

ATTACHMENT E
SUPPLEMENTARY SPECIAL PROVISIONS

SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

1. The **2015 Edition** of the Standard Specifications for Public Works Construction (The "GREENBOOK").
 2. The **2015 Edition** of the City of San Diego Standard Specifications for Public Works Construction (The "WHITEBOOK"), including the following:
 - a) General Provisions (A) for all Contracts.
-

SECTION 2 - SCOPE AND CONTROL OF WORK

2-3.2 Self Performance. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. You shall perform, with your own organization, Contract Work amounting to at least 50% of the base Bid.

2-5.4.2 Asset Specific Red-lines. To the "WHITEBOOK", ADD the following:

1. **Fiber Optic and WIFI Device Red-lines.** Fiber Optic and WIFI Device Red-lines shall clearly record by dimension from 2 known fixed points and by depth of underground facilities all deviations, modifications, and changes in the Work. Records, deviations, modifications, and changes on the day the Work is performed shall reflect the actual Work location and shall be marked in red at the scale of the Plan sheet on which they are recorded. Red-lines shall show the equipment locations and associated information for the following:
 - a) Locations and depths of underground utilities.
 - b) Revisions to the routing of piping and conduits.
 - c) Actual equipment locations.
 - d) Pull Boxes.
 - e) Electrical Meter, including meter address.
 - f) Items abandoned in place.

2-7 SUBSURFACE DATA. To the "WHITEBOOK", ADD the following:

4. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests of subsurface conditions at the Work Site:
 - a. Geotechnical Evaluation dated June 29, 2017 by Ninyo & Moore and Associates.

5. The reports listed above are available for review by contacting the Contract Specialist or visiting:

<https://filecloud.sandiego.gov/url/we85jdbqyrnj35ue>

2-9.1 Permanent Survey Markers. To the "WHITEBOOK", item 3, DELETE in its entirety and SUBSTITUTE with the following:

3. You shall submit to the Engineer a minimum of 7 Days prior to the start of the Work a list of controlling survey monuments which may be disturbed. CMFS (or the private owner for Permit Work) shall perform the following:
 - a) Set survey points outside the affected Work area that reference and locate each controlling survey monument that may be disturbed.
 - b) File a Corner Record or Record of Survey with the County Surveyor after setting the survey points to be used for re-establishment of the disturbed controlling survey monuments.
 - c) File a Corner Record or Record of Survey with the County Surveyor after re-establishment of the disturbed controlling survey monuments.

ADD:

2-10 AUTHORITY OF THE BOARD AND THE ENGINEER. To the "GREENBOOK", Paragraph (2), DELETE in its entirety and SUBSTITUTE with the following:

The decision of the Engineer is final and binding on all questions relating to: quantities; acceptability of material, equipment, or work; execution, progress or sequence of work; requests for information (RFI), and interpretation of the Plans, Specifications, or other Contract Documents. This shall be precedent to any payment under the Contract. The Engineer shall be the single point of contact and shall be included in all communications.

2-16 CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM. To the "WHITEBOOK", item 1, DELETE in its entirety.

SECTION 3 – CHANGES IN WORK

3-3.2.3 Markup. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. Work paid under Allowance Bid items for permits, governmental fees, or direct payments specified in the Contract Documents shall not be subject to any markups.

2. The allowance for overhead and profit shall not exceed the values listed in the table below:

Component	Overhead	Profit
Labor	10%	10%
Material	10%	5%
Equipment	10%	5%

3. Markups for materials shall be applied to the actual cost of the material before applying the sales tax.
4. When a Subcontractor is performing Extra Work, the allowance for overhead and profit shall be applied to the labor, materials, and equipment costs of the Subcontractor as follows:
- a) Regardless of the number of Subcontractor tasks for Extra Work, you may only apply 10% for the first \$50,000 of the Subcontractor's portion of accumulated total cost.
 - b) If the accumulated costs of single or subsequent tasks exceed the \$50,000 threshold, you shall instead only apply 5% to any amounts in excess of the \$50,000.
 - c) You shall not apply 10% to any costs after the first \$50,000 of accumulated total costs from performing Extra Work.
 - d) Regardless of the number of hierarchical tiers of Subcontractors, you may only markup a Subcontractor's Work once.

3-5.1 **Claims.** To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

ADD:

3-5.1 **Claims.**

- 1. A Claim is a written demand by you that seeks an adjustment in the Contract Price, Contract Time, or other relief associated with a dispute arising under or relating to the Contract, including a breach of any provision thereof. A voucher, invoice, or other routine request for payment is not a Claim.
- 2. A Claim shall conform to these specifications and may be considered after the City has previously denied a request by you for a Change Order seeking the demanded relief.

3. You shall submit a Claim to the Engineer if a dispute occurs that arises from or relates to the Contract. The Claim shall seek all relief to which you assert you are entitled as a result of the event(s) giving rise to the dispute. Your failure to process a Claim in accordance with these specifications shall constitute a waiver of all relief associated with the dispute. Claims are subject to 6-11, "Right to Audit".
4. You shall continue to perform the Services and Work and shall maintain the Schedule during any dispute proceedings. The Engineer will continue to make payments for undisputed Services and Work.
5. The City's Claims process specified herein shall not relieve you of your statutory obligations to present claims prior to any action under the California Government Code.

3-5.1.1 Initiation of Claim.

1. You shall promptly, but no later than 30 Days after the event(s) giving rise to the Claim, deliver the Claim to the Engineer.
2. You shall not process a Claim unless the Engineer has previously denied a request by you for a Change Order that sought the relief to be pursued in the claim.

3-5.1.1.1 Claim Certification Submittal.

1. If your Claim seeks an increase in the Contract Price, the Contract Time, or both, submit with the Claim an affidavit certifying the following:
 - a) The Claim is made in good faith and covers all costs and delays to which you are entitled as a result of the event(s) giving rise to the Claim.
 - b) The amount claimed accurately reflects the adjustments in the Contract Price, the Contract Time, or both to which you believe you are entitled.
 - c) All supporting costs and pricing data are current, accurate, and complete to the best of your knowledge. The cost breakdown per item of Work shall be supplied.
 - d) You shall ensure that the affidavit is executed by an official who has the authority to legally bind you.

3-5.1.2 Initial Determination.

1. The Engineer will respond in writing to your Claim within 30 Days of receipt of the Claim.

3-5.1.3 Settlement Meeting.

1. If you disagree with the Initial Determination, you shall request a Settlement Meeting within 30 Days. Upon receipt of this request, the Engineer will schedule the Settlement Meeting within 15 Working Days.

3-5.1.4 City's Final Determination.

1. If a settle agreement is not reached, the City shall make a written Final Determination within 10 Working Days after the Settlement Meeting.
2. If you disagree with the City's Final Determination, notify the Engineer in writing of your objection within 15 Working Days after receipt of the written determination and file a "Request for Mediation" in accordance with 3-5.2, "Dispute Resolution Process".
3. Failure to give notice of objection within the 15 Working Days period shall waive your right to pursue the Claim.

3-5.1.5 Mandatory Assistance.

1. If a third party dispute, litigation, or both arises out of or relates in any way to the Services provided under the Contract, upon the City's request, you shall agree to assist in resolving the dispute or litigation. Your assistance includes, but is not limited to the following:
 - a) Providing professional consultations.
 - b) Attending mediations, arbitrations, depositions, trials, or any event related to the dispute resolution and litigation.

3-5.1.5.1 Compensation for Mandatory Assistance.

1. The City will reimburse you for reasonable fees and expenses incurred by you for any required assistance rendered in accordance with 3-5.1.5, "Mandatory Assistance" as Extra Work.
2. The Engineer will determine whether these fees and expenses were necessary due to your conduct or failure to act.
3. If the Engineer determines that the basis of the dispute or litigation in which these fees and expenses were incurred were the result of your conduct or your failure to act in part or in whole, you shall reimburse the City for any payments made for these fees and expenses.
4. Reimbursement may be through any legal means necessary, including the City's withholding of your payment.

3-5.2.3 Selection of Mediator. To the “WHITEBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

1. A single mediator, knowledgeable in construction aspects and acceptable to both parties, shall be used to mediate the dispute.
2. To initiate mediation, the initiating party shall serve a Request for Mediation at the American Arbitration Association (AAA) on the opposing party.
3. If AAA is used, the initiating party shall concurrently file with AAA a “Request for Mediation” along with the appropriate fees, a copy of requested mediators marked in preference order, and a preference for available dates.
4. If AAA is selected to coordinate the mediation (Administrator), within 10 Working Days from the receipt of the initiating party’s Request for Mediation, the opposing party shall file the following:
 - a) A copy of the list of the preferred mediators listed in preference order after striking any mediators to which they have any objection.
 - b) A preference for available dates.
 - c) Appropriate fees.
5. If the parties cannot agree on a mediator, then each party shall select a mediator and those mediators shall select the neutral third party to mediate the matter.

3-5.3 Forum of Litigation. To the “WHITEBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

1. It is the express intention that all legal actions and proceedings related to the Contract or Agreement with the City or to any rights or any relationship between the parties arising therefrom shall be solely and exclusively initiated and maintained in courts of the State of California for the County of San Diego.

ADD:

3-5.4 Pre-judgment Interest.

