

May 15, 2018

To Whom It May Concern:

The City of LaGrange will receive sealed bids until **2 P.M. EST, Wednesday, June 13, 2018** in the Office of Purchasing, Room 308, City Hall, 200 Ridley Avenue, LaGrange Georgia 30240 **for providing all labor, equipment and materials to construct the LAGRANGE SKATE PLAZA, as shown on the plans and specifications prepared by STANTEC CONSULTING, dated May 15, 2018, in the City of LaGrange and Troup County, Georgia 30240** in accordance with the following conditions and specifications:

1. The City of LaGrange is exempt from sales and excise taxes. All bids shall be free of sales and excise taxes. This does not relieve the contractor from any obligation to pay sales and excise tax to suppliers.
2. The City reserves the right to ask any and/or each bidder to submit a list of similar jobs completed in the LaGrange and surrounding area, to inspect those jobs and to question owners or other knowledgeable individuals about the quality of work or reliability of the contractor
3. The contractor must hold a valid Georgia Utility Contractors License
4. All work shall be done in accordance with the bid documents, specifications and drawings. Bids shall be submitted on the forms supplied in the bid documents.
5. All bids shall be held valid for a period of sixty (60) days after the opening date.
6. A Bid Bond or certified check made out to the City of LaGrange in the amount of 5% of the base bid proposal must accompany the bid. Bid Bonds or certified checks will be returned to unsuccessful bidders within 30 days. The Bid bond or certified check will be returned to the successful bidder when the notice to proceed is issued.
7. Bidders are expected to examine carefully the work sites, the specifications, conditions, etc. before submitting a proposal. The submission of a proposal shall be considered evidence that the bidder has made such examinations and is satisfied as to the conditions to be encountered in performing the work.
8. The City of LaGrange reserves the right to accept or reject any and/or all bids and to accept the bid which City personnel considers the most advantageous to the City. The City further reserves the right to waive informalities and minor irregularities in all bids received in the bidding process.
9. All bidders shall complete and submit with any bid a notarized affidavit (forms attached) in compliance with O.C.G.A. Section 13-10-91 attesting to the Bidder's registration with the Federal work authorization program.
10. **A non-mandatory pre-bid conference is scheduled for 2 P.M. EST, Thursday, May 31, 2018. The meeting will be held at LaGrange City Hall, Third Floor Conference Room, 200 Ridley Avenue, LaGrange, GA 30240. All prospective bidders are encouraged to attend.**

Questions concerning these conditions and specifications should be addressed in writing to Jeremy Andrews, Purchasing Agent at fax number 706-883-2020 or jmandrews@lagrangegeorgia.org. Please copy Leigh Threadgill, Senior Planner at fax number 706-883-2020 or lthreadgill@lagrangegeorgia.org with submitted questions. All questions will be listed and answered by the City of LaGrange and will be posted as addenda on the City of LaGrange website for the benefit of all parties interested in bidding on this project. **No questions will be accepted after 5 P.M. EST, Tuesday, June 5, 2018.**

To avoid being inadvertently opened by City personnel, all bids should be clearly marked **"BID OPENING, LAGRANGE SKATE PLAZA PROJECT, 2 P.M. EST, Wednesday, June 13, 2018."**

Sincerely,

Jeremy Andrews
Purchasing Agent

STANDARD SPECIFICATIONS AND CONTRACT
CITY OF LAGRANGE, GEORGIA
May 2018

SECTION NO. 1

Instructions to Bidders and Special Provisions

SECTION NO. 2

Proposal

SECTION NO. 3

Contract Agreement

SECTION NO. 4

Detail Specifications, Insurance and Bond Forms

SECTION NO. 5

Specialty Contractor Pre-Qual Form

SECTION NO. 6

Specific Skate Park Technical Specifications

1.0 INSTRUCTIONS TO BIDDERS
AND SPECIAL PROVISIONS

1.1 Advertisement for Bids

The City of LaGrange, Georgia invites bids on the proposal form attached herein to furnish necessary labor, materials, and equipment to perform the following work:

PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO CONSTRUCT THE LAGRANGE SKATE PLAZA PROJECT, AS SHOWN ON THE PLANS AND SPECIFICATIONS PREPARED BY STANTEC CONSULTING, DATED MAY 11, 2018, IN THE CITY OF LAGRANGE AND TROUP COUNTY, GEORGIA 30240

Bids will be received by the City at: **200 RIDLEY AVENUE, ROOM 308, OFFICE OF PURCHASING, LAGRANGE, GEORGIA 30240** until:
2 P.M. EST, WEDNESDAY, JUNE 13, 2018.

1.2 Definitions

Where the following terms occur, they shall have the following meanings:

"City" shall mean the City of LaGrange, a Municipal Corporation of Troup County, Georgia and shall include its legally designated agents, and/or representatives, who are party of the first part to the following agreement.

"Specifications" shall mean all sections of this document, including instructions to bidder and special provisions, proposal, contract agreement, performance bond, payment bond, and detail specifications.

"Exhibits" shall mean plats, plots, plans, drawings or lists attached hereto or referred to herein and made part of this document.

"Contractor" shall mean the party of the second part to the following agreement, or the legal authorized representative of such party.

1.4 Work to be Done

The work to be done is to comply fully with the detailed specifications, Section No. 4.

1.5 Material Furnished by City

The City shall furnish no labor, materials or equipment, except as listed below: **The City of LaGrange will furnish labor, materials and equipment for Irrigation, Landscape, Plant Materials, Site Furnishings and Light Fixtures.**

1.6 Time For Completion

The time allowed for completion of all work to be done under this contract shall begin after notification by the City to proceed with the work. The time allowed for this work is:

90 CALENDAR DAYS.

1.7 Site Examination

The bidder is expected to examine the site of the work to be performed and be fully informed of conditions which may affect the work. The owner will not be responsible for the bidder's bid errors and misjudgement nor for failure to obtain any information on local conditions or general laws or regulations pertaining thereto.

1.8 Exhibits

All exhibits may be obtained from the agency preparing them as listed below, and at the fees indicated. Any bidder in doubt of the true meaning of any exhibit may submit in writing a request to the agency preparing the same for an interpretation thereof. **DOWNLOAD OF ELECTRONIC COPY IS FREE. CONTACT CITY OF LaGRANGE EMAIL jandrews@lagrangega.org . DIRECTIONS TO DOWNLOAD THE ELECTRONIC PDF COPY OR CAD DRAWINGS WILL BE PROVIDED UPON REQUEST.**

1.10 Proposal

All proposals shall be made on the proposal forms included herein and shall become a part of these specifications. The proposal shall in all cases, cover the work outlined herein.

1.11 Surety Bonds

Surety bonds attached on the proper forms, duly executed by the Bidder as principal, and having as surety thereon a surety company approved by the City are required as follows:

A bid bond or certified check in an amount equal to **five** percent (**5%**) of the base bid amount. Such certified check or bid bond will be returned to all but the lowest bidder within thirty days after the opening of bids, and to the lowest bidder after the execution of the attached contract.

A performance bond in an amount equal to **one-hundred** percent (**100%**) of the base bid amount, the cost of which shall be included in bid **IF SUCH BID EXCEEDS \$100,000.00.**

A payment bond in an amount equal to **one-hundred** percent (**100%**) of the base bid amount, the cost of which shall be included in bid **IF SUCH BID EXCEEDS \$100,000.00.**

1.12 Right to Reject Bids

The City reserves the right to reject any or all bids and to waive informalities. No bids will be received after the time set for opening proposals. Any conditions, limitations or provisions attached to the Proposal, except as provided herein, will render it informal and may cause its

rejection. Any bidder may withdraw his bid, either personally or by written request, at any time prior to the scheduled closing time for receipt of bids.

1.13 Determination of Low Bid

The Contract will be awarded, if it is awarded, to the lowest responsible, responsive bidder as determined by the City of LaGrange. Elements which will be considered in making this determination may include, but not be limited to, the following:

1. Whether the bidder involved, (a) maintains a permanent place of business; (b) has adequate plant equipment to do the work properly and expeditiously; (c) has a suitable financial status to meet obligations incident to the work, (d) has appropriate technical experience, (e) has the relevant experience on similar projects, (f) has the ability to perform the work within the specified time period, (g) has adequate bonding and insurance capacity and (h) has an acceptable safety record.
2. The City has the right to accept the price bid on any equipment approved by the City as equal to that specified, or on equipment on which a bid is required, as a basis for award of contract.
3. The City has the right to apply any or all of the "Alternates" listed in the Proposal for the purpose of making an award.
4. Whenever a material or article required is specified or shown on the plans by using the name of the proprietary product or of a particular manufacturer or vendor, any material or article which will meet the same design criteria and is equal in function and durability, as determined by the City, will be considered acceptable.

1.14 Working Drawings

The contract price shall include the cost of furnishing all working drawings and supplementary data and the Contractor shall be allowed no extra compensation for furnishing such information.

1.15 Construction Stakes

The Contractor shall provide such stakes, materials, and such labor and assistance as the City may require in laying out work, establishing bench marks, and checking and measuring the work. All construction staking or field engineering shall be performed by a person or persons deemed skilled and qualified by the City to execute this work.

1.16 Access Roads

Streets, roads, and drives used by the Contractor for access to and from the site of his work shall be protected from damage in excess of that caused by the normal traffic of vehicles used for or in connection with construction work. Any such damage done shall be repaired immediately and left in good condition at the end of the construction period. The Contractor shall take measures to prevent soil, mud, or other foreign materials from being tracked onto existing streets or roads.

1.17 Weather Limitations

Due to weather conditions, the City may direct the work to be stopped. Weather days will be added to the time allowed for completion listed in Section 1.6 above.

1.18 Right-of-Way

The necessary land for the construction of the work will be furnished by the City, and a definite area will be allocated to the Contractor for storage of materials and equipment used in the construction of the work. All operation shall be confined to the assigned area.

1.19 Traffic Control

The Contractor shall furnish and install all necessary traffic control devices for the protection of employees, the public, and equipment as required by local, state, or federal regulations. Devices required may include barricades, traffic cones, certified flagmen, warning signs, and lights at night.

1.20 Construction Housing

Should the Contractor so desire, he may use trailers or build structures for housing, tools, machinery and supplies; but they will be permitted only at approved places, and their surroundings shall be maintained at all times in a sanitary and satisfactory manner. On or before the completion of the work, all such facilities shall be removed, together with all rubbish and trash, at the expense of the Contractor.

1.21 Safety Regulations

The performance of work under this contract shall comply with safety regulations prescribed by the City or required by law. Each bidder shall satisfy himself as to the character and extent of such regulations. The successful bidder shall submit to the City a copy of their Substance Abuse Policy.

1.22 Sanitary Regulations

Necessary sanitary conveniences for the use of Contractor employees shall be erected and maintained by the Contractor, in such a manner and at such points as shall be approved by the City. Their use shall be strictly enforced.

1.23 Laws and Regulations

The Contractor shall keep himself fully informed of all laws, ordinances, orders or decrees, and regulations of the Federal, State, City and County Governments in any manner affecting those engaged or employed in the work, or the materials used in the work, or the conduct of the work. If any discrepancy or inconsistency should be discovered in the Specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the City. The Contractor shall at all times observe and comply with all existing and future laws, ordinances, and regulations, and shall protect and indemnify the City against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or by his employees.

1.24 Erosion Control

The Contractor shall comply with all laws and regulations pertaining to erosion control and shall in no event allow water, soil, silt, or other materials to migrate onto other property, public or private, so as to cause damage. All necessary permits shall be obtained prior to starting work.

1.25 Competent Labor

The Contractor shall employ only competent and skilled personnel to do the prescribed work. The Contractor shall have a competent supervisor present at all times when the work is in progress with authority to receive orders and execute the work. The Contractor shall, upon demand from the City, immediately remove any workman whom the City may consider incompetent or undesirable.

1.26 Inspection and Control of the Work

The Contractor shall furnish the City with every reasonable facility for ascertaining whether or not the work performed and materials used are in accordance with the requirements and intent of the Specifications. All materials furnished and work done when not in accordance with the Specifications will be rejected and shall immediately be removed and other work done and materials furnished in accordance therewith. If the Contractor fails to correct the work and materials as above ordered within seven days, then the City may have the right and authority to stop the Contractor and his work at once and supply personnel and material, at the cost and expense of the Contractor, to remove correct said work and materials. Failure to reject any defective work or materials shall not in any way prevent later rejection when such defect is discovered, or obligate the City to final acceptance. All work shall be guaranteed against defects in workmanship or materials for a period of one year from the date of final acceptance by the City.

1.27 Disagreement

Should any disagreement or difference arise as to the estimate, quantities or classifications or as to the meaning of the Specifications, the decisions of the City shall be final and conclusive and binding upon all parties to the contract.

1.28 Cooperation of Contractor

The Contractor shall in every way cooperate with the City and other persons or firms performing work on or near the work herein described. This cooperation shall include scheduling of work for the best interest of all concerned. Any work which requires an interruption of service to existing customers shall be performed at a time determined solely by the City.

