SECTION 32 9000 PLANTING

PART 1 – GENERAL

1.1 SCOPE

A. PLANTING WORK includes, but not limited to, the following:

1. Preparing existing topsoil/site soil
2. Soil preparation and fine grading
3. Maintenance of planting areas for 90 days

B. RELATED WORK specified elsewhere:

1. Division 31 - Site Clearing
2. Division 32 - Landscape Grading
3. Division 32 - Landscape Irrigation

C. VERIFICATION OF DIMENSIONS AND QUANTITIES

1. All scaled dimensions are approximate. Before proceeding with any work, the contractor shall carefully check and verify all dimensions and quantities and shall immediately inform the Landscape Architect of any discrepancies between the drawings and/or the specifications and the actual conditions. No work shall be done in any area where there is such discrepancy until approval for same has been given by the Landscape Architect.

D. PLANT AVAILABILITY

The act of providing a bid for this project establishes the Contractor's understanding that the plants specified herein may be unusual and more difficult to locate than the industry standard and that the contractor agrees to the following

1. The contractor shall search for each plant specified. If any California or Arizona nursery has the specified species the Contractor is obligated to purchase healthy containers of the species.
2. Within 60 days after the award of contract, the Contractor shall submit a plant submittal with nursery sources, plant quantities, plant sizes and photos of the plants being supplied. General marketing photos will not be accepted. All photos must be of the actual plants to be purchased.
3. The plant list shall indicate all unavailable plants and which nurseries were contacted during the Contractor's search.
4. Each plant supplied to the project, must be tagged for accuracy of identification and verification of the correct variety by a Verified Tag or label affixed, no exceptions.
5. Landscape Architect reserves the right to reject any plant delivered to the site that does not meet the same quality as indicated in the approved submitted photos.

E. SUBMITTALS

1. Comply with provisions of General Specifications.
2. Submit complete lists of landscape materials and equipment, including manufacturers name and address, specific trade names, catalog numbers complete with illustrations and descriptive literature and clearly mark or underline proposed items; list source of landscape mulch.
3. Shop Drawings: Required for any landscape structure.

F. CERTIFICATIONS

1. Certified label for all plant material marked with a * on the planting plan list of plants. Each plant supplied to the project, and indicated by the * mark must be tagged for accuracy of identification and verification of the correct variety by a Verified Tag or label affixed. This label must display the trademark logo of the aforementioned description, with the botanical name of the correct plant printed on the same label. Any plant varieties marked on the planting plan with the above instruction that does not arrive on-site with the required label will be rejected at the contractor's expense, and cannot be installed on the project. These labels are accessible to any supplier/grower of nursery plants who has the correct varieties requested for this project.
2. In addition to other required certification, furnish a certificate with each delivery of bulk material, including mulch, and mycorrhizal inoculant, stating its source, quantity, type of material furnished and that such item or material conforms to the requirements of this section.

G. MULCH: Supreme Walk-On Bark available from C & M Topsoil (818) 899-5485. Submit mulch sample for approval prior to use.

H. MYCORRHIZAL INOCULUM

1. Tea bags or drench, per manufacturer's specifications per plant size and/or area. Tri-C Products 1-800-927-3311 or equal.

I. HYDROSEED WILDFLOWER, GRASSES, OR NATIVE PLANT MIX OR SINGLE SPECIES SEED

1. Seed as listed on plan.

J. OBSERVATION

1. All observation herein specified shall be made by the County Representative. The contractor shall request observation at least 48 hours in advance of the time observation is required. Observation will be required on the following parts of the work:
 - a) During preliminary grading, soil preparation, and initial weeding.
 - b) When finish grading has been completed, and prior to the planting of ground cover or seeded turf.
 - c) When planting and all other indicated or specified work has been completed but prior to maintenance period.
 - d) Final observation at completion of maintenance period.

2. The contractor shall be on the project site at the time of each observation.

K. AGRONOMICAL SOILS REPORT

1. Contractor to provide and pay for three samples of an Agronomical Soils Report and provide amendments to the soil in proposed planting areas per the recommendations of the soils report or the planting notes, whichever requires the most amendment. The addition of "No" soil amendment is not acceptable. Significant amendment costs including extensive soil removal and replacement, soil leaching, etc. to be approved by the County representative prior to purchase and/or application.