1. The parties stipulate that if a judgment is entered against a party for breaching this Contract, the pre-judgment interest shall be two percent (2%) per annum.

SECTION 4 - CONTROL OF MATERIALS

4-1.3.3 Inspection of Items Not Locally Produced. To the "WHITEBOOK", DELETE in its entirety.

ADD:

4-1.3.3 Inspection of Items Not Locally Produced. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. When you intend to purchase materials, fabricated products, or equipment from sources located more than 200 miles (321.9 km) outside the geographical limits of the City, City Lab staff or a qualified inspection agency approved by the Engineer, shall be engaged at your expense to inspect the materials, equipment, or process.
2. This approval shall be obtained before producing any material or equipment. City Lab staff or inspector shall evaluate the materials for conformance with the requirements of the Plans and Specifications. You shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by City Lab staff or the approved agent. Approval by said agent shall not relieve you of responsibility for complying with the requirements of the Contract Documents.
3. The Engineer may elect City Lab staff to perform inspection of an out-of-town manufacturer. You shall incur additional inspection costs of the Engineer including lodging, meals, and incidental expenses based on Federal Per Diem Rates, along with travel and car rental expenses. If the manufacturing plant operates a double shift, a double shift shall be figured in the inspection costs.
 - a) At the option of the Engineer, full time inspection shall continue for the length of the manufacturing period. If the manufacturing period will exceed 3 consecutive weeks, you shall incur additional inspection expenses of the Engineer's supervisor for a trip of 2 Days to the site per month.
 - b) When the Engineer elects City Lab staff to perform out-of-town inspections, the wages of staff employed by the City shall not be part of the additional inspection expenses paid by you.
 - c) Federal Per Diem Rates can be determined at the location below:

<https://www.gsa.gov/portal/content/104877>

4-1.3.4 Inspection Paid For By the Contractor. To the "WHITEBOOK", ADD the following:

1. The special inspections required are listed as follows:
 - a) Play Equipment and Safety Surface.
 - b) Concrete Work 3000 psi or greater.
 - c) Picnic Shelter.

4-1.3.5.1 Special Inspection. To the "WHITEBOOK", ADD the following:

1. The payment for special inspection Work specified under this section shall be paid in accordance with 4-1.3.4.1, "Payment".

4-1.3.6 Preapproved Materials. To the "WHITEBOOK", ADD the following:

2. You shall submit in writing a list of all products to be incorporated in the Work that are on the AML.

4-1.6 Trade Names or Equals. To the "WHITEBOOK", ADD the following:

3. You shall submit your list of proposed substitutions for an "equal" item **no later than 5 Working Days after the determination of the Apparent Low Bidder** and on the City's Product Submittal Form available at:

<http://www.sandiego.gov/publicworks/edocref/index.shtml>

SECTION 5 – UTILITIES

5-1.1 General. To the "WHITEBOOK", ADD the following:

9. **90 Calendar Days** prior to any paving work, you shall notify the utility owner to provide them adequate time to adjust their utility box frame and cover to finish grade.

5-2 PROTECTION. To the "WHITEBOOK", item 2, ADD the following:

- a) Refer to **Appendix "G"** for more information on the protection of AMI devices.

5-6 COOPERATION. To the "GREENBOOK", ADD the following:

2. Notify SDG&E at least 10 Working Days prior to excavating within 10 feet of SDG&E Underground High Voltage Transmission Power Lines (69 KV and higher).

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1.1

Construction Schedule. To the "WHITEBOOK", item 5, 9, 20, and 22, DELETE in its entirety and SUBSTITUTE with the following:

5. Monthly progress payments are contingent upon the submittal of an updated Schedule and cash flow forecast as discussed in item 22 of 6-1.1, "Construction Schedule" to the Engineer. The Engineer may refuse to recommend the whole or part of any monthly payment if, in the Engineer's opinion, your failure or refusal to provide the required Schedule and cash flow forecast information precludes a proper evaluation of your ability to complete the Project within the Contract Time and amount.
9. Inclusive to the Contract Time, include 15 Working Days to the Schedule for the generation of the Punchlist. You shall Work diligently to complete all Punchlist items within 30 Working Days after the Engineer provides the Punchlist.
20. The **90 Calendar Day** for the Plant Establishment Period is included in the stipulated Contract Time and shall begin with the acceptance of installation of the vegetation plan in accordance with Section 801-6, "MAINTENANCE AND PLANT ESTABLISHMENT".
22. With every pay request, submit the following:
 - a) An updated cash flow forecast showing periodic and cumulative construction billing amounts for the duration of the Contract Time. If there has been any Extra Work since the last update, include only the approved amounts.
 - b) A curve value percentage comparison between the Contract Price and the updated cash flow forecast for each Project ID included in the Contract Documents. Curve values shall be set on a scale from 0% to 100% in intervals of 5% of the Contract Time. Refer to the Sample City Invoice materials in **Appendix D – Sample City Invoice** and use the format shown. Your invoice amounts shall be supported by this curve value percentage. For previous periods, use the actual values and percentages and update the curve value percentages accordingly. See "Cash Flow Curve Fitting Example" at the location below:

<https://www.sandiego.gov/publicworks/edocref>

ADD:

6-3.2.1.1

Environmental Document.

1. The City of San Diego has prepared a **Notice of Exemption** for **Skyline Hills Community Park ADA Upgrades**, Project No. **S-15038**, as referenced in the

Contract Appendix. You shall comply with all requirements of the **Notice of Exemption** as set forth in **Appendix A**.

2. Compliance with the City's environmental document shall be included in the Contract Price.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-3 INSURANCE. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

7-3 INSURANCE.

1. The insurance provisions herein shall not be construed to limit your indemnity obligations contained in the Contract.

7-3.1 Policies and Procedures.

1. You shall procure the insurance described below, at its sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.
2. Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
3. You shall maintain this insurance for the duration of this Contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this Contract. Your liabilities under the Contract, e.g., your indemnity obligations, is not deemed limited to the insurance coverage required by this Contract.
4. The payment for insurance shall be included in the Contract Price as bid by you. Except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any Work under this Contract until you have provided and the City has approved all required insurance.
5. Policies of insurance shall provide that the City is entitled to 30 Days (10 Days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

7-3.2 Types of Insurance.

7-3.2.1 Commercial General Liability Insurance.

1. Commercial General Liability Insurance shall be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
2. The policy shall cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There shall be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You shall maintain the same or equivalent insurance for at least 10 years following completion of the Work.
4. All costs of defense shall be outside the policy limits. Policy coverage shall be in liability limits of not less than the following:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
Other than Products/Completed Operations	\$2,000,000
Products/Completed Operations Aggregate Limit	\$2,000,000
Personal Injury Limit	\$1,000,000
Each Occurrence	\$1,000,000

7-3.2.2 Commercial Automobile Liability Insurance.

1. You shall provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles ("Any Auto").
2. All costs of defense shall be outside the limits of the policy.

7-3.2.5 Contractors Builders Risk Property Insurance.

1. You shall provide at your expense, and maintain until Final Acceptance of the Work, a Special Form Builders Risk Policy or Policies. This insurance shall be in an amount equal to the replacement cost of the completed Work (without deduction for depreciation) including the cost of excavations, grading, and filling. The policy or policies limits shall be 100% of this Contract value of the Work plus 15% to cover administrative costs, design costs, and the costs of inspections and construction management.

2. Insured property shall include material or portions of the Work located away from the Site but intended for use at the Site and shall cover material or portions of the Work in transit. The policy or policies shall include as insured property scaffolding, falsework, and temporary buildings located at the Site. The policy or policies shall cover the cost of removing debris, including demolition.
3. The policy or policies shall provide that all proceeds thereunder shall be payable to the City as Trustee for the insured, and shall name the City, the Contractor, Subcontractors, and Suppliers of all tiers as named insured. The City, as Trustee, will collect, adjust, and receive all monies which may become due and payable under the policy or policies, may compromise any and all claims thereunder, and will apply the proceeds of such insurance to the repair, reconstruction, or replacement of the Work.
4. Any deductible applicable to the insurance shall be identified in the policy or policies documents and responsibility for paying the part of any loss not covered because of the application of such deductibles shall be apportioned among the parties except for the City as follows: if there is more than one claimant for a single occurrence, then each claimant shall pay a pro-rata share of the per occurrence deductible based upon the percentage of their paid claim to the total paid for insured. The City shall be entitled to 100% of its loss. You shall pay the City any portion of that loss not covered because of a deductible at the same time the proceeds of the insurance are paid to the City as trustee.
5. Any insured, other than the City, making claim to which a deductible applies shall be responsible for 100% of the loss not insured because of the deductible. Except as provided for under California law, the policy or policies shall provide that the City is entitled to 30 Days prior written notice (10 Days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

7-3.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this Contract as described herein shall be carried only by responsible insurance companies with a rating of, or equivalent to, at least "A-, VI" by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

7-3.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers shall be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

7-3.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal

documentation prior to expiration of this insurance. Each required document shall be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

7-3.5 Policy Endorsements.

7-3.5.1 Commercial General Liability Insurance.

7-3.5.1.1 Additional Insured.