1.29 Liquidated Damages

The Contractor shall pay to the City as liquidated damages the sum of FIVE HUNDRED dollars (\$500.00) for each calendar day that he shall be in default of completing the work in this contract within the time limit named in Section 1.6 above.

1.30 Order of Work

The prosecution, order or sequence of the work shall be as provided herein or as approved by the City, which approval, however, shall in no way effect the responsibility of the Contractor.

1.31 Permits and Licenses

Before any work is commenced, all Federal, State, County, and City, or other permits, work orders, or other licenses shall be obtained from the various agencies, private and public, concerned and displayed on the job site as directed.

1.32 Contractor and Subcontractor Insurance

The Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and provided the City with a certificate showing satisfactory proof of carriage of the insurance. The Contractor shall not allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained. The insurance required herein shall provide adequate protection for the Contractor, his subcontractors, and the City against damage claims which may arise from operations under this contract.

(a) Compensation Insurance: The Contractor shall procure and maintain during the life of this contract Workmen's Compensation Insurance for all of the employees to be engaged in work on the project under this contract. In case any class of employees engaged in hazardous work on the project under this contract is not protected under Workmen's Compensation statute, the Contractor shall provide a Workmen's Compensation policy for the protection of such of his employees not otherwise protected. The amount of such insurance shall be per ATTACHED SAMPLE CERTIFICATE OF INSURANCE FOR MAJOR CONTRACTORS.

(b) Public Liability, Property Damage, and Automobile Liability Insurance: The Contractor shall procure and maintain during the life of the contract such Public Liability and Property Damage Insurance and Automobile Liability Insurance as shall protect him from claims for damage for personal injury including accidental death as well as from claims for property damage, which may arise from operations under this contract, whether such operations are by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be **PER ATTACHED SAMPLE CERTIFICATE OF INSURANCE FOR MAJOR CONTRACTORS.**

1.33 Reports, Records and Data

The Contractor and each of his subcontractors shall submit to the City such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the City may request concerning work performed or to be performed under this contract.

1.34 Subcontracting

(a) The Contractor may utilize the services of specialty subcontractors on parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

(b) The Contractor shall not subcontract the complete work, or any major portion thereof, and shall not award any work to any subcontractor without prior written approval of the City, which approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the City may require.

(c) The Contractor shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

(d) Nothing contained in this contract shall create any contractual relation between any subcontractor and the City.

1.35 Mutual Responsibility of Contractors

If, through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the City on account of any damage alleged to have been sustained, the City shall notify the Contractor, who shall indemnify and save harmless the City against any such claim.

1.36 Accident Prevention

Precautions shall be exercised at all times for the protection of all persons and property, and hazardous conditions shall be guarded against or eliminated. The Contractor shall be responsible for all injuries or damages to persons or property, and shall indemnify and save harmless the City from all damages and costs by reason of injury to person or property, resulting from negligence or carelessness in the performance of the work, or from any improper materials used in its construction, or on account of any act or omission of the Contractor, his agents or employees. Payments due under this contract may be retained by the City until all suits or claims for damages shall have been settled to the satisfaction of the City.

1.37 Changes in Work

The estimated quantities of work to be done and materials to be furnished under this contract shown in any of the documents including the Proposal, are given for use in comparing bids and to indicate approximately the total amount of the contract; and the right is especially reserved to increase or decrease them as may be deemed reasonably necessary or desirable by the City.

Should the Contractor encounter during the progress of the work subsurface or latent conditions at the site materially differing from those shown or indicated in the Specifications, or unknown conditions differing materially from those ordinarily encountered in work of the character of this contract, the attention of the City shall be called immediately to such conditions before they are disturbed. The City shall promptly investigate the conditions, and if it finds that they do so materially differ, the contract shall be modified to provide for any increase or decrease of cost or difference in time resulting from such conditions. No changes in work, or claim of payment for such work, shall be made without prior written approval by the City.

The Contractor shall furnish to the City when required an itemized breakdown of the quantities and prices used in computing the value of any change that might be ordered. In figuring changes, instructions for measurement of quantities set forth in the specifications shall be followed.

Charges or credits for the work covered by the approved change shall be determined by one or more of the following methods:

- (a) Unit bid prices stipulated in the Proposal or as subsequently approved, which unit prices shall include allowances for overhead and profit.
- (b) An agreed lump sum.
- (c) The actual cost, by keeping a correct account including all vouchers for labor, materials, equipment ownership or rental costs, utilities, prorata insurance cost, and a fixed fee not to exceed 15 percent of the total for combined overhead and profit.

1.38 Patents

- (a) The Contractor and/or sureties shall hold and save the City and its officers, agents, servants, and employees harmless from liability or claims of infringement of any nature or kind on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract unless otherwise specifically stipulated in the Contract Documents.
- (b) If the Contractor uses any design, device or materials covered by letters, patent or copyright, he shall provide for such use by suitable agreement with the City of such patented or copyrighted design, device or material. It is mutually agreed and understood, that, without exception, the contract prices shall include all royalties or cost arising from the use of such design, device or materials, in any way involved in the work.

1.39 Inspection and Testing of Materials

Unless otherwise specifically provided in the specifications, the inspection and testing of materials and finished articles to be incorporated in the work at the site shall be made by agencies arranged for by the Contractor and approved by the City. The Contractor will pay for all laboratory inspection services as a part of the contract. The Contractor shall furnish and deliver all such extra quantities of materials and items as may be required for testing.

Where the detailed specifications call for certified copies laboratory tests to establish conformance of certain materials with the specifications it shall be the responsibility of the Contractor to assure the delivery of such certifications to the City.

No materials or finished articles shall be incorporated in the work until such materials and finished articles have passed the required tests. The Contractor shall promptly segregate and remove rejected material and finished articles from the site of the work. The testing and approval of materials by an agency approved by the City shall not relieve the Contractor of any of his obligation to fulfill his contract and guarantee of workmanship and materials. The Contractor may, at his option and at his own expense, cause such other tests to be conducted

as he may deem necessary to assure suitability, strength and durability of any material or finished article.

In general, materials and testing of materials shall comply with A.S.T.M. Specifications applicable, except as herein otherwise specified.

1.40 Final Acceptance of Work

(a) Clean-up: The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of underground facilities, ditches and disturbed areas shall be accomplished on a daily basis as work is completed. Finishing, dressing and grassing shall be accomplished immediately thereafter as a continuous operation within each area being constructed with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of run off. Handwork, including raking and smoothing, shall be required to ensure the removal of roots, sticks, rocks, and other debris in order to provide a neat and pleasing appearance. Grassing, when in season, shall immediately follow in order to establish permanent cover at the earliest date. If grassing is not in season, proper erosion control shall be installed and maintained. The City shall be authorized to stop all work by the Contractor when restoration and cleanup are unsatisfactory and to require appropriate remedial measures.

(b) Liens: Final acceptance of the work will not be granted and the retained percentage will not be due or payable until the Contractor has furnished the City proper and satisfactory evidence that all claims for labor and material employed or used in the construction of the work under this contract has been settled, and that no legal claims can be filed against the City for such labor or material.

1.41 Fair Labor Standards

The Contractor shall conform to all applicable "Fair Labor Standards Provisions", which are hereto made a part of this Section by reference.

1.42 Equal Opportunity Clause

During the performance of this contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor will take action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(c) The Contractor will comply with all provisions of Executive Order No. 11246, will furnish all information and reports required by Executive Order No. 11246, and will permit access to his books, records, and accounts by the contracting agency and the Committee for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(d) In the event of the Contractor's non-compliance with the non-discrimination clause of this section, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in and such other sanctions as may be imposed and remedies invoked as provided in said order, or as otherwise provided by law.

(e) The Contractor will include the provisions of this section in every subcontract or purchase order unless exempted so that such provisions will be binding upon each subcontractor or vendor.

In accordance with regulations of the Secretary of Labor, the rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the Executive Orders superseded by Executive Order 11246, shall, to the extent that they are not inconsistent with Executive Order 11246, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of Executive Order No. 11246.

2.0

BID PROPOSAL

Submitted: _____, 2018

Proposal of: _____ (hereafter referred to as "Bidder"), a contractor organized and existing under the laws of the State of _____.

To: City of LaGrange, Georgia (hereafter referred to as "City"). Work to be performed:

PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO CONSTRUCT THE LAGRANGE SKATE PLAZA PROJECT, AS SHOWN ON THE PLANS AND SPECIFICATIONS PREPARED BY STANTEC CONSULTING, DATED MAY 15, 2018, IN THE CITY OF LAGRANGE AND TROUP COUNTY, GEORGIA 30240

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal as principals are named herein; that this Proposal is made without connection with any other person, company or parties making a bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the Specifications for the work and contractual documents relative thereto; has read all Instructions to Bidders and Special Provisions furnished prior to the opening of bids; and that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the City in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the construction of the work in full and complete accordance with the shown, noted, described, and reasonably intended requirements of the Specifications to the full and entire satisfaction of the City, with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents.

The Bidder declares that he understands that the quantities shown in the Proposal are subject to adjustment by either increase or decrease, and that should the quantities of any of the items of work be increased, the undersigned proposes to do the additional work at the unit prices stated herein; and should the quantities be decreased, he also understands that payment will be made on actual quantities at the unit price bid and will make no claim for anticipated profits for any decrease in the quantities and that actual quantities will be determined upon completion of work, at which time adjustment will be made to the contract amount by direct increase or decrease.

The Bidder further proposes and agrees hereby to commence work within 7 days of contract award date, and shall fully complete all work thereunder within the time specified of 90 days.

The undersigned further agrees that, in case of failure on his part to execute the said Contract and Surety Bonds within 7 calendar days after written notice being given of the award of the Contract, the Check or Bid Bond accompanying this bid, and the monies payable thereon, shall be paid the City, as liquidated damages for such failure; otherwise, the Check or Bid Bond accompanying this Proposal shall be returned to the undersigned.

Attached hereto in accordance with the Instructions to Bidders and Special Provisions is a bid bond or certified check on the:

_____ of _____ in the amount of

_____ Dollars (\$_____)

The full name and residence of persons or parties interested in the foregoing bids, as principals, are named as follows:

The Bidder shall state here what work he has done of similar nature and give references that will afford the City Opportunity to judge as to experience, skill, business and financial competence.

(Signed)_____ L.S.

By:_____ L.S.

Title:_____

LAGRANGE SKATE PLAZA

Lump Sum Proposal

Bidder agrees to perform all of the work described in the Contract Documents for the following Lump Sum Price: _____

Item	Description	Qty	Unit Price	Total Price
1	Skate Park within Limit of Work as shown in Construction Documents	1	Lump Sum	\$_____

Lump Sum Proposal includes Mobilization and Traffic Control, Clearing/Demolition and Grading/Drainage, Erosion Control, Construction of Skate Features.

Lump Sum Proposal does not include labor, materials and equipment required for Irrigation, Landscaping, Plant Materials, Site Furnishings and Light Fixtures.

The Contractor shall pay to the City as liquidated damages the sum of FIVE HUNDRED dollars (\$500) for each calendar day that he shall be in default of completing the work in this contract within the time limit OF 90 DAYS.

3.0 CONTRACT AGREEMENT

This Agreement made and entered into on the ____ day of _____, 2018 by and between the City of LaGrange, Georgia, a Municipal Corporation of Troup County, party of the first part (hereinafter called the "City") and

_____ party of the second part (hereinafter called the "Contractor") to perform the following work:

PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO CONSTRUCT THE LAGRANGE SKATE PLAZA PROJECT, AS SHOWN ON THE PLANS AND SPECIFICATIONS PREPARED BY STANTEC CONSULTING DATED MAY 15, 2018, IN THE CITY OF LAGRANGE AND TROUP COUNTY, GEORGIA 30240

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the City as follows:

1. That the Contractor for the sum of _____ will furnish all equipment, tools, materials, skill and labor of every description, necessary to carry out and to complete in a good, firm, substantial and workmanlike manner all of the work specified in the foregoing Proposal made by the Contractor, Instructions to Bidders and Special Provisions, this Agreement, Performance and Payment Bonds, Specifications, and Exhibits which form essential parts of this Agreement as attached hereto.
2. The City shall make partial payments to the Contractor on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the Contractor, including materials delivered to the site, less TEN percent (10%) of the amount of such estimate which is to be retained by the City until all work has been performed strictly in accordance with this Agreement, and until such work has been accepted by the City. The City shall make payment within fifteen (15) days after receipt of the approved invoice. The terms of this contract are intended to supersede all provisions of the Prompt Pay Act.
3. Upon submission by the Contractor of evidence satisfactory to the City that all payrolls, material bills and other costs incurred by the Contractor in connection with the construction of the work have been paid in full, and final acceptance of the work by the City, final payment on account of this Agreement shall be made within thirty (30) days.
4. It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the surety bonds hereto attached for its faithful performance, the City shall deem the surety or sureties upon such bonds to be unsatisfactory, or if, for any reason, such bonds cease to be adequate to cover the performance of the work, the Contractor shall, at his expense, within five (5) days after the receipt of notice from the City, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the City. In such event no further payment to the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the City.
5. Any notice to any Contractor from the City relative to any part of this contract shall be in writing and considered delivered when said notice is posted by registered mail to the Contractor at his last given address, or delivered in person to said Contractor or his authorized representative on the work, or is deposited in the regular United States mail in a sealed, postage prepaid envelope and the receipt thereof is acknowledged by the Contractor.