L. MAINTENANCE

1. Contractor shall continuously maintain all areas included in the Contract during progress of the work, the 90-day maintenance period, and until final acceptance of the work.
2. If plantings are not acceptable at the end of the maintenance period for the entire work, due to defective maintenance, the maintenance shall be continued by the Contractor until all work meets the Specifications and can be approved.
3. Maintenance shall include continuous operations of watering, weeding, mowing, rolling, trimming, edging, cultivating, fertilizing, spraying, insect and pest control, seeding, and/or other operations necessary to assure good normal growth.
4. All planted areas shall be kept free of debris and shall be weeded at not more than 10-day intervals.
5. During the installation period and maintenance, the Contractor shall be responsible for maintaining adequate protection for all areas. Any damaged planting shall be repaired at the Contractor's expense.
6. At the termination of the maintenance period, all plant materials shall be live, healthy, undamaged, and free of infestations. All lawn areas shall be completely covered at the time of final acceptance. Inferior plantings shall be replaced and brought to a satisfactory condition before final acceptance of the work will be made.

M. GUARANTEE

1. The Contractor, within 15 days of written notification by the County Representative, shall remove and replace all guaranteed plant material that for any reason fails to meet the requirements of the guarantee. Replacement material and plantings shall be to the same specifications as required for the original planting and all replacements shall be guaranteed as specified for the original guaranteed materials and must be obtained for a minimum of a 90-day maintenance period.

PART 2 – PRODUCTS

2.1 MATERIALS

A. AMMONIUM PHOSPHATE

1. Shall be a standard agricultural grade of ammonium phosphate having guaranteed analysis of 16-20-0.
- B. ESTABLISH - GENERAL PURPOSE FERTILIZER
 1. Shall have a minimum analysis of 1-1.3-5,(N-P-K), derived from rock phosphate, peat moss, chicken manure, sand, sulfate of potash, gypsum, and EDDHA chelate. As manufactured by Earth Works Soil Amendment, Inc., (951) 538-3321, or an approved equal.
- C. FEATHER MEAL
 1. Shall have a minimum analysis of 12-0-0,(N-P-K), derived from feathermeal. As manufactured by Earth Works Soil Amendment, Inc., (951) 538-3321, or an approved equal.
- D. FERTILIZER TABLETS
 1. Shall be fertilizer tablets shall be Agriform 21 gram, 20-10-5, available from Nutrien Ag Solutions, (714) 549-2871 or an approved equal.
- E. GYPSUM
 1. Shall be agricultural grade.
- F. MYCORRHIZAL INOCULUM
 1. Tea bags or drench, per manufacturer's specifications per plant size. Tri-C Products (909) 590-1790 or equal.
- G. HYDROSEED MULCH FIBER
 1. Shall consist of virgin wood fiber of Aspen or Alder. It shall not contain any waste paper, newsprint or straw material. The mulch shall contain a green dye to facilitate application. Fiber shall be as manufactured by Conwed Fibers, Silva-Fiber by Weyerhaeuser Co., or an approved equal, (212-1.2 (e)).
- H. HYDROSEED STABILIZER
 1. Shall consist of natural muciloid materials supplied by Ecology Controls M-binder, available from S&S Seeds, (805) 684-0436, no equal.
- I. HYDROBLEND SOIL ACTIVATOR
 1. Shall have a minimum analysis of 1.2-1.4-5, (N-P-K), derived from rock phosphate, peat moss, chicken manure, sulfate of potash, gypsum. As manufactured by Earth Works Soil Amendment, Inc., (951) 538-3321, or an approved equal.
- J. MULCH
 1. Shall be Supreme Walk On Mulch, available from C & M Topsoil (818) 899-5485, free of all foreign matter including weed and tree seeds. Mulch chip size shall be minimum one (1) inch in diameter and not more than two (2) inches in diameter. Submit sample of mulch and source to Landscape Architect/Project Manager for

approval prior to application. Also may be available from Whittier Fertilizer, (562) 699-3461, or approved equal.

K. NITROFORM UREAFORM

1. Shall be a standard commercial grade of nitroform having a guaranteed analysis of 38-0-0.

L. ORGANIC AMENDMENT

1. Shall be organic soil amendment, see soils report and planting plan notes.

M. OVERSEED TOPDRESSING, EARTH WORKS ORGANIC TOPDRESSING

1. Shall be, derived from composted wood products, peat moss, chicken manure and a wetting agent. As manufactured by Earth Works Soil Amendment, Inc., (951) 538-3321, or an approved equal.