1. You shall provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
2. To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
3. The additional insured coverage for projects for which the Engineer's Estimate is \$1,000,000 or more shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products,
 - c) your Work, e.g., your completed operations performed by you or on your behalf, or
 - d) premises owned, leased, controlled, or used by you.
4. The additional insured coverage for projects for which the Engineer's Estimate is less than \$1,000,000 shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products, or
 - c) premises owned, leased, controlled, or used by you.

7-3.5.1.2 Primary and Non-Contributory Coverage. The policy shall be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it shall provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives shall be in excess of your insurance and shall not contribute to it.

7-3.5.1.3 Project General Aggregate Limit. The policy or policies shall be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the

Work. Only claims payments which arise from the Work shall reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit shall be in addition to the aggregate limit provided for the products-completed operations hazard.

7-3.5.2 Commercial Automobile Liability Insurance.

7-3.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form or equivalent form providing coverage at least as broad, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

7-3.5.5 Builders Risk Endorsements.

7-3.5.5.1 Waiver of Subrogation. The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

7-3.5.5.2 Builders Risk – Partial Utilization. If the City desires to occupy or use a portion or portions of the Work prior to Acceptance in accordance with this Contract, the City will notify you and you shall immediately notify your Builder's Risk insurer and obtain an endorsement that the policy or policies shall not be cancelled or lapse on account of any such partial use or occupancy. You shall obtain the endorsement prior to the City's occupation and use.

7-3.6 Deductibles and Self-Insured Retentions. You shall pay for all deductibles and self-insured retentions. You shall disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

7-3.7 Reservation of Rights. The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this Contract.

7-3.8 Notice of Changes to Insurance. You shall notify the City 30 Days prior to any material change to the policies of insurance provided under this Contract.

7-3.9 Excess Insurance. Policies providing excess coverage shall follow the form of the primary policy or policies e.g., all endorsements.

7-3.10 Architects and Engineers Professional Insurance (Errors and Omissions Insurance).

1. For Contracts with required engineering services (e.g., Design-Build, preparation of engineered Traffic Control Plans (TCP), and etc.) by you, you shall keep or require all of your employees or Subcontractors, who provide professional engineering services under this contract, Professional Liability coverage with a limit of **\$1,000,000** per claim and **\$2,000,000** annual aggregate in full force and effect.
2. You shall ensure the following:
 - a) The policy retroactive date is on or before the date of commencement of the Project.
 - b) The policy will be maintained in force for a period of 3 years after completion of the Project or termination of this Contract, whichever occurs last. You agree that for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.
3. If professional engineering services are to be provided solely by the Subcontractor, you shall:
 - a) Certify this to the City in writing and
 - b) Agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth above.

7-4 NOT USED. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

7-4 WORKERS' COMPENSATION INSURANCE AND EMPLOYERS LIABILITY INSURANCE.

1. In accordance with the provisions of §3700 of the California Labor Code, you shall provide at your expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.
2. Limits for this insurance shall be not less than the following:

<u>Workers' Compensation</u>	<u>Statutory Employers Liability</u>
Bodily Injury by Accident	\$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 each employee
Bodily Injury by Disease	\$1,000,000 policy limit

3. By signing and returning the Contract you certify that you are aware of the provisions of §3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you shall comply with such provisions before commencing the Work as required by §1861 of the California Labor Code.

7-4.1 Waiver of Subrogation. The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

ADD:

7-6 THE CONTRACTORS REPRESENTATIVE. To the "GREENBOOK", ADD the following:

1. Both the representative and alternative representative shall be employees of the Contractor and shall not be assigned to a Subcontractor unless otherwise approved by the City in writing.

7-8.6 Water Pollution Control. To the "WHITEBOOK", ADD the following:

6. Based on a preliminary assessment by the City, this Contract is subject to **WPCP**.

7-13.4 Contractor Standards and Pledge of Compliance. To the "WHITEBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. The Contract is subject to City's Municipal Code §22.3004 as amended 10/29/13 by ordinance O-20316.
2. You shall complete a Pledge of Compliance attesting under penalty of perjury that you complied with the requirements of this section.
3. You shall ensure that all Subcontractors complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section.
4. You shall require in each subcontract that the Subcontractor shall abide by the provisions of the City's Municipal Code §22.3004. A sample provision is as follows:

"Compliance with San Diego Municipal Code §22.3004: The Subcontractor acknowledges that it is familiar with the requirements of San Diego Municipal Code §22.3004 ("Contractor Standards"), and agrees to comply with requirements of that section. The Subcontractor further agrees to complete the Pledge of Compliance, incorporated herein by reference."

ADD:

7-13.8 Equal Pay Ordinance.

1. You shall comply with the Equal Pay Ordinance (EPO) codified in the San Diego Municipal Code (SDMC) in section 22.4801 through 22.4809, unless compliance is not required based on an exception listed in SDMC section 22.4804.
2. You shall require all of your Subcontractors to certify compliance with the EPO in their written subcontracts.
3. You shall post a notice informing your employees of their rights under the EPO in the workplace or job site.
4. By signing this Contract with the City of San Diego, you acknowledge the EPO requirements and pledge ongoing compliance with the requirements of SDMC Division 48, section 22.4801 et seq., throughout the duration of this Contract.

ADD:

7-20 ELECTRONIC COMMUNICATION. To the "WHITEBOOK", ADD the following:

1. Virtual Project Manager shall be used on this Contract.

7-21.1 General. To the "WHITEBOOK", item 3, DELETE in its entirety and SUBSTITUTE with the following:

1. During the construction phase of projects, the minimum waste management reduction goal is 90% of the inert material (a material not subject to decomposition such as concrete, asphalt, brick, rock, block, dirt, metal, glass, and etc.) and 65% of the remaining project waste. You shall provide appropriate documentation, including a Waste Management Form attached as an appendix, and evidence of recycling and reuse of materials to meet the waste reduction goals specified.

SECTION 9 – MEASUREMENT AND PAYMENT

9-3.1 GENERAL. To the "GREENBOOK", ADD the following:

The lump sum amount for bid item "Construction of Park Improvements" includes improvements and facilities per Plans numbered 40052-01-D through 40052-32-D, inclusive, and these specifications, including but not limited to site demolition, hardscape, ADA ramps, retaining wall at ADA ramp, parking area paving, striping and signage, site furnishings, children's play areas, drainage, landscaping, irrigation, backflow preventer, security lighting, prefabricated picnic shelter (separate permit) and interior accessibility improvements for restroom in recreation center building

including demolition, concrete, plumbing, openings, restroom furnishings, finishes, signage and electrical.

SECTION 200 – ROCK MATERIALS

ADD:

200-1.8 Decorative Boulders.

200-1.8.1 General. Decorative boulders shall be of the type and size designated on the plans and as specified in the Special Provisions.

200-1.8.2 Products.

1. Boulders shall be “Navajo” by Southwest Boulder and Stone, or approved equal, ranging from 18”-36” length and width and no more than 18” in height.
2. Boulders shall be locally available. Submit photos of selected boulders tagged in the stone supply yard for review and approval by the Landscape Architect or City’s Representative.
3. Boulder Sources include the following, or approved equal:

Southwest Boulder
RAINBOW
5002 2nd. Street
Fallbrook, CA 92028
Phone: (760) 451-3333

Southwest Boulder
SAN DIEGO (Pacific Beach)
4770 Santa Fe Street
San Diego, CA 92109
Phone: (619) 331-3120

200-2.7 Disintegrated Granite. To the “GREENBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

200-2.7.1 Summary. This Section includes material and labor requirements for construction with decomposed granite or crushed 3/8” minus or 1/4” minus aggregate pathway with Stabilizer Binder additive, or approved equal, for the following items:

1. Stabilized Decomposed Granite

200-2.7.2 Basis of Design. The decomposed granite stabilizer product to be used is based on product testing results prepared by the manufacturer and or supplier of the stabilized decomposed granite product.

1. When products are identified by manufacturer name with no additional notation, the use of that manufacturer name and product name is not intended to limit the selection of equal products by other manufacturers. However, use of equal products by other manufacturers is subject to the requirements of Section 4 "Control of Materials."

200-2.7.3 Performance Requirements. Perform gradation of decomposed granite material or 3/8" minus or 1/4" minus crushed aggregate in accordance with ASTM C 136 – Method for Sieve Analysis for Fine and Course Aggregates.

200-2.7.4 Submittals. Products Data: For each product specified. Submit a 5 lb. sample and sieve analysis for grading of decomposed granite or crushed 3/8" minus or 1/4" minus aggregate prior to any construction. Must be approved by Resident Engineer.

1. Shop Drawings: Show details of installation, including plans and sections.

200-2.7.5 Project/Site Conditions. Field Measurements: Each bidder is encouraged to visit the site of the Work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.

1. Where surfacing is indicated to fit with other construction, verify dimensions of other construction by field measurements before proceeding with the work.
2. Environmental Limitations: Do not install Stabilized Decomposed Granite during rainy conditions or below 40 degrees Fahrenheit and falling.

200-2.7.6 Quality Assurance.