6. All papers required to be delivered to the City shall be delivered to the City, and any notice to or demand upon the City shall be sufficiently given if delivered to the office of his business address or if deposited in the United States mail in a sealed, postage prepaid envelope addressed to the City and the receipt thereof is acknowledged by the City.

7. Upon notice from the Contractor that work is completed, the City will make a final inspection of the work, and shall notify the Contractor of all instances where his work fails to comply with the Specifications, and to the satisfaction of the City. Final payment will be held until complete acceptance by the City of all work.

8. For a period of at least one year after the completion of the contract and acceptance by City, the Contractor warrants the fitness of all work done and materials and equipment put in place under this Contract and neither the final certificate of payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the City shall constitute acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting there from, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified.

9. Pursuant to the Georgia Security and Immigration Compliance Act of 2006 Contractor is required to comply with the requirements of O.C.G.A Section 13-10-91 and Georgia Administrative Code Rule 300-10-1-.02, regarding participation in the federal work authorization program, as a condition of this contract. In the event Contractor employs or contracts with any subcontractor(s) in connection with this contract, the Contractor will secure from said subcontractor(s) proof of the subcontractor's compliance with O.C.G.A. Section 13-10-91 and Georgia Administrative Code Rule 300-10-1-.02 by the subcontractor's execution of an affidavit which conforms substantially to the form attached hereto as Exhibit _____. Contractor shall require any such subcontractor affidavit to be made a part of the Contractor/Subcontractor agreement, and shall also maintain such record for inspection by the City at any time.

10. Contractor states that it has the following number of employees:

_____ 500 or more employees
_____ 100 or more employees
_____ Fewer than 100 employees

11. In addition to any other exhibits attached to this contract, the Contractor Affidavit and Agreement submitted to the City in conjunction with Contractor's bid shall be and is made a part of this contract.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement under their respective seals on the day and date first above written.

CONTRACTOR: _____ **(SEAL)**

Signature: _____

Name and Title: _____

ATTEST: _____

Name and Title: _____

CITY OF LAGRANGE, GEORGIA (SEAL)

Signature: _____

Name and Title: MEG KELSEY, CITY MANAGER

ATTEST: _____

Name and Title: TERESA TAYLOR, ASSISTANT CITY MANAGER

4.0 SPECIFICATIONS AND EXHIBITS

- 1.) Certificate of Liability Insurance
- 2.) Performance Bond
- 3.) Payment Bond
- 4.) Contractor Affidavit and Agreement
- 5.) Subcontractor Affidavit

ACORD CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YY)
PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED SAMPLE - LARGE CONTRACTORS	INSURERS AFFORDING COVERAGE	
	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
INSURER E:		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS								
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$1,000,000 FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$1,000,000 PRODUCTS - COMP/OP AGG \$1,000,000								
OR	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$								
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$								
	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$								
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				<table border="1" style="width: 100%; font-size: x-small;"> <tr> <td style="width: 60%;">WC STATUTORY LIMITS</td> <td style="width: 40%;">OTHER</td> </tr> <tr> <td>E.L. EACH ACCIDENT</td> <td>\$1,000,000</td> </tr> <tr> <td>E.L. DISEASE - EA EMPLOYEE</td> <td>\$1,000,000</td> </tr> <tr> <td>E.L. DISEASE - POLICY LIMIT</td> <td>\$1,000,000</td> </tr> </table>	WC STATUTORY LIMITS	OTHER	E.L. EACH ACCIDENT	\$1,000,000	E.L. DISEASE - EA EMPLOYEE	\$1,000,000	E.L. DISEASE - POLICY LIMIT	\$1,000,000
WC STATUTORY LIMITS	OTHER												
E.L. EACH ACCIDENT	\$1,000,000												
E.L. DISEASE - EA EMPLOYEE	\$1,000,000												
E.L. DISEASE - POLICY LIMIT	\$1,000,000												
	OTHER												

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER: _____	CANCELLATION
CITY OF LAGRANGE		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

PERFORMANCE BOND

STATE OF GEORGIA
COUNTY OF TROUP
CITY OF LAGRANGE

KNOW BY ALL MEN THESE PRESENTS, that we, _____ as Principal, and _____ as Surety, are held and firmly bound unto the City of LaGrange, Georgia, in the full sum of _____ Dollars (\$_____) for payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

WHEREAS, the above bound Principal has entered into a contract with the City of LaGrange, Georgia dated the ____ day of _____, 20__, which contract is made a part of this agreement for the construction of:

NOW THEREFORE, the conditions of this obligation are such that if the Principal shall in all respects perform the terms and conditions of said contract (and such alterations or additions as may be made therein or in the plans and specifications) and shall indemnify and save the City of LaGrange, Georgia harmless against any claims for using any form of material, process, composition or anything which is patented, and likewise indemnify and save the owner or the City, if the City is not the owner, harmless against all claims or damages by reason of any default or negligence, want of skill or care on part of said Principal or Agents in and about the performance of said contract, and shall comply with all laws pertaining to said work, and shall comply with and shall well, truly, fully and faithfully perform any guarantee provided for in said contract, then this obligation shall be void, otherwise of full force and effect.

And the surety of this bond, for value received, agrees that no change, extensions of time, alterations or additions to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of such change, extension of time, alterations or additions to the terms of the contract or the work or to the plans and specifications.

IN WITNESS WHEREOF, the Principal and the Surety have caused these presents to be duly signed and sealed this ____ day of _____, 20__.

PRINCIPAL:

(SEAL)

BY: _____
Title: _____

ATTEST: _____
Title: _____

Signed, sealed and delivered this ____
day of _____, 20__,
in the presence of:

Witness

Address of Witness

SURETY:

(SEAL)

BY: _____
Title: _____

ATTEST: _____
Title: _____

Signed, sealed and delivered this ____
day of _____, 20__,
in the presence of:

Witness

Address of Witness

APPROVED AS TO FORM:

CITY ATTORNEY

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PAYMENT BOND

STATE OF GEORGIA
COUNTY OF TROUP
CITY OF LAGRANGE

KNOW BY ALL MEN THESE PRESENTS, that we, _____
_____ as Principal, and
_____ as Surety, are held and firmly
bound unto the City of LaGrange, Georgia, in the full sum of _____
Dollars (\$_____) for the use and protection of said owner or City if the City is not the owner, and all subcontractors
and all persons supplying labor, services, skill, tools, materials, machinery and equipment for the performance of the work provided
for in the contract hereinafter referred to, for the payment of which sum well and truly to be made we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bound Principal has entered into a contract with the City of LaGrange, Georgia dated the _____
day of _____, 20____, for the construction of:

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly and
promptly pay all subcontractors and all other persons supplying labor, services, skill, tools, materials, machinery and equipment
furnished for the performance of the work provided for by said contract and such alterations or additions as may be made therein
or in the plans and specifications, then this bond to be void; otherwise, it shall remain in full force and effect.

And the surety of this bond, for value received, agrees that no change, extensions of time, alterations or additions to the
terms of this contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way
affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations or additions to
the terms of the contract or the work or to the plans and specifications or to the work to be performed thereunder.

It is agreed that this bond is executed pursuant to and in accordance with the provisions of O.C.G.A. § 36-91-40 et seq.,
as amended, and is intended to be and shall be construed to be a bond in compliance with the requirements thereof.

IN WITNESS WHEREOF, the Principal and the Surety have caused these presents to be duly signed and sealed this
_____ day of _____, 20____.

PRINCIPAL:

_____ (SEAL)

BY: _____

Title: _____

ATTEST: _____

Title: _____

Signed, sealed and delivered this _____
day of _____, 20____,
in the presence of:

Witness

Address of Witness

SURETY:

_____ (SEAL)

BY: _____

Title: _____

ATTEST: _____

Title: _____

Signed, sealed and delivered this _____
day of _____, 20____,
in the presence of:

Witness

Address of Witness

APPROVED AS TO FORM:

CITY ATTORNEY

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CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the CITY OF LAGRANGE, GEORGIA has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with CITY OF LAGRANGE, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the CITY OF LAGRANGE at the time the subcontractor(s) is retained to perform such service.

EEV / Basic Pilot Program* User Identification Number

Company Name

BY: Authorized Officer or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS
THE ____ DAY OF _____, 2018.

Notary Public
My Commission Expires: _____

* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV / Basic Pilot Program" operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

(End of Form)

SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ (name of contractor) on behalf of **CITY OF LAGRANGE** has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

EEV / Basic Pilot Program* User Identification Number

Company Name

BY: Authorized Officer or Agent
(Subcontractor Name)

Date

Title of Authorized Officer or Agent of Subcontractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON
THIS THE ____ DAY OF _____, 2018.

Notary Public
My Commission Expires: _____

* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV / Basic Pilot Program" operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

(End of Form)

PRIME SUBMITTING GENERAL CONTRACTOR OR SPECIALTY SUB-CONTRACTOR
SKATE PARK CONSTRUCTION QUALIFICATION STATEMENT

The intent of the **City of LaGrange** and the **Skate Park Architect** is to qualify skate park builders (PRIME SUBMITTING GENERAL CONTRACTOR OR SPECIALTY SUB-CONTRACTOR) for this project **WHO MUST HAVE** prior specialty skate park construction experience. This qualification is required for specialty skate park items only. Other work normally performed by a general contractor (site grading, drainage, paving, concrete flatwork, landscaping, irrigation, site lighting, building construction, etc.) that is considered site work does not require qualification. This statement will determine the prime submitting general contractor or specialty contractor's qualification for this project. In addition to skate park construction experience, firms must also demonstrate an ability to meet minimum guidelines as set in the SPECIAL PROVISIONS of the Contract Documents. Submission of this questionnaire does not constitute qualification. Qualification may be denied for any reason the **City of LaGrange** deems necessary for the successful completion of the project.

PRIME SUBMITTING GENERAL CONTRACTOR OR SPECIALTY SUB-CONTRACTOR
INFORMATION

COMPANY NAME (Full Legal Name)

STREET ADDRESS

MAILING ADDRESS (If Different Than Above)

CITY

STATE

ZIP

PHONE #

CONTACT PERSON

E-MAIL

FAX #

FEDERAL TAX ID NO.

APPLICATION SUBMITTED BY

TITLE

SPECIALTY SUB-CONTRACTOR INFORMATION

If the Specialty Sub-Contractor is a corporation, please provide the following:

- State & Date of Incorporation _____
- Contractor License # and Classification _____
- Secretary / Treasurer's Name _____

If the Specialty Sub-Contractor is a partnership, please provide the following:

- State & Date of Partnership _____
- Contractor License # _____
- General Partner(s) Names _____

If the Specialty Sub-Contractor is sole proprietor, or individually owned, please provide the following:

- State, & Date of Ownership _____
- Primary Owner's Name & License # _____

Please Check

YES NO

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. How many years has your organization been in business under your present name? ____ yrs.
Have you ever operated under any other names in the past?
If so, name of organization _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Has any owner, officer or partner of your organization ever been an owner, officer or partner of this or any other organization that failed to complete a construction contract or been charged liquidated damages? If yes, please provide additional information on a separate sheet. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Has your organization ever been denied, debarred, or suspended by a government agency with regard to licensing or award of contracts? If yes, please provide additional information on a separate sheet. Does the organization owe back taxes to the IRS ? If so how much ? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Has your organization ever failed to qualify as a Specialty Contractor of any project? If yes, please provide additional information on a separate sheet. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Does your organization meet the following minimum requirements: |
| <input type="checkbox"/> | <input type="checkbox"/> | <ul style="list-style-type: none">• The successful Specialty Contractor must be able to provide valid and in good standing the following insurance coverage for the entire duration of the project, naming your firm and the Owner as additionally insured. A sample certificate with the following minimum coverage's must be submitted with this statement:
❖ Commercial General Liability \$1,000,000 Each Occurrence / \$2,000,000 General Aggregate
❖ Automobile Liability Insurance \$1,000,000 Minimum
❖ Workman's Compensation Insurance State Minimum Coverage as Required By Law |
| <input type="checkbox"/> | <input type="checkbox"/> | <ul style="list-style-type: none">• The ability to provide a Bid Bond at the time of the project submission. Also, Performance Material & Payments Bonds in the total amount of the project at the award of contract. Please provide a letter of reference from your surety company (not an agent or broker) stating your good standing ability to bond a project of this scope.• Attach 3 Letters of Reference from a past public agency giving recommendation of your organization's ability to perform quality skate plaza construction. |

CURRENT SKATE PARK PROJECT EXPERIENCE

Please provide a list of **all** concrete skate park construction projects that are **in progress** by your organization or which are complete but have not been open and in operation for a period of at least **ONE (1) year**. The projects listed must have a construction agreement.

PROJECT INFORMATION REQUIRED – Please provide all information requested and utilize additional sheets as necessary.