N. POTASSIUM SULFATE

1. Shall be a standard agricultural grade of potassium sulfate having guaranteed analysis of 0-0-50.

O. PRE-EMERGENT HERBICIDE

1. Shall be Balan Granular, by Elanco, or an approved equal. All pre-emergent herbicides, when required, shall be specified and applied by a licensed Pest Control Advisor.

P. ROUNDUP: use per manufacturers requirements on all turf areas for the full three applications.

Q. SOIL (not applicable)

1. Designated as imported soil for pit planting only as specified herein. The soil test will determine the suitability of soil before installation. Transport soil from the source to its final position unless stockpiling is specified.
2. Imported Soil for limited pit planting only:
 - 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 soil and a Sample to the Architect. Submit a written request for review, accompanied by a written report of a soils testing laboratory registered by the 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 nutrient levels to support healthy plant growth.

- e) Imported topsoil shall be of a uniform composition and structure, fertile and friable sandy loam garden soil, and be free of roots, clods and stones larger than 1 inch in greatest dimension, pockets of coarse sand, noxious weeds, sticks, brush and other litter and not be infested with nematodes or other undesirable insects and plant disease organisms. Imported topsoil shall meet the following additional requirements:
 - (1) Gradation Limits: Sand – 50-80%, clay – 20% maximum, and silt – 30% maximum. The sand, clay and silt gradation limits shall be as defined in ASTM D 422.
 - (2) Agricultural Suitability and Fertility: The soil shall be fertile and friable garden soil suitable for sustaining and promoting the growth of the specified plants.

R. TURFGRASS SEED

- 1. Seed for seeding damaged turf areas shall be: Marathon 100% tall fescue.

S. PLANTS

- 1. All plants are to be nursery grown under similar climatic conditions as the site. Plants shall conform to the American Standard for Nursery Stock, ANSI Z60.1-2004 as published by the American Nursery & Landscape Association, unless specified otherwise in the plans.
- 2. Plant Acceptance:
 - a) Sample trees, shrubs and groundcovers, as specified in the plans, shall be approved for use and shall be made available to the Landscape Architect or City Representative for approval, prior to ordering and delivering. Name of the grower, guarantee of availability of quantities and conformance to the specifications must be furnished in writing to the Landscape Architect or City Representative prior to ordering of the approved plant. Digital color photographs may be used for approval.
 - b) Upon approval of the plant material, ordering may be placed.
 - c) Plants shall be transported so that they are not exposed to wind, extremes of temperature, or conditions, which would cause them to dry or sunburn.
 - d) **Plants shall be inspected at time of arrival** to insure they are healthy and in good condition. Any plant found not in conformance with the specifications, shall be rejected. A copy of the shipping bill shall be provided to the inspector at the time of delivery, to ensure the proper quantities of plants have been delivered (see Certification requirements above).
 - e) **Proof of individual hybrids will be required for each specified. Plants must be tagged and proven to be the specified hybrid.**

PART 3 – EXECUTION

3.1 METHODS

A. TOPSOIL PREPARATION – GENERAL

- 1. The topsoil shall be the existing class "C" on-site topsoil. Remove all stones over 1 inch in greatest dimension, to a depth of 6 inches below finish grade, (308-2.3.1).

2. Prior to planting, the top two (2) inches of all areas (including slopes) shall be free of weeds, stones, and other deleterious matter one (1) inch in diameter and larger.

B. TOPSOIL PREPARATION

1. If not otherwise specified, all turf areas shall receive the following soil preparation. Uniformly broadcast the following materials per 1,000 square feet.:
 - a) Yara or Simplot calcium ammonium nitrate (27-0-0) – 4 pounds
 - b) Potassium sulfate (0-0-50) – 6 pounds in areas where needed
 - c) Triple superphosphate (0-45-0) – 4 pounds in areas where needed such as lower open space
 - d) Gypsum – 15 pounds
 - e) Organic amendment – 3 cubic yards in areas where to be planted, sufficient amount to provide soil organic matter in the range of 4% to 7% on a dry weight basis
 - f) The soil preparation materials shall be cultivated into the soil to a depth of 6 inches minimum and thoroughly watered, (308-2.3.1).