1. Installer Qualifications: Installer to provide evidence to indicate successful experience in providing Stabilized Decomposed Granite.
2. Mock-ups: Install 4 ft. wide x 10 ft. long mock-up of decomposed granite or 3/8" minus or 1/4" minus crushed aggregate surfacing with Stabilizer binder additive, or approved equal, at location specified by Resident Engineer.
3. Compaction testing to be provided by contractor, one test per 1,000 square feet of base course.
4. Manufacturer's technical representative shall visit the site at the start of an installation to ensure the installer understands the correct installation methods to use.

200-2.7.7 Warranty.

1. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

2. Special Warranty: Submit a written warranty executed by the installer agreeing to repair or replace components of Stabilized Decomposed Granite that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, the following:
 - a) Premature wear and tear, provided the material is maintained in accordance with manufacturer's written maintenance instructions.
 - b) Failure of system to meet performance requirements.
3. Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.
4. Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs as required.

200-2.7.8 Delivery, Storage, and Handling.

1. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
2. Bulk Materials:
 - a) Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - b) Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - c) Do not move or handle materials when they are wet or frozen.
 - d) Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

200-2.7.9 Manufacturers.

1. Stabilizer Binder, or approved equal, for Stabilized Decomposed Granite surfaces provided by the following manufacturer:
 - a) Stabilizer Solutions, Inc. 33 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email info@stabilizersolutions.com, or approved equal.
2. Decomposed Granite shall be "California Gold", or approved equal, provided by the following manufacturer:

- a) Southwest Boulder : RAINBOW, 5002 2nd. Street, Fallbrook, CA 92028, Phone: (760) 451-3333 or SAN DIEGO (Pacific Beach), 4770 Santa Fe Street, San Diego, CA 92109 Phone: (619) 331-3120, website: <https://www.southwestboulder.com/> or approved equal.

200-2.7.10 Materials.

1. Decomposed Granite or 3/8" minus or 1/4" minus crushed aggregate screenings.

- a) Sand and crushed stone shall consist of inert materials that are hard and durable, with stone free from surface coatings and deleterious materials. Gradation requirements shall be as follows:

Crushed Stone Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve AASHTO T11-82 and T2782.

1/4" MINUS AGGREGATE GRADATION

U.S. Sieve No.	Percent Passing by Weight
# 3/8"	100
# 4	90 – 100
# 8	75 – 80
# 16	55 – 65
# 30	40 – 50
# 50	25 – 35
# 100	15 – 20
# 200 to	10 – 15

2. Stabilizer Binder, or approved equal.
 - a) Non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" or 1/4" minus aggregate.
 - b) Product to have 64% pre-consumer recycled content.
 - c) Product shall have 25 years experience at same formulation.

200-2.7.11 Excess Materials.

1. Provide Resident Engineer with the following excess materials for use in future Stabilized Decomposed Granite repair: 25, 50 lb. Bags of the Stabilized Decomposed Granite blended with proper amount of Stabilizer Binder, or approved equal.

SECTION 201 – CONCRETE, MORTAR, AND RELATED MATERIALS

201-1.2.1 Cement. To the “WHITEBOOK,” to Paragraph (1.), ADD the following:

Type V cement shall be used for concrete in contact with soil, so that the water to cement ratio does not exceed 0.45, and that the minimum 28-day compressive strength be 4,500 pounds per square inch (psi).

201-1.1.6.2 Materials. To the “GREENBOOK,” To Paragraph (a.) DELETE in its entirety and SUBSTITUTE with the following:

a) Type V Portland cement

SECTION 217 – BEDDING AND BACKFILL MATERIALS

217-2.2 Stones, Boulders, and Broken Concrete. To the “GREENBOOK”, Table 217-2.2, DELETE in its entirety and SUBSTITUTE with the following:

TABLE 217-2.2

Zone	Zone Limits	Maximum Size (greatest dimension)	Backfill Requirements in Addition to 217-2.1
Street or Surface Zone	From ground surface to 12" (300 mm) below pavement subgrade or ground surface	2.5" (63 mm)	As required by the Plans or Special Provisions.
Street or Surface Zone Backfill of Tunnels beneath Concrete Flatwork		Sand	Sand equivalent of not less than 30.
Trench Zone	From 12" (300 mm) below pavement subgrade or ground surface to 12" (300 mm) above top of pipe or box	6" (150 mm)	
Deep Trench Zone (Trenches 3' (0.9 m) wide or wider)	From 60" (1.5 m) below finished surface to 12" (300 mm) above top of pipe or box	Rocks up to 12" (300 mm) excavated from trench may be placed as backfill	
Pipe Zone	From 12" (300 mm) above top of pipe or box to 6" (150 mm) below bottom of pipe or box exterior	2.5" (63 mm)	Sand equivalent of not less than 30 or a coefficient of permeability greater than 1-½ inches/hour (35 mm per hour).

Zone	Zone Limits	Maximum Size (greatest dimension)	Backfill Requirements in Addition to 217-2.1
Overexcavation	Backfill more than 6" (150 mm) below bottom of pipe or box exterior	6" (150 mm)	Sand equivalent of not less than 30 or a coefficient of permeability greater than 1-½ inches/hour (35 mm per hour). Trench backfill slurry (100-E-100) per 201-1 may also be used.

ADD:

SECTION 219 – SITE FURNISHINGS

219-1 MATERIALS.

219-1.1 General. Site furnishings shall be of the type and model as designated by the plans and specified in the Special Provisions. This section includes the following:

1. Benches
2. Trash and Recycling Receptacles
3. Drinking Fountain
4. Picnic Tables
5. Picnic Shelter
6. Metal BBQ

219-1.1.1 Bench with Back

Product: Modern Bench
Model#: 419SKB
Description: Precast concrete bench with back, center armrests and anti-skate deterrents (1 piece)
Integral Color: Natural Grey
Finish: Light Sandblast
No. of units: (2)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219.1.1.2 Backless Bench

Product: Flat Bench with armrest
Model#: 417SK2B

Description: Precast concrete bench with center armrest and anti-skate deterrents on both sides (1 piece)
Integral Color: Natural Grey
Finish: Light Sandblast
No. of units: (2)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219-1.1.3 Trash Receptacle

Product: Concrete Waste Receptacle
Model#: 508
Description: Precast square concrete receptacle with locking steel door
Integral Color: Natural Grey
Finish: Light Sandblast
Door: Side opening, steel door, powder coated bronze with lockable hatch handle
No. of units: (2)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219-1.1.4 Recycling Receptacle

Product: Concrete Recycling Receptacle
Model#: 508
Description: Precast square concrete receptacle with locking steel door
Integral Color: Natural Grey
Finish: Light Sandblast
Door: Side opening, steel door, powder coated "Recycle Blue" with lockable hatch handle
No. of units: (2)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219-1.1.5 Drinking Fountain

Product: Barrier-free stainless-steel pedestal fountain
Model#: 3500D
Description: Barrier-free stainless-steel pedestal fountain
Color: Silver
Finish: Powdercoat
No. of units: (1)
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, mounting plate with galvanized steel anchors, provided by manufacturer
Manufacturer: Haws Corporation or approved equal

219-1.1.6 Picnic Table

Product: Concrete Picnic Table
Model#: 100S
Description: Precast concrete picnic table (1 piece)
Integral Color: Natural Grey
Finish: Light Sandblast
No. of units: (2)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219-1.1.7 Picnic Table-ADA

Product: Concrete Picnic Table w/ Right Side ADA Access
Model#: 100SRE
Description: Precast concrete picnic table with right side wheelchair access (1 piece)
Integral Color: Natural Grey
Finish: Light Sandblast
No. of units: (1)
Concrete Mix: Mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5,000 psi.
Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
Attachment: Surface-mounted, epoxy in place
Manufacturer: Outdoor Creations or approved equal

219-1.1.8 Picnic Shelter

Product: Poligon Ramada
Model#: RAMADA 16x34
Description: Poligon Ramada, rectangular shelter with hip metal roof

Color: Regal blue roof, ash grey posts
 Finish: Galvalume coated, Kynar 500 painted roof, powder coated posts
 No. of units: (1)
 Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
 Manufacturer: Porter Corp. or approved equal

Picnic shelter requires a separate permit. Do not pour footings or install anchor bolts without job-specific footing and anchor design drawings from manufacturer.

219-1.1.9 Metal Barbeque

Product: ADA barbeque with ash storage
 Model#: ADA-ASH800
 Description: Barbecue with ash storage, preparation shelf, and ADA grill
 Color: Black
 Finish: Painted with paint to be provided by manufacturer
 Door: Side opening, secured with padlock
 No. of units: (1)
 Anti-Graffiti: Per White Book, Section 210.1.1.1, Anti-Graffiti Coating
 Attachment: Surface-mounted, install (4) 6"x1/2" 304 stainless steel wedge anchors
 Manufacturer: Maintenance Reduction Solutions or approved equal

219-1.2 Project Conditions. Verify actual locations of slabs, walls, and other construction contiguous with site furnishings by field measurements before fabrication and indicate measurements on Shop Drawings.

1. Established Dimensions: Coordinate wall and other contiguous construction to ensure that actual dimensions correspond to established dimensions.
2. Provide allowance for minor adjustment and fitting at site.

219-1.3 Coordination. Coordinate installation of anchorages for site furnishings where required. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete. Deliver such items to Project site in time for installation.

219-2 PRODUCTS.

219-2.1 Fabrication.

1. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.
2. Welded Connections: At exposed connections, finish surfaces smooth and blended so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.

3. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.
4. Preservative-Treated Wood Components: Complete fabrication of treated items before treatment if possible. If cut after treatment, apply field treatment complying with AWP M4 to cut surfaces.
5. Exposed Surfaces: Polished, sanded, or otherwise finished; all surfaces smooth, free of burrs, barbs, splinters, and sharpness; all edges and ends rolled, rounded, or capped.
6. Factory Assembly: Assemble components in the factory to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

ADD:

SECTION 220 – PLAY EQUIPMENT

220-1 GENERAL. Play equipment shall be of the type, model, and colors as designated by the plans and specified in the Special Provisions, manufactured by Landscape Structures, Inc., or approved equal.

Shop drawings which show complete details shall be furnished as per Section 2-5.3 Submittals. Contractor shall have the manufacturer review the play area plans and mark in ink the minimum dimensions allowed between pieces of play equipment, and between curbs, walls, etc. Any discrepancies noted shall be brought to the attention of the Resident Engineer immediately.

No playground equipment or apparatus or foundations for same shall be placed until location stakes have been verified by the Resident Engineer at a regularly scheduled project meeting.

220-2 PRODUCTS. Play equipment shall be of the type and model as shown on the plans, or approved equal.

220-3 WARRANTY.

100-Year Limited Warranty

On all aluminum posts, stainless steel fasteners, clamps, beams and caps against structural failure due to corrosion/natural deterioration or manufacturing defects, and on steel posts against structural failure due to material or manufacturing defects.

15-Year Limited Warranty

On all steel arches, all plastic components (including TuffTimbers edging or approved equal), all aluminum and steel components not covered in 100-year warranty, Mobius climbers, Rhapsody Outdoor Musical Instruments, decks and TenderTuff or approved equal coatings (except Wiggle Ladders, Chain Ladders and Swing Chain) against structural failure due to material or manufacturing defects.

10-Year Limited Warranty

On concrete products against structural failure due to natural deterioration or manufacturing defects. Does not cover minor chips, hairline cracks or efflorescence.

8-Year Limited Warranty

On climbers and climbing cables against defects in materials or manufacturing defects.

5-Year Limited Warranty

On cables and mallets against defects in materials or manufacturing defects.

3-Year Limited Warranty

On all other parts, (as example: Pulse products, all swing seats and hangers, Mobius climber handholds, Wiggle Ladders, Chain Ladders and ProGuard Swing Chain, Track Ride trolleys and bumpers, all rocking equipment including Sway Fun gliders, belting material, HealthBeat resistance mechanism, Seesaws, etc.), against failure due to corrosion/natural deterioration or manufacturing defects.

This warranty does not include any cosmetic issues or wear and tear from normal use. It is valid only if the play structures and/or equipment are erected to conform with manufacture installation instructions and maintained according to the maintenance procedures furnished by manufacturer.

ADD:

SECTION 221 RUBBERIZED PLAY SURFACING

221-1 GENERAL.

Rubberized Play Surfacing shall be of the type and color as designated by the plans and specified in the Special Provisions, or approved equal.

221-1.1 Rubberized Play Surfacing

Playground rubberized play surfacing shall be Robertson Industries, Inc., "Tot Turf Supreme" Poured in-Place Playground Surfacing, or approved equal. Poured in place

rubber playground surfacing shall consist of a polyurethane binder mixed with 100% recycled, shredded tire buffings which will make up the Cushion Layer. The Cushion Layer is capped with TPV (Thermal Plastic Vulcanized) granules mixed with an Aliphatic binder creating the Wear Course. Percolation rate shall be a minimum of 12" per minute.

The surfacing shall comply with ADA and CPSC guidelines as well as ASTM Standards. Surfacing shall be certified by IPEMA, a third-party testing organization for playground surfaces and equipment.

221-1.2 Performance Requirements

1. Area Safety: Poured in place rubber playground surfacing within playground equipment use zones shall meet or exceed the performance requirements of the CPSC, ADA and Fall Height Test ASTM F1292-13. The surface must yield both a peak deceleration of no more than 200 G-max and a Head Injury Criteria (HIC) value of no more than 1,000 for a head-first fall from the highest accessible portion of play equipment being installed as shown on drawings. IPEMA certification is required. (ASTM F1292-13 section 4.3.3: The laboratory test used to determine critical fall height shall have been conducted on surfacing material samples identical in design, materials, components, and thickness and manufactured as the installed playground surface).
2. Accessibility: NOTE: Children's outdoor play areas shall be in compliance with the Uniform Federal Accessibility Standards 9UFAS) FED-STD-795 and the Architectural and Engineer Instructions (9AEI) Design Criteria. The requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) 28 CFR Part 36 that provide equal or greater accessibility than the requirements of UFAS must also be met in children's outdoor play areas.
3. Poured in place surfaces intended to serve as accessible paths of travel for persons with disabilities shall be firm, stable, and slip resistant, and shall meet the requirements of ASTM F195-14 and ASTM F1292-13.
4. Applicable Standards - ASTM International:
 - a) ASTM C1028 Standard Test Method for Determining the Static Coefficient of friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull Meter Method – This standard replaces ASTM D2047.
 - b) ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers – Tension.
 - c) ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
 - d) ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.

- e) ASTM E303 Standard Test Method for Measuring Surface Frictional Properties using the British Pendulum Tester.
 - f) ASTM F1292 Standard Specification for Impact Attenuation of Surfacing Materials within the Use Zone of Playground Equipment.
 - g) ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems under and around Playground Equipment.
 - h) ASTM F2479-12 Standard Specification for Purchase, Installation and Maintenance.
5. TPV material shall be angular granules with a (Shore A) hardness of 65°A ±5 and a particle size between .5-1.5 mm. Binder shall be not less than 15% percent of the total weight of TPV material used in the wear surface, and shall provide 100% percent coating of the particles. No other granule sizes are acceptable.
 6. Third part test results of tensile strength equal to or greater than 170psi and elongation yield equal to or greater than 80% percent.
 7. Poured in place surfaces shall be manufactured and installed by trained company employees or certified installers who have successfully completed the "Certified Installers Training Program" from manufacturer. Only Aliphatic urethane is to be used in wear course.
 8. Poured in place surfacing shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship and materials for a limited Seven (7) year period or as specified and agreed upon per alternate contract. Warranty will be specific to maintenance requirements and performance standards of completed product.
 9. Submittals: The Following submittals shall be provided by the Contractor to the City for review and approval:
 - a) One original hard copy of the submittal package. Additional hard copies available by request.
 - b) Manufacturer's descriptive data and installation instructions.
 - c) Manufacturer's details showing depths of Wear Course and sub-base materials, anchoring systems and edge details.
 - d) A signed statement by an authorized official certifying that the surfacing system meets the requirements of ASTM F1292-13 for a head-first fall from the highest accessible portion of the specified playground equipment.
 - e) A signed statement from the manufacturer of the poured in place surfacing attesting that all materials under this section shall be installed only by the Manufacturer's Trained Installers.

- f) Upon request, samples of the proposed material for this project.
- g) IPEMA certification.

221-2. PRODUCTS

Safety Surfacing shall consist of both recycled and synthetic materials meeting the requirements of this specification.

Product Scope

1. Poured in place surface shall consist of a uniform material manufactured in such a way that the Wear Course meets the requirements specified herein for wear surface.
2. The type safety surfacing shall be a poured-in-place system and shall be indicated on the drawings.

221-2.1 Cushion Layer Section

1. Impact Attenuating Cushion Layer: Cushion Layer consists of shredded styrene butadiene rubber (SBR) and/or cryogenic crumb rubber and adhered with a 100% percent solids polyurethane binder to form a resilient porous material.
2. Strands of SBR may vary from 0.5 mm – 2.0 mm in thickness by 3.0 mm – 20 mm in length. Cushion material may have a 50% SBR Cryogenic Crumb Rubber (5-9 mesh) using a sieve analysis ASTM D5644 and a fiber content of .1% or less mixed in.
3. Foam or standard rubber granules are not to be permitted in a Cushion Layer.
4. Binder shall be between 10-14% percent of the total weight of the material, and shall provide 100% percent coating of the particles.
5. The Cushion Layer shall be compatible with the Wear Course and must meet requirements herein for impact attenuation.

221-2.2 Wear Course

1. Wear Course shall consist of Thermal Plastic Vulcanized (TPV) granules with an Aliphatic binder formulated to produce an even, uniform, seamless surface up to 2000 square feet.
2. TPV material shall be angular granules with a (Shore A) hardness of 65°A ±5 and particle size between .5-1.5 mm. Binder shall be 22-24% percent of the total weight of TPV material used in the wear surface, and shall provide 100% percent coating of the particles. No other granule sizes are acceptable.

3. Thickness of the Wear Course shall be ½" – 5/8" inch (minimum ½" inch, 12.7mm).
4. The Wear Course shall be porous.

221-2.3 Binder

1. No Toluene Diphenyl Isocyanate (TDI) shall be used. Aliphatic urethane is to be used.
2. No filler materials shall be used in urethane such as plasticizers, and the catalyzing agent shall contain no heavy metals.
3. Weight of polyurethane shall be no less than 8.5 lbs/gal (1.02 Kg/1) and no more than 9.5 lbs/gal (1.14 Kg/1).
4. Manufacturer is permitted to modify the type of urethane required to match extreme weather conditions. Substitutions must be equal to or exceed Aliphatic quality.