Name and Location of Project _____

Owner's Name _____

Address _____

Phone Number _____ Email _____

Project Size
(Skating area only) _____ sq ft Construction Value \$ _____ % Complete _____ Completion
Date _____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project _____

Owner's Name _____

Address _____

Phone Number _____ Email _____

Project Size
(Skating area only) _____ sq ft Construction Value \$ _____ % Complete _____ Completion
Date _____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project _____

Owner's Name _____

Address _____

Phone Number _____ Email _____

Project Size
(Skating area only) _____ sq ft Construction Value \$ _____ % Complete _____ Completion
Date _____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project_____

Owner's Name_____

Address_____

Phone Number_____ Email_____

Project Size
(Skating area only)_____sq ft Construction Value \$_____ % Complete_____ Completion
Date_____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project_____

Owner's Name_____

Address_____

Phone Number_____ Email_____

Project Size
(Skating area only)_____sq ft Construction Value \$_____ % Complete_____ Completion
Date_____

Designer and Architect _____

Project Description and Scope of Work _____

PAST COMPLETED SKATE PARK PROJECT EXPERIENCE

The prime submitting firm or its specialty contractor, in order to be qualified for this project must have completed **THREE (3)** public concrete skate park facilities with a minimum skating area of **5,000 square feet** in the last **FIVE (5) years**. These parks must be open and in good operating condition for at least **ONE (1) year**. Only those projects where the complete construction of the facility has been the sole responsibility of your firm can be included. Please provide detailed project information and verifiable references for each of these qualifying skate park facilities. If the prime submitting firm will not be performing the specialty items listed on the plans but will have these items constructed by a specialty subcontractor, only the subcontractor will be required to be qualified for these specialty bid items.

No exceptions will be made to these requirements.

PROJECT INFORMATION REQUIRED – Please provide all information requested and utilize additional sheets as necessary.

PROJECT PHOTO REQUIRED – Please provide at least one (1) photo of each completed construction.

Name and Location of Project _____

Owner's Name _____

Address _____

Phone Number _____ Email _____

Project Size
(skating area only) _____ sq ft Construction Value \$ _____ % Complete _____ Completion
Date _____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project _____

Owner's Name _____

Address _____

Phone Number _____ Email _____

Project Size
(skating area only) _____ sq ft Construction Value \$ _____ % Complete _____ Completion
Date _____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project_____

Owner's Name_____

Address_____

Phone Number_____ Email

Project Size
(skating area only)_____sq ft Construction Value \$_____ % Complete_____ Completion
Date_____

Designer and Architect _____

Project Description and Scope of Work _____

Name and Location of Project_____

Owner's Name_____

Address_____

Phone Number_____ Email

Project Size
(skating area only)_____sq ft Construction Value \$_____ % Complete_____ Completion
Date_____

Designer and Architect _____

Project Description and Scope of Work _____

ADDITIONAL QUESTIONNAIRE & REQUIREMENTS

Please accurately answer & provide for all the information requested utilizing a separate sheet as necessary.

Please Check

YES NO

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | A. Has your firm excavated a below ground skate park structure and prepared it for shotcrete application? |
| <input type="checkbox"/> | <input type="checkbox"/> | B. Has your firm placed transitional and radial shotcrete sculptures using approved methods including a smooth trowel finish? |
| <input type="checkbox"/> | <input type="checkbox"/> | C. Does your firm possess all the necessary equipment, labor forces, and material suppliers to complete this project per plans and specifications within the given schedule? |
| <input type="checkbox"/> | <input type="checkbox"/> | D. Has your firm fabricated, galvanized, and installed rolled/bent ornamental metal coping? |
| | | E. Has your firm constructed custom concrete skate plaza features like: (mark those that apply) |
| | | <input type="checkbox"/> Skate Bowl <input type="checkbox"/> Integral Color <input type="checkbox"/> Sculptural artistic elements |
| <input type="checkbox"/> | <input type="checkbox"/> | F. Has your firm performed any concrete skate plaza construction with workmanship issues, defects, or warranty problems, including having to repair or replace portions of work? |
| <input type="checkbox"/> | <input type="checkbox"/> | G. Can your firm provide shop drawings and submittals for all of the required and specified materials on this project? |

SCHEDULE & SKATE PLAZA MANAGEMENT EXPERIENCE

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Please provide a schedule identifying key tasks and milestones your project team has identified to demonstrate your ability to coordinate the entire job. This will be for evaluation purposes only and is not intended to be submitted as a working schedule. |
| <input type="checkbox"/> | <input type="checkbox"/> | Please provide a detailed list identifying your firm's key personnel and management team that is responsible for the aforementioned skate plaza experience. Please include any owners, officers, managers, construction supervisors, or any other employee with the identified experience for the listed qualifying projects. <u>Show that the individual directly responsible for the construction management of these projects will be the same individual utilized on this project.</u> |
-

This document must be notarized. This qualification statement will not be considered responsive or valid unless it

is completed in its entirety and signed, dated, and notarized. The **City of LaGrange** and **Skate Park Architect** reserve the right to disqualify any firm for any reason deemed necessary for the successful completion of this project.

The PRIME SUBMITTING GENERAL CONTRACTOR OR SPECIALTY SUB-CONTRACTOR (undersigned) hereby certifies and that all of the information contained in this document is true and correct to the best of their knowledge. I declare under penalty of perjury that the foregoing is correct.

Legal Business Name of Submitting Individual, Partnership, Limited Liability Company,
or Corporation & Contractor License Number

Printed Name of Prime Submitting General Contractor or Specialty Sub-contractor or Authorized Agent

Signature of Prime Submitting General Contractor or Specialty Sub-contractor or Authorized Agent

**ALL SIGNATURES MUST BE
WITNESSED BY NOTARY
(ATTACH JURAT)**

SPECIFIC SKATE PARK TECHNICAL SPECIFICATIONS TABLE OF CONTENTS

DIVISION 02 – EXISTING CONDITIONS

- 02 00 00 Site Conditions
- 02 41 13 Selective Site Demolition

DIVISION 03 - CONCRETE

- 03 10 00 Concrete Forming and Accessories
- 03 20 00 Concrete Reinforcing
- 03 30 00 Cast-In Place Concrete
- 03 37 13 Shotcrete
- 03 39 00 Concrete Curing

DIVISION 05 - METALS

- 05 50 00 Metal Fabrications

DIVISION 9 - FINISHES

- 09 90 00 Painting

DIVISION 31 - EARTHWORK

- 31 00 00 Earthwork
- 31 12 00 Selective Site Clearing
- 31 23 13 Sub-Grade Preparation

DIVISION 33 – UTILITIES

- 33 40 00 Storm Drainage Utilities

NOTE:

Where work is designated as work of “Skate Park Specialty Contractor” it is understood that work is included in the work of the General Contractor who will sub-contract with the “Skate Park Specialty Contractor”, unless the General Contractor is qualified, licensed, insured and bonded to perform the Skate Park Specialty Work with its own forces.

SECTION 02 00 00
SITE CONDITIONS

PART 1-GENERAL

1.01 RELATED INFORMATION

Related information and requirements are included in the General and Supplementary Conditions with regard to existing underground utilities.

1.02 INFORMATION ON SITE CONDITIONS

- A. All information obtained by the engineer regarding site conditions, subsurface information, groundwater elevations, existing constructions of site facilities, and existing underground utilities and similar data are shown on the plans or provided herein.
- B. Information derived from inspection of topographic maps, or from plans showing locations of utilities and structures will not in any way relieve Contractor from any risk, or from properly examining the site and making such additional investigations as he may elect, or from properly fulfilling all the terms of the contract documents.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall satisfy himself as to the nature and location of the work and the general and local conditions.
- B. The Contractor further shall satisfy himself as to the character, quality, and quantity of surface and subsurface materials to be encountered by performing site inspections, reviewing soils report (if applicable) and reviewing any other pertinent information. Any new exploratory work must be approved by the owner. Failure of the Contractor to acquaint himself with the site and all available information will not relieve him of the responsibility for properly estimating the difficulty or cost of completing the work.
- C. The Contractor shall anticipate underground obstructions such as utility lines, concrete, water table and variation hereof due to rainfall, soil conditions and debris. No extra payment will be allowed for the removal, replacement, repair or possible increased cost caused by underground obstructions. Any such lines or obstructions indicated on the map show only the approximate location and must be verified in the field by the Contractor. The Owner and Engineer will endeavor to familiarize the

contractor with all known underground obstructions, but this will not relieve the Contractor from full responsibility in anticipating and locating all underground obstructions.

D. ADDITIONAL INFORMATION

Prior to bidding, bidders may make their own subsurface investigations subject to time schedules and arrangements approved in advance by the Owner. Before any subsurface test holes are excavated, obtain permits from governing agency to perform such work.

END OF SECTION 02 00 00

SECTION 03 10 00
CONCRETE FORMING AND ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION

Provide formwork and accessories for construction of cast-in-place concrete work.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 03 20 00-Concrete Reinforcing
- B. Section 03 30 00-Cast-in-Place Concrete
- C. Section 03 37 13-Shotcrete

1.03 QUALITY ASSURANCE

- A. Design Criteria: Conform to ACI 347-68, Chapter I.
- B. Allowable Tolerances: Conform to ACI 347-68, 2.4.

1.04 STORAGE OF MATERIALS

- A. Store materials on and under protective sheeting.

1.05 COORDINATION

- A. Notify responsible trades of schedules of concrete pours to allow time for installation and coordination.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Forms
 - 1. Flatwork: Nominal 2" thick No. 2 Common Southern Yellow Pine or steel forms.
 - 2. Vertical and Custom Work: Exterior grade Standard Douglas Fir (or equal plywood), minimum three ply, one smooth side sufficiently thick to sustain loads, or steel forms.
- B. Form Oil: Non staining, paraffin-base oil having a specific gravity of between 0.8 and 0.9.

- C. Form ties, bolts, rods, or patented devices having tensile strength of 3000 lbs., adjustable length, free of lugs which would leave a hole larger than 5/8" diameter and having a full one-inch depth of break-back.

PART 3 - EXECUTION

3.01 CONSTRUCTION AND ERECTION

- A. Construct forms in accordance with ACI 347-68.
- B. Build forms to shapes, lines and dimensions of detailed members of concrete construction. Set to line and grade, brace and secure to withstand placing of concrete and maintain their shape and position.
- C. Construct forms with care to produce concrete surfaces without unsightly or objectionable form marks in exposed concrete surfaces.
- D. Thoroughly clean surfaces of form material and remove nails before reuse. Do not reuse damaged or worn forms. Coat contact surfaces of forms with non-staining form oil prior to placing metal reinforcement.
- E. Immediately before placing concrete, clean forms of chips, sawdust, and debris. Immediately after removal of forms, remove form ties, wires, and defects and patch.

3.02 INSERTS AND ACCESSORIES

- A. Make provisions for required installation of accessories, bolts, hangers, sleeves, anchor slots and inserts cast in concrete. Obtain suitable templates or instructions for installation of items. Place expansion joints where detailed and required.

3.03 REMOVAL OF FORMS AND SHORING

- A. Remove forms and shores in accordance with ACI 347-68.

3.04 CLEANUP

- A. Remove debris and trash.

END OF SECTION 03 10 00

SECTION 03 20 00
CONCRETE REINFORCING

PART 1 - GENERAL

1.01 DESCRIPTION

Provide steel reinforcement for cast-in-place concrete.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 03 10 00-Concrete Forming and Accessories
- B. Section 03 30 00-Cast-in-Place Concrete
- C. Section 03 37 13-Shotcrete

1.03 DELIVERY AND STORAGE

- A. Stack reinforcing steel in tiers. Mark each length, size, shape and location. Maintain reinforcement free of dirt, mud, paint or rust.

1.04 REFERENCE STANDARDS

- A. American Concrete Institute (ACI)
 - 1. ACI 315-80, Manual of Standard Practice for Detailing Reinforced Concrete Structures.
 - 2. ACI 318-77, Building Code Requirements for Reinforced Concrete.
- B. American Society for Testing and Materials (ASTM - latest editions)
 - 1. ASTM A233, Mild Steel Arc Welding Electrodes.
 - 2. ASTM A615, Deformed Billet-Steel Bars for Concrete Reinforcement.
 - 3. ASTM A706, Low-Alloy Steel Deformed Bars for Concrete Reinforcement.
- C. Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice, latest edition.
- D. American Welding Society (AWS): Reinforcing Steel Welding Code, D12.1-75, including latest revisions.

1.05 SUBMITTALS

- A. Shop Drawings

Indicate complete reinforcing method for each concrete member including materials, sizes, bends, dimensions, stirrup spacing, and placing details not shown on drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Steel Reinforcement: Deformed billet steel, ASTM A615, Grade 60. Minimum 75% Recycled Product.
- B. Welded Steel Reinforcement: Deformed low-alloy steel, ASTM A706, carbon content not exceeding 0.30% and manganese content not exceeding 0.60%. Identify and tag with manufacturer's heat identification number.