C. FINISH GRADING

1. Finish grading of planting areas shall take place after the soil has dried out to a workable condition following the soil preparation operations. The soil shall be remodeled and smoothed to the required grades and contours. Any resulting irregularities in the grade after the initial finish grading shall be re-raked, cut or filled, then re-rolled until the grade is free from irregularities. No heavy objects shall be taken over the areas at any time. The final finish grade shall be uniform, without abrupt changes in grade, within one-tenth of a foot of the grades shown on the plan, and approved by the Project Manager prior to planting.

D. WEED SUPPRESSION (*Non-Herbicide Weed Removal*)

1. Weed suppression, shall apply to all turf and planting areas. The suppression operation shall be commenced only after removals, grading, hardscape construction, installation of irrigation system, soil preparation, and fine grading of turf and planting areas have been completed. Contractor shall thoroughly water all turf and planting areas for a period of two weeks minimum prior to commencing removal. Contractor shall clear site of all dead vegetation and living weeds by hand or mechanical means. All removed vegetation shall be properly disposed of off-site.

E. GENERAL PLANTING

1. If the moisture content of the soil should reach such a level that working it would destroy the soil structure, spreading and grading operations shall be suspended until the moisture content is increased or reduced to acceptable levels and the desired results are likely to be obtained.
2. Actual planting shall be performed during those periods when the weather and soil conditions are suitable in accordance with locally accepted horticultural practice and approved by the project manager.

3. The Contractor shall only install as many plants per day as can be watered on the same day. All plants shall be thoroughly watered into the full depth of each planting hole immediately after planting.

F. TREE AND SHRUB PLANTING

1. Plant pits for all 1 gallon, 5 gallon, 15 gallon, and all boxed size trees, shall be twice the width and equal to the depth of the container rootball. Note that this requirement differs from the SSPWC (308-4.5).
2. Unless otherwise specified, the backfill mix for all plants shall be 70% percent on site soil and 30% percent Type I organic soil amendment and 1 lb. of "Establish," general purpose fertilizer per gallon of container, or 1 lb. per each 4" of box size.
3. Each plant pit shall also receive "Agriform" slow release fertilizer tablets, 21 gram, 20-10-5, as shown in the relevant planting details, and as follows:
 - 1 gallon – 1 tablet
 - 5 gallon – 2 tablets
 - 15 gallon – 6 tablets
 - Larger than 15 gallon size – 2 tablets per half inch of trunk diameter
4. Space tablets evenly around the perimeter of the rootball, approximately 3 inches below finish surface. After shrub or tree has been planted, water by hand to hydrate polymer.
5. Remove all watering basins around trees planted in lawn areas at the end of the maintenance period. All trees planted in lawn areas shall have a 36 inch diameter unplanted area around each tree.

G. METHOD "A" TURF PLANTING – REPAIR, SEEDING

1. Irrigation trenches shall be fully compacted and the grade brought flush with the adjacent undisturbed finish grade. Irrigation trench areas and areas where equipment has damaged the existing turf shall have the grade repaired and be seeded per this section.
2. Sow seed at a rate recommended by Marathon Sod Company per 1,000 sq. ft. Mulch all seed with 1/4"(or 3/4 cubic yard per 1,000 sq. ft.) of Bio-organic Finale.

H. METHOD "B" TURF PLANTING, HYDROSEEDING

1. The lawn seed mix for turf planting shall contain the following materials at the rates specified:
 - Mulch Fiber – 1,500 lbs./acre (.0345 lbs./sq.ft.)
 - Stabilizer – 120 lbs./acre (.0028 lbs./sq.ft.)
 - Fertilizer – Hydroblend, at 3,000 lbs./acre (.0688 lbs./sq.ft.)
 - Seed by Weight – 500 lbs. per acre / 12 lbs. per 1,000 sq. ft.
2. The Contractor shall supply a delivery receipt to the BCA Inspector certifying conformance with the specified hydroseed mix and indicating that the slurry has not been mixed for longer than two hours. Slurry which has been mixed longer than two hours shall be recharged with 50 percent more of the specified seed mix, at the

Contractor's expense, (308-4.8.2(b)). Delivery tickets shall be forwarded to the Project Manager.

I. MULCHING

1. All planting areas except lawn shall receive a minimum three (3) inch deep layer of mulch per the Planting Details and this specification's materials list. Mulch shall be spread evenly throughout planting beds and tree watering basins. Do not bury ground cover. Keep mulch 12" away from tree trunks.