221-2.5 Materials

A. Wear Course – TotTurf Supreme TPV Granules, or approved equal

Manufacturer: Rosehill Polymers
 As Distributed by: Robertson Industries Inc.
 (800)858-0519
 Location Used: Playground Area

B. Cushion Layer – TotTurf Shredded SBR and/or Cryogenic Crumb Mixture, or approved equal

As Distributed by: Robertson Industries Inc.
 (800)858-0519
 Location Used: Playground Area

C. Binder – VORAMER MR Products, or approved equal

Manufacturer: DOW Chemical
 As Distributed by: Robertson Industries Inc.
 (800)858-0519
 Location Used: Playground Area

D. Binder – Aliphatic Urethane Premium, Non-Ambering, or approved equal

Manufacturer: Accella Polyurethane Systems
 As Distributed by: Robertson Industries Inc.
 (800)858-0519
 Location Used: Playground Area

ADD:

SECTION 222 – ENGINEERED WOOD FIBER

222-1 GENERAL. Engineered Wood Fiber (EWF) shall be of the type and color as designated by the plans and specified in the Special Provisions, or approved equal.

222-1.1 Products.

EWF shall be “Fibar” Engineered Wood Fiber by The Fibar Group, LLC, or approved equal.

222-1.2 Materials.

1. Provide Fibar to a compacted depth of 16”
2. Provide EWF in the areas indicated on the plans. Provide this safety surfacing immediately after installing the playground equipment.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-1.3 Forms. To the “WHITEBOOK”, ADD the following:

303-1.3.1 General.

Formliner for retaining wall at entrance ramp shall be 1/8” Deep 6” O.C. Pine Random Butt by American Formliner, or approved equal. Install per plans.

303-1.3.2 Form Release.

Formliners shall be sprayed with high end form release before each use and within the same day that concrete is placed. Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire formliner surface.

303-1.3.3 Installation.

1. Trimming. Most Thermoform Formliners are shipped in 4’x 10’ sheets. Because of the nature of plastic to expand and contract, it is often necessary for the material to be trimmed. The easiest way to cut plastic is to use a circular hand saw (skill saw) with a fine tooth, plywood blade, such as the type used for cutting fine veneer paneling. A blade with approximately 200 teeth is recommended. If the liner is to be butted against a rustication strip or reveal, the blade angle should be set so that the liner is cut at the same angle as the reveal.
2. Caution: Cutting can create dust and rough edges. The rough edges created by cutting can be dressed with a sander and/or hand planer. Remember to

remove all dust and debris from the surface. Sanding can create dust that might be inhaled. Long term exposure to this dust may be harmful. Workers should wear appropriate safety equipment.

3. Formliners with little relief may be trimmed by scoring with a sharp knife and then breaking off the excess prior to trimming. The effects of temperature must also be considered.
4. Thermal expansion and contraction is another consideration. The size of the liner will expand or contract approximately 1/16" in 10' with each 10° temperature change. Formliner shall be installed at about the same ambient temperature as expected during placement of concrete, early morning is recommended.
5. Caution: Temperatures in excess of 140°F (60°C) will cause permanent damage to the elasticity of the material in both HIPS and ABS formliners. Most plastics degrade when exposed to intense sunlight for extreme periods of time. Formliners shall be stored either indoors or under black polyethylene whenever it is not in use.

303-1.3.4 Attachment to formwork.

1. Before attaching the formliner, first identify the side to be poured against. The side facing the formwork has a smooth, shiny surface; the concrete side has a roughened "hair cell" appearance.
2. Screws or nails should be spaced approximately 6" to 12" on center around the perimeter and 18" to 24" in the center.
3. The recommended method for tilt-up jobs is to use wooden dowels inserted in the casting slab. Drill a 1/8" to 1/4" hole through the formliner and slab and then insert a 1/8" wooden dowel. Secure the slab with roofing nails. The dowels are drilled out and the holes are patched after the job is complete.
4. Double-sided form tape may be used for tilt-up jobs. Make sure the casting slab and formliners are clean of all dust and are dry.

Heavy Duct Tape can be applied to the formliner side. This is the recommended method for pre-cast or tiltup beds. The liner is assembled upside-down and alongside the bed then rolled into formwork.

SECTION 304 –METAL FABRICATION AND CONSTRUCTION

304-5 PAYMENT. To the "WHITEBOOK", REVISE section "**304-5**" to "**304-6**".

SECTION 306 – OPEN TRENCH CONDUIT CONSTRUCTION

306-3.3.4.1 Non-Friable Asbestos Cement Pipe (ACP). To the “WHITEBOOK”, item 2, subsection “i”, DELETE in its entirety and SUBSTITUTE with the following:

- i) A minimum of 5 Working Days prior to the transportation of the ACP disposal bins or friable asbestos waste, you shall provide notice to and assist the Resident Engineer in completing the Inspection Work Request Form for the Asbestos, Lead, and Mold Program. The form is located below:

<https://forms.sandiego.gov/f/gS2064>

306-6.5.1 General. To the “WHITEBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

1. For PVC water pipes:
 - a) Bedding material shall:
 - i. Either be sand, crushed aggregate, or native free-draining granular material.
 - ii. 100% of the bedding material shall pass the no. 4 sieve and shall have an expansion when saturated with water of not more than 0.5%.
 - iii. Have a sand equivalent of SE 50. SE 30 or higher may be substituted for SE 50 as bedding material if all of the following requirements are met:
 - The top of the pipe and haunch areas are mechanically compacted by means of tamping, vibrating roller, or other mechanical tamper.
 - Equipment is of size and type approved by the Engineer.
 - 90% relative compaction or better is achieved.
 - b) When jetting, care shall be exercised to avoid floating of the pipe.
2. PVC sewer pipes shall be bedded in 3/8 inch (9.5 mm) or 1/2 inch (12.5 mm) crushed rock in accordance with 200-1.2, “Crushed Rock and Rock Dust”. Crushed rock for PVC sewer pipes may contain recycled Portland Cement Concrete and shall conform to gradation requirements for 3/8 inch or 1/2 inch nominal size as shown in Table 200-1.2.1 (A).

3. Storm drains and all types of non-PVC sewer mains shall be bedded in 3/4 inch (19 mm) crushed rock in accordance with 200-1.2, "Crushed Rock and Rock Dust". Crushed rock for storm drains may contain recycled Portland Cement Concrete and shall conform to gradation requirements for 3/4 inch nominal size as shown in Table 200-1.2.1 (A). Bedding shall be placed to a depth of 4 inches (101.6 mm) below the outside diameter of the pipe or 1 inch (25.4 mm) below the bell of the pipe, whichever is greater.

306-7.8.2.1 General. To the "WHITEBOOK", item 2, ADD the following:

- a) Specified test pressure for Class 235 pipe shall be 150 psi and is tested at 225 psi.
- b) Specified test pressure for Class 305 pipe shall be 200 psi and is tested at 300 psi.

ADD:

SECTION 318 - DISINTEGRATED GRANITE INSTALLATION

318-1 DISINTEGRATED GRANITE

318-1.1 Preparation.

1. Base shall be 3" compacted layer of California DOT recommended crushed granular road base. Make any corrections necessary to base furnished and installed to bring gravel to the elevations shown on the drawing.
2. Pre-soak base material with water and compact to 95% determined by Test Method ASTM D 1557 prior to installing Stabilized Decomposed Granite. Compaction testing to be provided by project owner, one test per 1,000 square feet of base.
3. Although porous, it is recommended to have proper drainage available to ensure no standing water on surface or adjacent to Stabilized Decomposed Granite, including downspouts when placed under roof overhang and surface drains.
4. Before proceeding with installation, notify Resident Engineer in writing of unsuitable site/base conditions.

318-1.2 Blending Stabilizer.

Stabilizer Binder, or approved equal, shall be thoroughly pre-mixed with aggregate at the rate of 15-lbs of Stabilizer Binder, or approved equal, per 1-ton of aggregate. Drop spreading of Stabilizer Binder, or approved equal, over pre-placed aggregate or mixing by rototilling is not acceptable. Stabilizer Binder shall be mechanically pre-mixed per manufacturer's recommendations using an approved mechanical blending unit to

adequately blend Stabilizer Binder, or approved equal, with aggregate (Bucket blending is not an approved blending apparatus). Always blend Stabilizer Binder, or approved equal, and aggregate DRY.

318-1.3 Placement.

After pre-blending, place Stabilized Decomposed Granite directly on prepared sub-grade. Level to desired grade and cross section. Depth of pathways shall be 4" for heavy foot traffic and light vehicles. DO NOT place on filter fabric.

318-1.4 Watering.

1. Water heavily for full-depth moisture penetration of profile. Water activates Stabilizer Binder, or approved equal. Apply 25 to 45-gallons of water per 1-ton to achieve saturation. Randomly test for depth using a probing device, which reaches full depth.
2. Contractor shall wait a minimum of 6 – 72 hours or until such time that the Stabilized Decomposed Granite is able to accept compaction from a 1 to 5 ton roller without separation, plowing or any other physical compromise of the aggregate.
3. If surface aggregate dries significantly quicker than subsurface material, lightly mist surface before compaction.