2.02 FABRICATION

- A. Fabricate to sizes, shapes, and lengths detailed in accordance with requirements of ACI 318-71 and ACI 315-65.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars" for placing and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice and other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover over reinforcement.
- D. Accurately place reinforcing steel in accordance with drawings. Rebar shall be 2" beneath concrete surfaces. Thoroughly clean reinforcement of any coating which would reduce bonding. Do not heat, cut, or bend bars without Resident Engineer's approval. Do not splice reinforcement at points of maximum stress. Stagger splices in adjacent bars and provide a minimum overlap of 30-bar diameters at splices unless specifically noted otherwise on Drawings.
- E. Securely saddle tie intersections with No. 18-gauge black annealed wire. Rigidly secure reinforcement in place. Provide concrete coverage as shown on Drawings.

3.02 WELDING REINFORCEMENT

- A. Weld deformed steel reinforcement bars in strict accordance with AWS 12.1, using recommended pre-heat temperature and electrode for type of steel being welded.
- B. Do not weld steel reinforcement bars without proper heat identification of bars.

3.03 CLEANUP

- A. Remove debris and trash resulting from specified work.

END OF SECTION 03 20 00

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.01 RELATED INFORMATION

- A. Section 03 10 00-Concrete Forming and Accessories
- B. Section 03 20 00-Concrete Reinforcing
- C. Section 03 37 13-Shotcrete
- D. Section 03 39 00-Concrete Curing

1.02 SUBMITTALS

- A. Design of Concrete Mixes
 - 1. Contractor shall be responsible for and pay for design of concrete mixes. Design of concrete mixes shall be performed by a Testing Laboratory selected by Contractor. Design methods to be in accordance with ACI 318-71.
 - 2. Make three trial mixes using aggregate proposed.
 - 3. Make advance tests of trial mixes with proposed materials. Test four cylinders in accordance with ASTM C-39 at 7 days and 28 days. Do not place concrete on project until laboratory reports and breaks of confirmation cylinders indicate that proposed mixes will develop required strengths.
 - 4. Check mix design and revise, if necessary, wherever changes are made in aggregate or in surface water content of aggregate or workability of concrete. Slump shall be the minimum to produce workable mix. Laboratory shall prescribe minimum quantity of water.
 - 5. If Portland Cement reducers or other additives are used, submit control mix design without reducers or additives as well as mix exactly proposed used.
 - 6. Sample of Workmanship: Provide on site, minimum one (1) 48"x48" sample (not part of finished project) of each flatwork finish.
 - 7. Forward two copies of design mix to Skate Park Architect for approval.

8. Soils Investigation Report.

1.03 COORDINATION

Notify responsible trades of schedules of concrete pours to allow for adequate time for installation of work and inspection prior to pour. Obtain all materials and other miscellaneous steel items to be cast into concrete. Verify all measurements and layout to avoid any delay.

1.04 QUALITY ASSURANCE

A. Concrete Testing

Prepare samples by each application crew using the equipment, materials and mix proportions proposed for the Project.

B. Acceptance

Final acceptance of the concrete will be based upon Skate Park Architect's approval.

C. Regulatory Requirements

Meet requirements of applicable laws, codes, and regulations required by authorities having jurisdiction over Work.

D. Contractor Samples

1. Contractor shall prepare a 48" x 48" sample for each paving type indicated on Drawings prior to installation.
2. Samples shall be completed to the satisfaction of the aggregates, texture, color, and finishes to Skate Park Architect.
3. These samples will become the standard of quality by which future paving samples and work will be judged.
4. Samples to remain on-site and be protected during the course of construction, as a means to compare work in progress.

D. Concrete Manufacturer Qualifications

Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.

E. Contractor Experience

CAST-IN-PLACE CONCRETE

03 30 00

Provide evidence to indicate successful experience in providing cast-in-place concrete work for skate parks similar in scope to that specified herein and can demonstrate successful experience through past project documentation and references.

1. Required Experience: Contractor or Subcontractor must have completed three (3) public concrete skate park facilities with a minimum size of 5,000 square feet in the last 5 years. Parks must be open and in good operating condition for at least one year.
2. Evidence of Experience: Contractor or Subcontractor shall submit to Skate Park Architect satisfactory documentation of the aforementioned experience and qualification. If a Contractor cannot provide this information or if it is unverifiable, work under this Section and any other related Section cannot be completed by Contractor. This submission must contain the Project Name & Location, Owner's Name & Contact Information, Architect Name & Contact Information, Project Size, Contract Value, Completion Date, and Supervisor and/or Key Personnel responsible for this experience for each of the qualifying projects.

F. Safety and Performance Guidelines

Comply with all safety and performance requirements and all applicable references as specified in the ASTM F2480 Standard Guide for In-ground Skate Parks.

G. ACI Requirements

Meet all requirements of ACI 506, Chapter 13, Wet Method and Chapter 5, Shotcrete Crew.

1.05 REFERENCE STANDARDS

- A. ACI 211.1-81 - Recommended Practice for Selecting Proportions for Normal-Weight Concrete.
- B. ACI 211.3-81 - Recommended Practice for Selecting Proportions for Lightweight Concrete.
- C. ACI 301-73 - Specifications for Structural Concrete for Buildings.
- D. ACI 305-77 - Recommended Practice for Hot Weather Concreting.
- E. ACI 306-72 - Recommended Practice for Cold Weather Concreting.

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- F. ACI 318-77 - Building Code Requirements for Reinforced Concrete.
- G. ASTM C33 - Concrete Aggregates.
- H. ASTM C94 - Ready-Mixed Concrete.
- I. ASTM C143 - Test for Slump of Portland Cement Concrete.
- J. ASTM C150 - Portland Cement.
- K. ASTM C260 - Air-Entraining Admixtures for Concrete.
- L. ASTM C494 - Chemical Admixtures for Concrete.
- M. ASTM C618 - Fly Ash and Raw or Calcined Natural Pozzolans for Use in Portland Cement Concrete.

1.06 JOB CONDITIONS

- A. Environmental Conditions

Submit plan to monitor wind velocity, relative humidity, temperature, and concrete temperature in order to maintain specified maximum rate of evaporation.

- B. Coordination

1. Coordinate schedules of concrete pours to allow adequate time for installation of other related work.
2. Verify that anchor bolts and other embedded steel items to be cast into concrete are properly placed.
3. Coordinate size and location of mechanical and electrical equipment concrete pads.
4. Coordinate earthwork and soils report requirements with placement requirements.
5. Coordinate with form-work and finishes sections to provide finish floor levelness and flatness as specified herein. Slope to drains at grades and percent slope as shown on contract documents.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Portland Cement: ASTM C-150, Type II.
- B. Fine Aggregate: Clean, hard, durable, uncoated natural sand, free from silt, loam or clay, meeting requirements of ASTM C-33.
- C. Coarse Aggregate: Class II-Hard durable, un-coated crushed limestone meeting requirements of ASTM C-33. Unless otherwise noted in aggregate size 1" minimum, No., 56 or 57. Base rock shall conform to local code.
- D. Water: Potable.
- E. Admixture: Cement-dispersing, water-reducing compound, ASTM C-494, Type A, as made by Master Builders, Sika, or Gifford-Hill Co., or equal. Depending upon weather conditions at time of placing, ASTM C-494, Type D (water-retarding) or Type E (water-reducing, accelerating) may be used if approved by Owner's representative.

2.02 PROPORTIONS AND MIXING

- A. Proportions and Design

In accordance with approved mix design.

Min. All. Comp.
Strength (28 days)

4000 PSI

- B. Admixture

No admixtures without approval. Introduce admixtures in quantities and according to methods recommended by admixture manufacturer. Add air-entraining agent to concrete as scheduled.

- C. Slump: Not to exceed 3 ½"

- C. Mixing

Ready mixed concrete in accordance with ASTM C-94. Do not transport or use concrete after 1-1/2 hours have elapsed from time of initial mixing. Supplier of transit-mixed concrete shall have a plant of sufficient capacity, and adequate transportation facilities to assure continuous delivery at required rate, to provide continuous concrete placement throughout a pour.

- E. Grout and Dry Pack: Non-Shrink, Non-Metallic: Five Star® Grout by Five Star Products, Inc., meeting performance requirements of ASTM C-827, C-1107-02 Grades A, B and C, and C-1107-07, 5,000 PSI.

2.03 CURING MATERIALS

- A. Water: Domestic Quality, clear and potable with no chemical content.
- B. Sheet Material: ASTM C171. Moisture loss maximum .055 g/ cm sq. Color: White.
- C. Curing Compounds: Ashford Formula™ Curecrete by Curecrete Distribution, Inc., Phone (800) 998-5664, or equal.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Inspect subgrade, forms, reinforcing steel, pipes, conduits, sleeves, hangers, anchors, inserts, and other work required to be built into concrete and report any discrepancies. Notify Owner's Representative at least five (5) working days in advance of scheduled pour.
- B. Correct unsatisfactory work prior to pouring concrete.
- C. Remove rubbish from formwork immediately prior to placing concrete.

3.02 INSTALLATION

- A. Placing Concrete
 - 1. Convey and place concrete allowing no separation of ingredients in accordance with ACI 304 and as specified below.
 - 2. Maximum height of concrete free fall: five (5) feet.
 - 3. Regulate rate of placement to maintain plasticity and flow into position.
 - 4. Deposit concrete continuously until panel or section is completed.
 - 5. Place concrete in horizontal layers 18" maximum thickness.
- B. Consolidation
 - 1. Use mechanical vibrating equipment for consolidation.

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2. Vertically insert and remove hand-held vibrators at 18" o.c. for 10 to 15 seconds.
3. Do not use vibrators to transport concrete in forms.
4. Provide vibrators with minimum speed of 8000 RPM and with amplitude to consolidate effectively.
5. Thoroughly consolidate concrete and work around reinforcement, embedded items and into corners of forms. Thoroughly consolidate layers of concrete with previous layers.

C. Construction Joints

1. Unless otherwise shown on Drawings, each footing, wall, beam, and slab shall be considered as a single unit of operation and shall be monolithic in construction.
2. Where construction joints are absolutely unavoidable, locate joints at or near quarter points of spans where approved by Owner's Representative and/or shown on plan.
3. Saw Cut joints, Expansion Joints and Control Joints as detailed in contract documents.

D. Expansion Joint Fillers

1. Refer to Drawings for Expansion Joint locations and details.
2. Finish joint material flush with concrete surface.

E. Finish

Smooth Trowel. (See sample requirements under submittals).

F. Cracking

Cracking from inadequate curing is not allowed. Saw cut Joints and Construction Joints are shown on drawings. Contractor may, with approval of Owner's Representative, recommend and detail other joints required to prevent cracking.

3.03 CLEAN UP

Clean all debris, excess concrete and miscellaneous material associated with work.

END OF SECTION 03 30 00

CAST-IN-PLACE CONCRETE
03 30 00

**SECTION 03 37 13
SHOTCRETE**

PART 1 - GENERAL

1.01 SCOPE

Provide sprayed-on concrete (concrete conveyed into place by air pressure through a flexible tube or gun with controlled nozzle) referred to herein as shotcrete, complete as shown and as specified by Skate Park Contractor.

1.02 RELATED INFORMATION

- A. Section 03 10 00-Concrete Forming and Accessories
- B. Section 03 20 00-Concrete Reinforcing
- C. Section 03 30 00-Cast-In-Place Concrete
- D. Section 03 39 00-Concrete Curing
- E. Section 05 50 00-Metal Fabrications

1.03 REFERENCES

- A. Comply with the requirements of the current edition of the following codes and standards, except as herein modified:

Latest Uniform Standard Specifications issued by the City or County

American Concrete Institute (ACI): 506, Chapter 13, Wet Method.
Chapter 5, Shotcrete Crew.

American Society for Testing Materials (ASTM)

- 1. Concrete Testing
 - a. Prepare and pay for test specimens by each application crew using the equipment, materials and mix proportions proposed for the Project. Owner's Representative shall observe preparation of test panels noting placement of shotcrete by applications crew.
 - b. Test panel shall be at least 48" x 48" with the same reinforcement as in the structure. (Specimens shall be 6 in. thick). A Testing Agency shall take at least three (3) cores from the specimen and test them in accordance with ASTM C42.

2. Secure production samples of materials at plants and stockpiles during construction and test for compliance with Specifications.
3. Test strength of the shotcrete as work progresses as follows:
 - a. Cut cores from the structure and test in accordance with ASTM C42. A set of three (3) cores shall be taken not less than once each shift nor less than one for each 50 cubic yards of shotcrete placed through the nozzle. Cores shall be soaked in water for a minimum of 40 hours before testing.
 - b. When the length of a core is less than twice the diameter, apply the correction factors given in ASTM C42 to obtain the compressive strength of individual cores. The average compressive strength of three cores taken from the structure, representing a shift or 50 cubic yards of shotcrete, must equal or exceed 0.85f_c with no individual core less than 0.75f_c.

B. Acceptance

Final acceptance of the shotcrete will be based upon the results obtained from cores. Use of data obtained from impact devices will not be permitted for final acceptance of the shotcrete. However, these data may be useful for determining uniformity of the shotcrete.

1.04 QUALITY ASSURANCE

A. Concrete Testing

1. Prepare samples by each application crew using the equipment, materials and mix proportions proposed for the Project. Owner's Representative shall observe preparation of test panels noting placement of shotcrete by applications crew.
2. Test panel shall conform to Section 03 37 13 Shotcrete, Part 1.5 Submittals.
3. Secure and protect samples during construction and test for compliance with Specifications.