J. MAINTENANCE AND PLANT ESTABLISHMENT

1. The Contractor shall be responsible for maintenance within the area of work throughout the period of construction and the plant establishment period. The maintenance shall include continuous operations of picking up trash and emptying trash cans daily, watering, the removal of all weeds in planting areas and all broad leaf weeds in lawn areas, mowing, rolling, trimming, edging, cultivation, fertilization, spraying, control of pests, insects and rodents, reseeding, plant replacement (irrespective of cause), or any other operations necessary to assure normal plant growth and the collection and removal of all trash daily. Any malfunctions of, or damage to, the irrigation system caused by the Contractor in the prosecution of his work shall be repaired within 24 hours.
2. The plant establishment period shall be for a period of 90 days unless extended as described in this section. The plant establishment period shall be started when all planting and related work has been completed, in accordance with the contract documents. The beginning of the plant establishment period shall be determined by an on-site review by the Project Manager. Trees and shrubs shall be healthy and vigorous at the completion of the maintenance period. Broken or vandalized tree stakes shall be repaired to a condition as initially installed within seven (7) days of damage.
3. All turf areas shall have 95 percent coverage with bare areas not exceeding three square inches. All turf shall be of the grass specified and be free from all broad leaf weeds. The turf shall not be allowed to grow higher than three (3) inches and shall be mowed to a one and one half (1 ½) inch height. The turf shall be mowed at least twice during the plant establishment period.
4. The entire area of work shall be kept free of weeds, trash or other debris during the maintenance period. The Contractor shall maintain the area of work at maximum seven (7) day intervals and perform any needed mowing of existing lawns within the area of work when the grass reaches a four (4) inch height.
5. Five weeks after lawn seeding the Contractor shall apply a slow release 38-0-0 granular fertilizer at a rate of 15 pounds per 1000 sq. ft. to all lawn areas. The fertilizer shall be applied in the presence of the BCA Inspector.
6. The Contractor shall immediately replace any and all plant materials and/or grass which, for any reason dies or is damaged while under the Contractors care. Replacement shall be made with seed and/or plants as indicated or specified for the original planting.

7. All shrubs and ground covers shall be guaranteed for a period of ninety (90) days from the end of the plant establishment period. All trees and shrubs 15 gallon size or larger shall be guaranteed for a period of one (1) year from the end of the plant establishment period.
8. The designated plant establishment period is part of the total contract time. The plant establishment period will be extended at fourteen (14) day intervals if, at the end of the plant establishment period, the planting, irrigation and other improvements do not reflect the intent of the plans and Notice to Contractors. All extensions of the plant establishment period shall be subject to the assessment of liquidated damages, (308-6).

- END OF SECTION -

ATTACHMENT J

County of Los Angeles
Department of Public Works
Whittier Narrows Recreation Area Splash Pad Project - REBID
June 18, 2026 @ 10:00 a.m.

Pre-Bid Conference Sign-In Sheet

Name	Company Name	Prime or Sub Contractor	E-mail Address	Phone
BABAK NEHORAY	LUMAR CORP.	P	info@LumarCorporation.com	310-477-6338
SONNY CHAN	ROYAL CONST. CORP.	Prime	sonnychan@royalconstructionhawaii.com	626-358-6688
Othannes Koosherian	Ian Thomas Group	Prime	bids@ianthomasinc.com	818-334-9990
PAUL Flores	L.A. County Parks+Rec	Plumbing Supervisor	Flores@Parks.LACounty.gov	626-241-5917
Robert A. Beaton	Metro Builders	Prime	estimating@metrobuilders.com	949-515-4350
Adrian Crisol	Metro Builders	Prime	estimating@metrobuilders.com	949-515-4350
Courtney Tossanien	Public Works		ctossanien@dpw.lacounty.gov	626-228-1404
Elizabeth Zaragaza-Pham	LAC Public Works		ezaragaza-pham@dpw.lacounty.gov	
Robert Murphy	LAC Public Works		rmurphy@dpw.lacounty.gov	
JOHN MOON	MTM CONSTRUCTION	PRIME	jmoon@mtminc.us	626-934-1112
Will Merrado	LACPR	OWNER	wmerrado@parks.lacounty.gov	626-575-5520