318-1.5 Compaction.

1. Compact Stabilized Decomposed Granite to 90% relative compaction by equipment such as; a 2 to 5-ton double drum roller making 3 to 4 passes. Do not begin compaction if pumping or pancaking of the surface occurs. Compaction must be completed within 6 and up to 72 hours after placement DO NOT use a vibratory plate compactor or vibration feature on roller, as vibration separates large aggregate particles. If pumping or pancaking of surface occurs, delay compaction, as the surface is still too wet to roll.
2. Take care in compacting surface when adjacent to planting and irrigation systems, use 8" or 10" hand tamp. Installation of Stabilized Decomposed Granite more than 3" thick shall be installed in lifts. If 4" thick compacted (2) 2" lifts. If 5" thick compacted (2) 2.5" lifts.
3. Lightly spray surface area following compaction. Do not disturb aggregate surface with spray action.

318-1.6 Inspection.

Finished surface shall be smooth, uniform and solid with no evidence of chipping or cracking. Cured and compacted pathway shall be firm throughout profile with no spongy areas. Loose material shall not be present on surface after installation, but may appear after use and according to environmental conditions. Pathway shall

remain stable underneath loose granite on top with a “natural” look. Any significant irregularities in path surface shall be repaired to the uniformity of entire installation.

318-1.7 Protection.

1. Contractor shall furnish and install construction fence around new surface to prevent public access. Fencing shall be maintained in place for a minimum of 12 - 72 hours after completion of installation, or as directed by the Resident Engineer. Drying period may take longer due to weather conditions.
2. Contractor shall notify Resident Engineer that landscape irrigation shall be restricted near Stabilized Decomposed Granite surface until drying period is complete. Standing water on surface and adjacent to path shall be restricted at all times.

318-1.8 Maintenance.

1. Remove debris, such as paper, grass clippings, or organic material by mechanically blowing or hand raking as needed.
2. During first year, minor amounts of loose aggregate may appear on surface (1/16 to 1/4"). If loose aggregate material exceeds ¼", redistribute stabilized decomposed granite to an even ¼" depth over entire surface. Water to 1" depth and compact with power roller of no less than 1000-lbs. Repeat as needed. If cracking occurs, sweep fines into cracks, water thoroughly and hand tamp with an 8" – 10" hand tamp.

318-1.9 Repairs.

1. Excavate damaged area to the depth of the Stabilized Decomposed Granite and square off sidewalls.
2. If area is dry, moisten damaged portion lightly.
3. Pre-blend the dry required amount of Stabilizer Binder, or approved equal, with the proper amount of aggregate in a concrete mixer.
4. Add water to the pre-blended Stabilized Decomposed Granite. Thoroughly moisten mix with 25 to 45 gallons per 1-ton of pre-blended material or to approximately 10% moisture content.
5. Apply moistened pre-blended Stabilized Decomposed Granite to excavated area to finish grade.
6. Compact with an 8" to 10" hand tamp or 250 to 300 pound roller. Keep traffic off areas for 12 to 48 hours after repair has been completed.

ADD:

SECTION 319 – SITE FURNISHINGS INSTALLATION

319-1 SITE FURNISHINGS

319-1.1 Installation.

1. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
2. Post Setting: Set cast-in support posts in concrete footing plumb or at correct angle and aligned and at correct height and spacing.
3. Posts Set into Voids in Concrete: Form or core-drill holes for installing posts in concrete to depth recommended in writing by manufacturer of site furnishings and fill annular space between post and concrete with non-shrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions.

ADD:

SECTION 320 – PLAYGROUND EQUIPMENT INSTALLATION

320-1 PLAYGROUND EQUIPMENT

320-1.1 Installation.

All items shall be installed according to the manufacturer's written instructions which will be furnished with the equipment.

Equivalent methods of fabrication and installation differing from those employed by the manufacturer specified, may be accepted providing all variations are clearly shown on shop drawings or in catalogs which show complete details, and same are approved by the City prior to fabrication or placing order for delivery.

320-1.3 Concrete Foundations.

All equipment specified shall be set in concrete footings which shall be the size recommended in writing on printed matter furnished by the manufacturer or as shown on the drawings. All footings shall be flush with the sub-grade. Contractor shall extend any post or pipe at no additional cost to the City so that the equipment is installed at the Manufacturer's designated elevations. Method of extension shall be equal to or better than Manufacturer's material on equipment being installed. Remove all burrs on welds and paint according to Standard Specification, Section 210-3.5.3.

ADD:

SECTION 321 – RUBBERIZED PLAY SURFACING INSTALLATION

321-1 RUBBERIZED PLAY SURFACING

321-1.1 Installation.

1. Poured in Place Surfacing: Components of the poured in place surfacing shall be mixed on site in a rotating tumbler to ensure components are thoroughly mixed and are in accordance with manufacturer's recommendations. Installation of surfacing shall be seamless up to *2,000 square feet* per day and completely bonded to concrete or sub base. Material shall cover all foundations and fill around all elements penetrating the surface.
2. Cushion Layer: Whenever practical, cushion layer of surfacing material shall be installed in one continuous pour on the same day of up to 2,000 square feet. When a second pour is required, step the seam per detail on plan and fully coat the step of the previous work with polyurethane binder to ensure 100% percent bond with new work. Apply adhesive in small quantities so that new cushion layer can be placed before the adhesive dries.
3. Wear Course: Wear Course must be TPV (Thermoplastic Elastomer Vulcanized) rubber granules. Wear surface shall be bonded to Cushion Layer. If necessary, additional primer will be used between the cushion layer and Wear Course. Apply adhesive to Cushion Layer in small quantities allowing the Wear Course to be applied before adhesive dries. Surface shall be hand troweled to a smooth, even finish. Except where the Wear Course is composed of differing color patterns, pour shall be continuous and seamless up to 2,000 square feet per day; (Contact sales representative for seamless installations in excess of 2000 square feet). Where seams are required due to color change, size or adverse weather, a step configuration will be constructed to maintain Wear Course integrity. The edge of initial pour shall be coated with adhesive and wearing surface mixture shall be immediately applied. Pads with multiple seams are encouraged to include a top coat of urethane before being placed into use. Butt joint seams are not acceptable except for repairs. Under special conditions and with owners written approval seams may be permitted in same color pad. Consult with manufacturer for specific applications.
4. Perimeter: When connecting to a concrete curb or border, the inside vertical edge shall be primed with adhesive and the final 2" inches of the cushion layer shall be tapered to allow the wear surface material to be 1.5" inches – 2" inches thick where it joins the concrete edge.
5. Thickness: Construction methods, such as the use of measured screeds or guides shall be employed to ensure that full depth or specified surfacing material is installed. Surfacing system thickness throughout the playground

equipment use zone shall be as required to meet the impact attenuation requirements specified herein.

6. Clean up: Manufacturer's installers shall work to minimize excessive adhesive on adjacent surfaces or play equipment. Spills of excess adhesive shall be promptly cleaned.
7. Protection: The safety surface shall be allowed to fully cure in accordance with Manufacturer's instructions. The surface shall be protected by you from all traffic during the curing period of 48 hours or as instructed by the Manufacturer.
8. Manufacturer's Services: For poured in place safety surfacing, a manufacturer's representative who is experienced in the installation of playground safety surfacing shall be provided. The representative shall supervise the installation to ensure that the system meets the impact attenuation requirements as specified herein.
9. Delivery, Storage and Handling: Materials and equipment shall be delivered and stored in accordance with the manufacturer's recommendations.
10. Poured in place surfacing must be installed on a dry sub-surface, with no prospect of rain within the initial drying period, and within the recommended temperature range of the manufacturer. Installation in weather conditions of extreme heat, or less than 55°F, and/or high humidity may affect cure time and the structural integrity of the final product. Immediate surroundings of the site must be reasonably free of dust conditions as this could affect the final surface appearance. The manufacturer's Service Center Manager reserves the right to control the installation based on such factors without penalty to the company.
11. Poured in place surfacing shall be installed after all playground equipment, shade structures, signs and any other items within the surfacing area. Surface installation coordinated by the manufacturer's representative.

ADD:

SECTION 322 – ENGINEERED WOOD FIBER INSTALLATION

322-1 ENGINEERED WOOD FIBER

322-1.1 Quality Control and Testing.

1. Surfacing shall be IPEMA-CERTIFIED Engineered Wood Fiber. Standard wood chips or bark mulch will not be acceptable.
2. Test results shall be provided for Engineered Wood Fiber for impact attenuation in accordance with ASTM F 1292 *Standard Specification for Impact*

Attenuation of Surface Systems Under and Around Playground Equipment. Results must be provided for new and for 12-year-old Engineered Wood Fiber material.

3. Testing of Engineered Wood Fiber in accordance with **ASTM F 1292** must show G-max values of less than 155G for the 8" thick system, or 120G for the 12" system at 12' drop heights, and HIC values of less than 1,000 for both new and 12-year-old material.
4. Test results shall be provided for the Engineered Wood Fiber in accordance with **ASTM F 2075** *Specification for Engineered Wood Fiber For Use as a Playground Safety Surface Under and Around Playground Equipment*.
5. Test results shall be provided in accordance with **ASTM F 1951**, *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*.