B. Acceptance

Final acceptance of the shotcrete will be based upon Skate Park Architect's approval.

C. Certification

Nozzleman certification shall be in accordance with ACI 506.3R.

D. Regulatory Requirements

Meet requirements of applicable laws, codes, and regulations required by authorities having jurisdiction over Work.

E. Contractor Samples

1. Contractor shall prepare and pay for a sample for each paving type indicated on Drawings prior to installation.
2. Samples shall be completed to the satisfaction of the Skate Park Architect and shall include aggregates, texture, color and finishes.
3. These samples will become the standard of quality by which future paving samples and work will be judged.
4. Samples to remain on-site and be protected during the course of construction, as a means to compare work in progress.

E. Concrete Manufacturer Qualifications

Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.

F. Contractor Experience

Provide evidence to indicate successful experience in providing cast-in-place concrete work for skate parks similar in scope to that specified herein and can demonstrate successful experience through past project documentation and references.

1. Required Experience

Contractor or Subcontractor must have completed three (3) public concrete skate park facilities with a minimum size of 5,000 square feet, in the last 5 years. Parks must be open and in good operating condition for at least one year.

2. Evidence of Experience

Contractor or Subcontractor shall submit to Skate Park Architect satisfactory documentation of the aforementioned experience and

qualification. If a Contractor cannot provide this information or if it is unverifiable, work under this Section and any other related Section cannot be completed by Contractor. This submission must contain the Project Name & Location, Owner's Name & Contact Information, Architect Name & Contact Information, Project Size, Contract Value, Completion Date, and Supervisor and/or Key Personnel responsible for this experience for each of the qualifying projects.

3. Safety and Performance Guidelines

Comply with all safety and performance requirements and all applicable references as specified in the ASTM F2480 Standard Guide for In-ground Skate Parks.

4. ACI Requirements

Meet all requirements of ACI 506, Chapter 13, Wet Method and Chapter 5, Shotcrete Crew.

1.05 SUBMITTALS

A. Manufacturer's Data

Current printed specifications with application and installation instruction for proprietary materials including concrete admixtures.

B. Shop Drawings

Section and plan views showing all proposed construction joints.

C. Design of Concrete Mixes

1. Contractor shall be responsible for and pay for design of concrete mixes for each type of concrete specified. Design of concrete mixes shall be performed by a Testing Laboratory selected by Contractor and approved by the Owner. Design methods to be in accordance with ACI 318.
2. Make three trial mixes using aggregate proposed.
3. Check mix design and revise, if necessary, wherever changes are made in aggregate or in surface water content of aggregate or workability of concrete. Slump shall be the minimum to

produce workable mix. Laboratory shall prescribe minimum quantity of water.

4. Forward two copies of design mix to Owner's Representative for approval.

D. Shotcrete Samples

Representative samples of materials for materials testing, mix proportion testing, and finish. Provide on site minimum one (1) 48" x 48" 6" thick sample (not part of finished project) of shotcrete transition (7' Radius). If sample is not approved, Contractor must remove and replace another sample for approval.

1.06 DELIVERY, HANDLING, AND STORAGE

- A. Properly deliver and handle materials to prevent contamination, segregation or damage to materials.
- B. Store cement in weather tight enclosures to protect against dampness and contamination.
- C. Prevent segregation and contamination of aggregates by proper arrangement and use of stockpiles.
- D. Store admixtures properly to prevent contamination, evaporation, or other damage.

PART 2 - PRODUCTS

2.01 CONCRETE MATERIALS

- A. Portland Cement: ASTM C150, Type I or II, one brand only.
- B. Fly Ash: ASTM C618
- C. Normal Weight Aggregates: ASTM C33 and as herein specified.
 1. Batch fine coarse aggregates separately to avoid segregation.
 2. Aggregates shall be free from clay, mud, loam, or other deleterious substances.

3. Dune sand, bank run sand, and manufactured sand are not acceptable for fine aggregate.
4. Coarse aggregate shall be clean, uncoated, heavy media processed aggregate of crushed stone or river washed aggregate.

2.02 ACCESSORIES

- A. Water: Fresh, clean, potable, and free of deleterious acids, mixing, and curing water, as available from Owner. Transport as required.
- B. Admixtures: Use only accepted admixtures meeting the following requirements:
 1. Chemical Admixtures: ASTM C494
 2. Air-entraining Admixtures: ASTM C260
- C. Expansion Joints: See Cast-In-Place Concrete - Section 03 30 00.

2.03 PROPORTIONING AND DESIGN OF CONCRETE MIXES

- A. Mix

Prepare design mix to achieve an in-place 28 day compressive strength of 4,000 pounds per square inch. Maximum aggregate size shall not exceed 3/8 inch. Unit weight of in-place shotcrete shall be 494 pounds per cubic yard. Contract to pay for and use an independent Testing Agency acceptable to the Owner's Representative to prepare and report the proposed mix design.
- B. Test Data

Submit for acceptance proportioning and test data from prior experience if available. If data from prior experience are not available or accepted, make and have tested specimens from three or more different mix proportions in accordance with pre-construction testing requirements of this Specification.
- C. Strength

Selected mix proportions on the basis of compressive strength tests of specimens shall be cut from the shotcrete test panels not earlier than 5 days after shotcreting. For mix acceptance purposes, average core strengths shall be least equal to f'_c for cores with L/D of 2.0. For cores with L/D between 1.0 and 2.0, use correction factors given in ASTM C42.

D. Review

Mix design shall be reviewed for acceptance by Owner's Representative.

2.04 CONCRETE APPLICATION EQUIPMENT

A. For Wet Mix Shotcrete

1. Mixing Equipment: Capable of thoroughly mixing aggregate, cement and water in sufficient quantity to maintain continuous placement.
2. Ready-mixed Concrete: ASTM C94, except that it may be delivered to the site in the dry state if the equipment is capable of adding the water and mixing it satisfactorily with the dry ingredients.
3. Air Supply: Clean air adequate for maintaining sufficient nozzle velocity for parts of work, and for simultaneous operation of blow pipe for cleaning away rebound.
4. Delivery Equipment: Capable of discharging aggregate-cement-water mixture accurately, uniformly, and continuously through delivery hose.

PART 3 -EXECUTION

3.01 INSPECTION

A. Examination

Examine concrete formwork and verify that it is true to line and dimension, adequately braced against vibration, and constructed to permit escape of air and rebound but to prevent mortar leakage during shotcreting. Correct deficiencies.

B. Inspection

Inspect reinforcement steel and items to be embedded in concrete. Correct any deviations from the accepted shop drawings.

C. Notification

Notify other trades involved in ample time to permit the proper installation of their work. Cooperate in setting such work.

D. Existing Surfaces

Examine existing concrete surfaces for unsound material. Correct deficiencies.

3.02 PREPARATION FOR INSTALLATION OF CONCRETE

A. Forms

Use a form-coating material on removable forms to prevent absorption of moisture and to prevent absorption of moisture and to prevent bond with shotcrete.

3.03 CONCRETE BATCHING AND MIXING

A. Proportions

Mix proportions shall be controlled by weight batching. Contractor's Testing Laboratory shall maintain quality control records during shotcrete production and make those records available to Owner's Representative.

3.04 CONCRETE PLACEMENT

A. Placement

Use suitable delivery equipment and procedures that will result in shotcrete in place meeting the requirements of this Specification. Determine operating procedures for placement in, extended distances, and around any obstructions where placement velocities and mix consistency must be adjusted.

B. Placement Techniques

Do not place shotcrete if drying or stiffening of the mix takes place at any time prior to delivery to the nozzle.

1. Control thickness, method of support, air pressure, and/or water content of shotcrete to preclude sagging or sloughing off. Discontinue shotcreting or provide suitable means to screen the nozzle stream if wind or air currents cause separation of the nozzle stream during placement.

2. Hold nozzle as perpendicular to surface as work will permit, to secure maximum compaction with minimum rebound.
3. In shotcreting walls, begin application at bottom. Ensure work does not sag.
4. Layering
 - a. Build up layers by making several passes of nozzle over work area.
 - b. Broom or scarify the surface of freshly placed shotcrete to which, after hardening, additional layers of shotcrete are to be bonded. Dampen surface just prior to application of succeeding layers.
 - c. Allow each layer of shotcrete to take initial set before applying succeeding layers.
 - d. Use radial templates to insure exact radii from flat bottom of skate park deck and coping. Template shall be fabricated from steel or $\frac{3}{4}$ " plywood. Check every horizontal foot when applying shotcrete for conformance of intended wall radii. Brace template and place levels at arc to tangent connections to insure no kinks will be formed. Kinks at the bottom of bowls will not be acceptable. Slumping of the shotcrete causing coping setback will not be acceptable. Contractor to submit shop drawings for all templates to be used on the project.
5. Placement around Reinforcement
 - a. Hold the nozzle at such distance and angle to place materials behind reinforcement before any material is allowed to accumulate on its face. In the dry-mix process, additional water may be added to the mix when encasing reinforcement to facilitate a smooth flow of material behind the bars.
 - b. Test to ascertain if any void or sand pockets have developed around or behind reinforcement by probing with an awl or other pointed tool after the shotcrete has achieved its initial set, by removal of randomly selected bars, or coring or other suitable standards.

3.05 REMOVAL OF SURFACE DEFECTS IN CONCRETE

A. General

Remove and replace shotcrete which lacks uniformity, exhibits segregation, honeycombing, or lamination, or which contains any dry patches, slugs, voids, or pockets. Remove defective areas.

B. Sounding

Sound work with hammer for voids. Remove and replace damaged in-place shotcrete.

3.06 CONCRETE FINISH

A. Form Finish

Smooth form finish shall consist of a smooth, hard, uniform texture with a minimum of seams.

B. Unformed Finish

Float finish on unformed face of wall shall consist of a smooth, hard, uniform surface of smooth steel trowel. Level to a tolerance of 1/10 inch in 10 feet when tested with a 10-foot steel straightedge placed on the surface horizontally, and vertically with radial template with the appropriate radii. Grinding the surfaces will not be an acceptable means of achieving the intended radii. Concrete finish work shall match the approved sample poured on site.

3.07 CONCRETE JOINTS

A. Cleaning

The entire joint shall be thoroughly cleaned and wetted prior to the application of additional shotcrete.

B. Reinforcement

Make joints perpendicular to the main reinforcement. Continue reinforcement across joints.

3.08 CONCRETE CURING AND PROTECTION

A. Initial Curing

Immediately after finishing, keep shotcrete continuously moist for at least 24 hours. Use one of the following materials or methods:

1. Ponding or continuous sprinkling.
2. Cover and keep continuously wet.

B. Final Curing

Provide additional curing immediately following the initial curing and before the shotcrete has dried. Use one of the following materials or methods:

1. Continue the method used in initial curing.
2. Materials conforming to Specifications for Sheet Materials for Curing Concrete, ASTM C 171.

C. Duration of Curing

Continue for the first 7 days after shotcreting or until specified strength is obtained. During the curing period, maintain shotcrete above 40 degrees and in a moist condition. Prevent rapid drying at the end of the curing period.

3.09 CLEAN UP

- A. At completion of Work, remove concrete stains from adjacent work, including but not limited to dissimilar paving types, walls, columns, railing posts, light fixtures, plant materials, to satisfaction of Owner's Representative.
- B. Efflorescence: Remove efflorescence [as soon as practical after it appears] as part of final cleaning.
- C. Use least aggressive cleaning techniques possible.
- D. Wear protective eye wear, gloves, and clothing suitable to work and as required by cleaner manufacturer.
- E. If proprietary cleaning agents are used, pre-wet wall, test cleaning agent on a small, inconspicuous area, and check effects prior to proceeding. Begin cleaning at the top and work down. Thoroughly rinse wall afterwards with clean water. Follow cleaner manufacturer's instructions.
- F. Do not use muriatic (hydrochloric) acid on colored concrete.

END OF SECTION 03 37 13

**SECTION 03 39 00
CONCRETE CURING**

PART 1 - GENERAL

1.01 DESCRIPTION

Provide curing material for cast-in-place concrete flatwork, and shotcrete walls (radial and angled).

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 03 10 00-Concrete Forming and Accessories
- B. Section 03 20 00-Concrete Reinforcing
- C. Section 03 30 00-Cast-In-Place Concrete
- D. Section 03 37 13-Shotcrete

1.03 SUBMITTALS

- A. Submit samples and detailed technical data of products proposed for curing use for Owner's Representative's approval.
- B. Submit certification that materials meet specification requirements.

1.04 DELIVERY AND STORAGE

Deliver materials in original sealed containers with seal and labels intact. Store in a dry place. Use materials out of original containers only.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Med-Cure™ Concrete Curing Aid & Hardener, available thru W.R. Meadows Inc., Phone (800) 342-5976.
- B. Curing Agent: ASTM C 309, non-staining, water or soy based, low or no Volatile Organic compound emitting, compatible with color admixture.

PART 3 - EXECUTION

3.01 CURING

- A. Protect concrete surfaces against rapid drying. Keep moist for necessary amount of time to reach concrete strength and inhibit moisture loss after placing.
- B. Curing Method: Spread curing paper over surfaces, lapping ends and sides a minimum of 4", and maintain in place by use of suitable weights for necessary duration, then remove.