322-1.2 Installation.

1. Install the Fibar Engineered Wood Fiber in accordance with manufacturer's instructions.
2. Avoid contamination of the Fibar Engineered Wood Fiber with sand, gravel, mud, or native soil.

SECTION 600 - ACCESS

ADD:

600-1 GENERAL. To the "WHITEBOOK", item 5, DELETE in its entirety and SUBSTITUTE with the following:

5. If the City's crews are unable to provide the citizens with the mandated services due to your failure to comply with these specifications, you shall collect trash, recyclables, and yard waste on the City's schedule and deliver to the City's designated locations. If you fail to perform this Work, you shall incur additional costs for the City to reschedule pick up of an area.

SECTION 800 - MATERIALS

800-1.2.4 Organic Soil Amendment. To the "GREENBOOK", ADD the following:

Type 4 organic soil amendment (compost) shall be derived from Green Material (yard waste and/or food waste) that is composted in accordance with California Code of Regulations, Title 14, Chapter 3 Article 7, 17868.3 (15 Day Process to Further Reduce Pathogens and kill weed and other seeds). Incorporated into the soil, compost improves soil texture; increases both nutrient and water holding capacity; and reduces

the need for commercial fertilizer. Where applicable, Organic Soil Amendment can qualify as a component of LEED certification.

Type 4 organic soil amendment shall come from a compost facility that tests its compost on a quarterly basis and meets the requirements listed in Table 212-1.2.4 (B). You shall provide a copy of the most recent quarterly test results and a current representative sample of the compost to be used on the project to the City prior to approval and the compost being used.

The City of San Diego's Miramar Greenery produces Type 4 organic soil amendment (compost) and complies with the U.S. Composting Council's Seal of Testing Assurance Program. The Miramar Greenery is located within the City's Miramar Landfill at State Hwy. 52 and Convoy St. in San Diego.

<http://www.sandiego.gov/environmental-services/miramar/greenery/>

Table 800-1.2.4 (B)

Test Criteria	Acceptable Range	Unit of Measure	TMCC Test Method
pH	6.0 - 8.0		04.11-A 1:5 Slurry pH
Soluble salts	0 - 10	dS/m (mmhos/cm)	04.10-A 1:5 Slurry Method
Organic Matter	30 - 75%	% dry weight basis	05.07-A Loss-on-ignition Organic Matter Method (LOI)
Stability	≤ 8	mg CO ₂ /g OM/day	05.08-B carbon Dioxide Evolution Rate
Maturity	> 80% emergence	average % of control	05.05-A Germination and vigor
Pathogens			
Fecal coliform	Pass	Pass/Fail per U.S. EPA Class A standard, 40CFR 503.32(a)	07.01-B Fecal coliforms

Test Criteria	Acceptable Range	Unit of Measure	TMCC Test Method
Salmonella	Pass	Pass/Fail per U.S. EPA Class A standard, 40CFR 503.32(a)	07.02 Salmonella
Heavy Metal	Pass	Pass/Fail per U.S. EPA Class A standard, 40CFR 503.13(a) Tables 1 and 3.	04.06-Heavy Metals standards, and Hazardous Elements.
Particle Size	≥ 90%	% dry weight passing through 11mm	02.02-B Sample Sieving for Aggregate Size Classification

800-1.2.5 Mulch. To the “WHITEBOOK”, item 3, subsection “e”, ADD the following:

Type 5 Mulch shall be 2 inches maximum in size.

SECTION 801 – INSTALLATION

801-2.2.1 General. To the “WHITEBOOK”, item 3, REPLACE with the following:

1. Class “C” topsoil shall be scarified and cultivated to a finely divided condition to a depth of 6 inches below finish grade. During this operation, all stones over ½ inches (12.7 mm) in greatest dimension shall be removed.

801-4.1.1 General. To the “WHITEBOOK”, item 6, ADD the following:

For weed control non-chemical herbicides using Fatty acids, Acetic and Citric acids, or Clove, Citrus, Mint and Thyme oil may be employed by Contractor as a last resort. These may include:

1. Fatty acid potassium salts (e.g. Safer’s Superfast Weed and Grass Killer), or approved equal.
2. Acetic and citric acids (e.g. Nature’s Glory Weed and Grass Killer RTU), or approved equal.
3. Clove, citrus, mint and thyme oil (e.g. Matran II, Burnout, Xpress), or approved equal.

801-7.1 Tree Trimming. To the “WHITEBOOK”, ADD the following:

7. All tree trimming on City trees shall be coordinated through the Resident Engineer and City Arborist.
8. This work consists of tree trimming in playground area only.
9. All debris resulting from tree trimming operations shall be removed from the work site on a daily basis.
10. Trimming and shaping of trees shall be as directed by the Resident Engineer and City Arborist and in accordance with the following:
 - a) Follow the shape suggested by the natural growth habits of each tree species.
 - b) Trim to remove dead wood or weak, diseased, insect infested, broken, low, or crossing limbs.
 - c) Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be removed when specifically indicated by the Resident Engineer. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboricultural practices (ANSI A300, part 8) and performed under the supervision of the Resident Engineer.

ADD:

SECTION 803 – TREE PROTECTION

803-1 GENERAL.

803-1.1 Summary

1. Provide preconstruction evaluations.
2. Provide tree protection fencing.
3. Provide protection of root zones and above ground trees.
4. Provide maintenance of existing trees including irrigation during the construction period.
5. Provide maintenance of existing trees including irrigation during the post construction maintenance period.
6. Remove tree protection fencing and other protection from around trees.

7. Clean up and disposal of all excess and surplus material.

803-1.2 Observation of Work.

The Resident Engineer may inspect the work at any time.

803-2 PRODUCTS.

1. Chain link fence: 6 feet tall metal chain link fence set in metal frame panels on movable core drilled concrete blocks of sufficient size to hold the fence erect in areas of existing paving to remain.
2. Tree protection sign: Heavy-duty cardboard signs, 8.5 inches x 11 inches, white colored background with black 2 inch high or larger block letters. The sign shall be attached to the tree protection fence for each tree. The tree protection sign shall read "Tree Protection Area – Keep Out".

803-3 EXECUTION.

803-3.1 Site Examination.

Examine the site, tree, and soil conditions. Notify the Resident Engineer in writing of any conditions that may impact the successful Tree Protections that is the intent of this section.

803-3.2 Protection.

1. Protect the Tree Protection Area at all times from compaction of the soil; damage of any kind to trunks, bark, branches, leaves and roots of all trees; and contamination of the soil, bark or leaves with construction materials, debris, silt, fuels, oils, and any chemicals substance. Notify the Resident Engineer of any spills, compaction or damage and take corrective action immediately using methods approved by the Resident Engineer.
2. The Contractor shall not engage in any construction activity within the Tree Protection Area without the approval of the Resident Engineer including: operating, moving or storing equipment; storing supplies or materials; locating temporary facilities including trailers or portable toilets and shall not permit employees to traverse the area to access adjacent areas of the project or use the area for lunch or any other work breaks.
3. In the event that construction activity is unavoidable within the Tree Protection Area, notify the Resident Engineer and submit a detailed written plan of action for approval. The plan shall include: a statement detailing the reason for the activity including why other areas are not suited; a description of the proposed activity; the time period for the activity, and a list of remedial actions that will reduce the impact on the Tree Protection Area from the activity. Remedial actions shall include but shall not be limited to the following:

- a) In general, demolition and excavation within the drip line of trees and shrubs shall proceed with extreme care either using of hand tools, directional boring and or Air Knife excavation where indicated or with other low impact equipment that will not cause damage to the tree, roots or soil.
- b) When encountered, exposed roots, 1 inches and larger in diameter shall be worked around in a manner that does not break the outer layer of the root surface (bark). These roots shall be covered in Wood Chips and shall be maintained above permanent wilt point at all times. Roots one inch and larger in diameter shall not be cut without the approval of the Resident Engineer. Excavation shall be tunneled under these roots without cutting them. In the areas where roots are encountered, work shall be performed and scheduled to close excavations as quickly as possible over exposed roots.
- c) Tree branches that interfere with the construction may be tied back or pruned to clear only to the point necessary to complete the work. Other branches shall only be removed when specifically indicated by the Resident Engineer. Tying back or trimming of all branches and the cutting of roots shall be in accordance with accepted arboricultural practices (ANSI A300, part 8) and performed under the supervision of the Resident Engineer.

803-3.3 Removal of fencing.

At the end of the construction period or when requested by the Resident Engineer, remove all fencing and any other Tree Protection material.

803-3.4 Damage or loss to existing plants to remain.

Any trees designated to remain and which are damaged by the Contractor shall be replaced in kind by the Contractor at their own expense. Trees shall be replaced with a tree of similar species and of equal size or 6 inch caliper, whichever is less.

EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP) SECTION A – GENERAL REQUIREMENTS

4.1 Nondiscrimination in Contracting Ordinance. To the “WHITEBOOK”, subsection 4.1.1, paragraph (2), sentence (1), DELETE in its entirety and SUBSTITUTE with the following:

You shall not discriminate on the basis of race, gender, gender expression, gender identity, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors, or suppliers.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)