3.02 CLEANUP

Remove debris and trash resulting from specified work.

END OF SECTION 03 37 00

**SECTION 05 50 00
METAL FABRICATIONS**

PART 1 - GENERAL

1.01 SCOPE

Provide labor, materials and equipment for the installation of the Site Metal Work as shown on the drawings and as specified.

1.02 RELATED SECTIONS

- A. Section 03 10 00 - Concrete Forming and Accessories
- B. Section 03 20 00 - Concrete Reinforcing
- C. Section 03 30 00 - Cast-In-Place Concrete
- D. Section 03 37 13 - Shotcrete

1.03 QUALITY ASSURANCE

- A. Qualifications of Fabricators: Experienced in fabrication of miscellaneous metals.
- B. Qualifications of Welders: Welding shall be done only by certified welding operators currently qualified according to AWS D1.1.
- C. Qualifications of Workmen: Provide at least one person who shall be present at all times during execution of this portion of the Work, and who shall be thoroughly familiar with the type of materials being installed, the referenced standards, the requirements of this Work, and who shall direct all work performed under this Section. Welds indicated may be made in shop or field with approval.
- D. Reference Standards:
 - 1. Steel: Meet requirements of AISC "Specifications of Architecturally Exposed Structural Steel," latest edition.
 - 2. Welding: Meet requirements of AWS "Structural Welding Code," D1.1, latest edition.

1.04 SUBMITTALS

- A. Shop Drawings:

1. Submit shop drawings for all custom fabricated items under this section. Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners and accessories. Indicate welded connections using standard AWS welding symbols.
2. Verification: Verify all measurements at the job. Show dimensions, sizes, thicknesses, gauges, finishes, joining, attachments, and relationship of work to adjoining construction. Where items must fit and coordinate with finished surfaces and/or constructed spaces, take measurements at site and not from drawings.
3. Coordination: Coordinate with work of Cast-In-Place Concrete Section 03 30 00.

B. Samples

Required for all Coping and Edging of concrete work. Submit finish metal samples for final finish selection. Submit prior to delivery to site. Attach name, address of manufacturer and/or supplier to each sample.

1.05 DELIVERY, STORAGE AND HANDLING

A. Coordination

Coordinate with work of Cast-In-Place Concrete Section 03 30 00.

B. Storage of Materials

Materials which are stored at the project site shall be above ground on platforms, skids, or other supports. Protect steel from corrosion. Store other materials in a weather-tight and dry place until ready for use.

C. Protection

1. Use all means necessary to protect miscellaneous metals before, during and after installation and to protect the installed work and materials of all other trades.
2. Protect any adjacent materials or areas below from damage due to weld splatter or sparks during field welding.

- D. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative and at no additional cost to the Owner.

1.06 JOB CONDITIONS

- A. Examine existing conditions in which the work is to be installed. Notify Owner's Representative if conditions are unacceptable to begin work.
- B. Do not proceed with the work until unsatisfactory conditions have been corrected.

1.07 COORDINATION

- A. Templates and Built-ins: Furnish all anchors, fastenings, sleeves, setting templates and layouts affecting or installed in the work of other trades.
- B. Delivery: Where items must be incorporated or built into adjacent work, deliver to trade responsible for such work in sufficient time that progress of work is not delayed. Be responsible for proper location of such items.

1.08 JOB SITE SAMPLE

- A. Contractor to provide fabricated, on site sample of metal item(s), complete with approved finish, for review by Owner and Owner's Representative before fabrication of total quantities. Any fabrication of project item(s) by Contractor before Owner review and approval is strictly at his own risk and expense.
- B. Approved sample(s) shall be used as the standard of workmanship and shall remain on site until work has been completed and approved by the Owner's Representative.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. 2" ROUND STEEL PIPE COPING-O.D. 2.375, Thickness .154: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- B. 3" ROUND STEEL PIPE COPING-O.D. 2.375, Thickness .154: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- C. 1"X1" SQUARE STEEL TUBING- O.D. 2"X2", Thickness .188: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).

- D. 2”X2” SQUARE STEEL TUBING- O.D. 2”X2”, Thickness .188: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- E. 2”x6” STEEL PIPE COPING: O.D. 2”X4”, Thickness .188: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- F. 2”X2” ANGLE IRON STAIR NOSING- O.D. Thickness .188: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- G. 4”X4” ANGLE IRON BENCH/ LEDGE PROTECTION- O.D. Thickness .188: ASTM A-53, Type E or S (Fy=35 ksi), Grade B or A-501 (Fy=36 ksi).
- H. WELDING RODS: E-70 series low hydrogen unless otherwise noted on drawings.

2.02 GROUT

Embeco® 636 Plus Grout Non-Shrink Mortar Metallic-Aggregate Grout by Degussa Building Systems, Phone (800) 433-9517; Ferrolith® G Redi-Mix Grout by Sonneborn Building Products.

2.03 OTHER MATERIALS

All other materials, not specifically described but required for a complete and proper installation of miscellaneous metals, shall be new, first quality of their respective kinds and subject to the approval of the Owner's Representative.

PART 3 - EXECUTION

3.01 EXISTING CONDITIONS

A. Inspection

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

B. Discrepancies

In the event of discrepancy, immediately notify the Owner's Representative.

3.02 COORDINATION

- A. General: Carefully coordinate with all other trades to insure proper and adequate interface of the work of other trades with the work of this Section.
- B. Delivery: Insure timely delivery of all metal fabrications which must be installed in other work so as not to delay that work.

3.03 INSTALLATION

- A. General
 - 1. Install metal fabrications in strict accordance with the Drawings, the approved Shop Drawings, and all pertinent codes, regulations and standards.
 - 2. Obtain Owner's Representative review prior to site cutting or making adjustments which are not part of scheduled work.
 - 3. Install items square and level, accurately fitted and free from distortion or defects.
 - 4. Align all metal fabrications as shown on the Drawings, and where vertical or horizontal members are shown, align them straight, plumb and level within a tolerance of one in 500.
 - 5. Make provisions for erection stresses by temporary bracing. Keep work in alignment.
 - 6. Replace items damaged in course of installation.
 - 7. Perform field welding in accordance with AWS D1.1
 - 8. After installation, grind and touch-up field welds.

3.04 WORKMANSHIP

- A. Layout

Set all work plumb, true, rigid, and neatly trimmed out. Miter corners and angles of exposed molding and frames unless otherwise noted.
- B. Fitting

Fit exposed connections accurately together to form tight hairline joints.

C. Labor

Employ only workmen specifically skilled in such work.

3.05 FABRICATION

- A. Shop assemblies in largest practicable dimensions, making members true to length so assembling may be done without fillers.
- B. Provide all surfaces free of file marks, dents, hammer marks, wire edges or any unsightly surface defects.

D. STEEL PIPE COPING

Roll pipe to conform to top radius curve of each bowl and ledge as shown on drawings. Refer to drawings for relational tolerance to concrete surface and other steel.

3.06 ATTACHMENTS AND REINFORCEMENTS

Do all cutting, shearing, drilling, punching, threading, tapping, etc., required for site metalwork or for attachment of adjacent work. If applicable, drill or punch holes; do not use cutting torch.

3.07 OTHER CONNECTORS

Make all permanent connections in ferrous metal surfaces using welds where at all possible; do not use bolts or screws.

3.08 WELDING

- A. Preparation: Remove all rust, paint, scale and other foreign matter. Wire brush all flame-cut edges. Clamp members as required and alternate welds, all as necessary to prevent warping or misalignment.

B. Exposed Welds

Uniformly grind smooth (no tolerance) all welds normally exposed to view and feel in the finished work.

C. Faulty and Defective Welding

Chip out and replace all welding showing cracks, slag inclusion, lack of fusion, bad undercut or other defects ascertained by visual or other means of inspection. Replace and re-weld at no cost to Owner.

D. Field Welding

1. Procedure

Comply with AWS code of manual shielded metal-arc welding, appearance and quality of welds made, and methods used in correcting welding work.

2. Protection

Protect all adjacent surfaces from damage due to weld sparks, spatter, or tramp metal.

3.09 SURFACE TREATMENT AND PROTECTIVE COATINGS

A. Cleaning

1. Thoroughly clean all mill scale, rust, dirt, grease and other foreign matter from ferrous metal prior to any galvanizing, or painting.
2. Conditions which are too severe to be removed by hand cleaning, shall be cleaned using appropriate methods for solvent cleaning, power tool cleaning and brush-off blast cleaning.

B. Exterior Ferrous Metal

1. Grind smooth all welds, burrs, and rough surfaces. Clean and hot-phosphate treat completed assembly. Hot phosphate treatment not required on items which are not exposed in the finish work or on those items where size prohibits such treatment.
2. GALVANIZE ferrous metal items unless specified.
3. Indicate on Shop Drawings where treatment is proposed to be omitted, if any.

3.10 CLEAN-UP

- A. Keep all areas of work clean, neat and orderly at all times. Keep paved areas clean during installation.
- B. Clean up and remove all debris from the entire work area prior to Final Acceptance to satisfaction of Owner's Representative.

END OF SECTION 05 50 00

SECTION 09 90 00
PAINTING

PART 1 – GENERAL

1.1 GENERAL CONDITIONS

- A. Requirements of the Contract Documents, including but not limited to, the General, Special, and Technical Provisions, apply to work in this Section with the same force and effect as though repeated in full herein.

1.2 SCOPE OF WORK

- A. Furnish materials, labor, transportation, services, and equipment necessary to install all Painting for the skate park as indicated on scope of work contract and shown on drawings and as specified herein.
- B. This Section includes surface preparation and field painting of the following:
 - 1. Miscellaneous exposed exterior items and surfaces.
- C. Paint exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces whether or not schedules indicate colors. If the schedules do not indicate color or finish, CONTRACTOR / SKATE PARK DESIGNER shall select from standard colors and finishes available.
 - 1. Painting includes field painting of exposed steel and iron work, and primed metal surfaces of mechanical and electrical equipment.
- D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
 - 1. Finished metal surfaces include the following if used:
 - a. Stainless steel.
 - b. Bronze and brass.
 - c. Iron
 - 2. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.
- B. Related Work:
 - 1. Section 05 50 00 – Metal Fabrications

1.3 REFERENCES

- A. Comply with the applicable reference specifications as specified in the GENERAL PROVISIONS and in accordance with applicable laws, codes and regulations required by the City of San Diego, CA. Comply with the current provisions of the following Codes and Standards:
- B. ASTM - American Society for Testing and Materials
- C. IBC – International Building Code
- D. SSPC – Society for Protective Coatings: “Steel Structures Painting Manual,” latest edition.

1.4 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
 - 1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
 - 2. Eggshell refers to low-sheen finish with a gloss range between 5 and 20 when measured at a 60-degree meter.
 - 3. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60-degree meter.
 - 4. Semi-gloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-degree meter.
 - 5. Full gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60-degree meter.

1.5 SUBMITTALS

- A. Product Data: For each paint system specified. Include block fillers and primers.
 - 1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - 2. Manufacturer's Information: Provide manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material proposed for use.
 - 3. Certification by the manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs).
- B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.
 - 1. After color selection, CONTRACTOR will furnish color chips for surfaces to be coated.
- C. Samples for Verification: Of each color and material to be applied, with texture to simulate actual conditions, on representative Samples of the actual substrate.
 - 1. Provide stepped Samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing Samples for review. Resubmit until required sheen, color, and texture are achieved.
 - 2. Provide a list of materials and applications for each coat of each sample. Label each sample for location and application.
 - 3. Submit Samples on the following substrates for CAIFORNI SKATEPARKS / SKATE PARK DESIGNER review of color and texture only:
 - a. Ferrous Metal: Provide two 4-inch- (100-mm-) square samples of flat metal and two 8-inch- (200-mm-) long samples of solid metal for each color and finish.

1.6 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
 - 1. Product name or title of material.
 - 2. Product description (generic classification or binder type).

3. Manufacturer's stock number and date of manufacture.
 4. Contents by volume, for pigment and vehicle constituents.
 5. Thinning instructions.
 6. Application instructions.
 7. Color name and number.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
- C. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.8 PROJECT CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 deg F (10 and 32 deg C).
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 deg F (7.2 and 35 deg C).
- C. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in the paint schedules.

2.2 MATERIALS

- A. Material Compatibility: Provide fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.
- C. Colors: Provide color selections made by SKATE PARK DESIGNER.

PART 3 – EXECUTION / CONSTRUCTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with the Applicator present, under which painting will be performed for compliance with paint application requirements.

1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
 2. Start of painting will be construed as the Applicator's acceptance of surfaces and conditions within a particular area.
- B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
1. Notify CONSTRUCTION PROJECT MANAGER about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.
1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
1. Provide barrier coats over incompatible primers or remove and re-prime.
 2. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
 - a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 3. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with the Steel Structures Painting Council's (SSPC) recommendations.
 - a. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.
- D. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
 2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
 3. Use only thinners approved by paint manufacturer and only within recommended limits.

3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
1. Paint colors, surface treatments, and finishes are indicated in the schedules.

2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
 3. Provide finish coats that are compatible with primers used.
 4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, covers, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
 5. Sand lightly between each succeeding enamel or varnish coat.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
1. The number of coats and the film thickness required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
 2. Omit primer on metal surfaces that have been shop primed and touchup painted.
 3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.
- C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
 2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool as recommended by the manufacturer for the material and texture required.
 3. Spray Equipment: Use airless spray equipment with orifice size as recommended by the manufacturer for the material and texture required.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of the entire system as recommended by the manufacturer.
- E. Fillers: Apply fillers at a rate to ensure complete coverage of pores filled.
- F. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or

unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.
- G. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- H. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.4 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
- B. After completing painting, clean paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.5 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by CITY and/or CONTRACTOR.
- B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
 - 1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.6 EXTERIOR PAINT SCHEDULE

- A. Ferrous Metal: Provide the following finish systems over exterior ferrous metal. Primer is not required on shop-primed items.
 - 1. Semi-gloss, Acrylic-Enamel Finish: 2 finish coats over a rust-inhibitive primer.
 - a. Primer: Rust-inhibitive metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils (0.033 mm).
 - 1) Dura Clad 55 High Solids Universal Alkyd Primer by Duron.
 - 2) 433 RustPlate Rust Inhibitive Primer by Kurfees Coating.
 - 3) Fuller: 621-04 Blox-Rust Alkyd Metal Primer.
 - 4) Glidden: 5205 Glid-Guard Tank & Structural Primer, Red.
 - 5) Moore: IronClad Retardo Rust-Inhibitive Paint #163.
 - 6) PPG: 6-208 Speedhide Interior/Exterior Rust Inhibitive Steel Primer.
 - 7) P & L: S/D 1009 Suprime "9" Interior/Exterior Alkyd Metal Primer.
 - b. First and Second Coats: Semi-gloss, exterior, acrylic-latex enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils (0.066 mm).
 - 1) Devoe: 17XX Wonder-Shield Semi-Gloss Exterior Acrylic Latex House and Trim Paint.
 - 2) Fuller: 664-XX Weather King II Semi-Gloss House & Trim Paint.
 - 3) Glidden: 6600 Series Spread Ultra Exterior Gloss Latex House & Trim Paint.
 - 4) Moore: MoorGlo Latex House & Trim Paint #096.
 - 5) PPG: 78 Line Sun-Proof Semi-Gloss Acrylic Latex House and Trim Paint.
 - 6) P & L: Z/F 3100 Series Aqua Royal Latex House & Trim Finish.

END OF SECTION 09 91 00

**SECTION 31 00 00
EARTHWORK**

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. Requirements of the Contract Documents, including but not limited to, the General, Special, and Technical Provisions, apply to work in this Section with the same force and effect as though repeated in full herein.
- B. Soil Report: The recommendations within the project's soil report shall be incorporated into this specification. In the event of a conflict between the geotechnical report and these specifications and the project plans, immediately consult the project's Civil Engineer or Project Manager. To prepare an accurate bid, it is suggested that bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

1.2 SCOPE OF WORK

- A. Furnish materials, labor, transportation, services, and equipment necessary to perform all earthwork operations related to the skate park as indicated on the Drawings complete as shown and as specified herein.
- B. The work of this Section includes all earthwork required for construction of the work. Such earthwork shall include, but not be limited to, the loosening, removing, loading, transporting, depositing, and compacting in its final location of all materials wet and dry, as required for the purposes of completing the work specified in the Contract Documents, which shall include, but not be limited to, the furnishing, placing, and removing of sheeting and bracing if necessary to safely support the sides of all excavation; all pumping, ditching, draining, dewatering, and other required measures for the removal or exclusion of water from the excavation; the supporting of structures above and below the ground; all backfilling around structures and all backfilling of trenches and pits; the disposal of excess excavated materials; alluvial removals, selective grading of expansive soils, soil importing, borrow of materials to make up deficiencies for fills, and all other incidental earthwork, all in accordance with the requirements of the Contract Documents.
- C. Related Work:

1. Section 31 23 13 – Sub-grade Preparation

1.3 REFERENCES

- A. Comply with the applicable reference specifications as specified in the General Provisions. Comply with the applicable reference specifications as specified in the GENERAL PROVISIONS and in accordance with applicable laws, codes and regulations required by the Owner's Representative. Work shall comply with the rules and regulations of local, state and federal agencies having jurisdiction. Nothing contained herein shall be construed as permitting work that is contrary to such rules, regulations and codes.
- B. Comply with the current provisions of the following Codes and Standards:
 - 1. ASTM - American Society for Testing and Materials.
 - 2. Standard Specifications (as specified in the General Provisions)
 - 3. Latest Uniform Standards issued by the City or County.

1.4 SUBMITTALS

- A. Submittals, including samples of materials, shall be in accordance with the GENERAL PROVISIONS.
- B. Samples: Submit a one-half cubic foot sample of proposed import soils (if required) per the project's soil report for Owner's Representative's review and approval; identify location and source of import soil.

1.5 QUALITY ASSURANCE

- A. General: All soils testing and inspection during earthwork operations, other than agricultural suitability and chemical analysis of proposed soils, will be done by a testing laboratory of the ENGINEER's choice at the contractor's expense except as specified in Paragraph 1.5.C below. Contractor shall be responsible for scheduling the tests and inspections and all tests performed on project soil will be given to the Owner's Representative for review.
- B. Where soil material is required to be compacted to a percentage of maximum dry density, the maximum dry density at optimum moisture content will be determined in accordance with the latest version of ASTM D 1557. In-place field density tests will be performed in accordance with ASTM D 1556, (sand cone) and/or ASTM D 2922 and ASTM D 3017 (nuclear gauge). The number and location of field density tests will be determined by the ENGINEER.

- C. In case the tests of the fill or backfill show non-compliance with the required density, the CONTRACTOR shall accomplish such remedy as may be required to ensure compliance. Subsequent testing to show compliance shall be by a testing laboratory selected by the ENGINEER and shall be at the CONTRACTOR's expense. All imported fill material not specified in the contract shall be tested at the CONTRACTOR's expense and approved by the ENGINEER.

1.6 PROJECT CONDITIONS

- A. Existing Conditions: The existing topographic conditions are shown on the drawings for reference only. Upon beginning the earthwork, Contractor represents that he has inspected the site and satisfied himself as to actual grades and levels and the true conditions under which the work is to be performed. Promptly notify the Owner's Representative of unexpected subsurface conditions. The Contractor is required to submit a "Site Acceptance" letter before earthwork operations begin.
- B. Soil Classification: Excavated materials are not classified as to type.

1.7 PROTECTION

- A. Protection
 - 1. Protect excavations by shoring, bracing, sheeting, underpinning, or other methods, as required to prevent cave-ins or loose dirt from entering excavations. Barricade open excavations and post warning lights at work adjacent to public streets and walks.
 - 2. Cover holes and trenches when work is not in progress. Fence or barricade changes of plane more than 45 degrees horizontally and more than 3 feet vertically.
 - 3. Maintain bench marks, monuments, and other reference points. If disturbed or destroyed, replace as directed.
 - 4. Protect existing berms and slopes from disruption. If slopes are disturbed, return to existing conditions at no additional cost to the Owner.
 - 5. Underpin adjacent structure(s), including utility service lines, which may be damaged by excavation operations.
 - 6. Protect existing natural areas and landscape improvements from damage.

7. Promptly repair damage to adjacent facilities caused by earthwork operations. Cost of repair at Contractor's expense.

PART 2 - MATERIALS

2.1 SUITABLE FILL AND BACKFILL MATERIAL REQUIREMENT

- A. General: Fill, backfill, and embankment materials shall be suitable selected or processed clean, fine earth, rock, or sand, and free from grass, roots, brush, or other vegetation; contamination; or deleterious material. The size, gradation, and properties of the materials shall be in accordance with the requirements of the Soil Report and these specifications.
- B. Suitable materials may be obtained from onsite excavations, may be processed onsite materials, or may be imported provided these materials meet all the requirements in the Contract Documents. If imported materials are required to meet the requirements of this Section or to meet the quantity requirements of the project, the CONTRACTOR shall provide the imported fill materials and the required conformance reports of test results at no additional expense to the AGENCY, unless a unit price item is included for imported materials (including the appropriate required testing reports) in the bidding schedule.

2.2 FILL FOR MISCELLANEOUS LANDSCAPE WORK

- A. General Landscape Construction
 1. Mound Construction: Fill material similar to existing on-site soil with all rocks, etc., over 4" in diameter removed prior to placement. No rocks larger than 2" diameter are allowed on top 6" of mound.
 2. Miscellaneous Landscape Filling: Fill material similar to existing on-site soil with all rocks, etc. over 2" in diameter removed prior to placement.
 3. Remove and dispose of rocks, etc. removed during soil processing offsite.
 4. Imported fill material shall be inspected, tested, and approved by the Owner's Representative prior to use in work. Copy of tests will be given to the City.

2.3 PLANTING SOIL FOR PLANT BACKFILL

Native soil shall be tilled and free of noxious weeds and chemicals. Soil must be approved as growing medium from Soils Lab Report with any supplementary additives as directed by Soils Lab Report. Copy of Soils Lab Report will be given to the Owner's Representative.

2.4 USE OF FILL AND BACKFILL MATERIAL TYPES

- A. The CONTRACTOR shall use the types of materials as designated on the Drawings and herein for all required fill, backfill, and embankment construction hereunder.
- B. Where these Specifications conflict with the requirements of any local agency having jurisdiction, or with the requirements of a material manufacturer, the ENGINEER shall be immediately notified. In case of conflict therewith, the CONTRACTOR shall use the more stringent requirement, as determined by the ENGINEER.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Establish extent of grading and excavation by area and elevation. Designate and identify datum elevation and project engineering reference points. Set required lines, levels and elevations.
- B. Do not cover or enclose work of this Section before obtaining required inspections, tests, approvals, and location recording.

3.2 EXISTING UTILITIES

- A. Before starting grading and excavation, establish the location and extent of underground utilities in the work area. Exercise care to protect existing utilities during earthwork operations. Perform excavation work near utilities by hand and provide necessary shoring, sheeting, and supports as the work progresses.
- B. Maintain, protect, relocate, or extend, as required, existing utility lines to remain which pass through the work area. Pay costs for this work, except as covered by the applicable utility companies.
- C. Protect active utility services uncovered by excavation. Notify respective utility companies of damage caused to active utilities immediately.

- D. Remove abandoned utility service lines from areas of excavation. Cap, plug, or seal abandoned lines and identify termination points at grade level with markers.
- E. Accurately locate and record abandoned and active utility lines rerouted or extended on project record documents.

3.3 SITE GRADING – GENERAL

- A. Perform grading within contract limits, including adjacent transition areas, to new elevations, levels, profiles, and contours indicated. Provide uniform levels and slopes between new elevations and existing grades.
- B. Obtain approval of scarified subgrade surfaces by Owner's Representative prior to filling operations. Scarify, dry, and compact soft and wet areas; remove and replace unsuitable subgrade materials with an approved fill material. Take corrective measures before placing fill materials.
- C. Thoroughly scarify existing soil surface to a depth of 10" and verify scarification with Owner's Representative prior to placing fill material in mounded areas.
- D. Spread approved fill material uniformly in layers not greater than 12" of loose thickness over entire fill zones of planting areas.
 - 1. Lift thickness requirements may be modified by Owner's Representative to suit equipment and materials or other conditions when required to assure satisfactory compaction.
 - 2. Place and compact each layer of fill before placing additional fill material. Repeat filling until proposed grade, profile or contour is attained.
 - 3. Suspend fill operations when satisfactory results cannot be obtained because of environmental or other unsatisfactory site conditions. Do not use over-saturated fill materials. Do not place fill material on over-saturated subgrade surface.
 - 4. Grade surfaces to assure positive drainage and to prevent ponding and pockets of surface drainage. Install drainage swales as indicated on the Drawings.
 - 5. Protect finish graded areas from traffic and erosion. Keep free of trash and debris. Repair and reestablish grades in settled, eroded and damaged areas.

- E. If, in the opinion of the Owner's Representative, the completed site grading does not reflect the Contract Documents, an independent surveyor may be hired to verify the grades. If the grades are correct, the Owner will pay for the survey. If the grades are incorrect, the cost of the survey will be deducted from the Contract price.

3.4 BACKFILLING / FILLING FOR PAVING & WALLS

- A. Before filling, remove debris, large rocks, formwork and loose material.
- B. Proof-roll areas to receive fill with rubber tired roller of sufficient weight. Weak areas or areas where excessive pumping is noted shall be removed, and if required by Owner's Representative, replaced with select fill.
- C. Prior to placing fill, scarify surface to a depth of 6 inches. Moisture content of loosened material shall be such that first layer of fill will readily bond to surface.
- D. Top 6 inches shall be free from rocks larger than 3 inches diameter.
- E. Place in maximum 8-inch lifts and compact per ASTM D 1557 at optimum moisture content (-1% to +3%). This lift and compaction requirement does not apply to planting areas.
- F. Moisten fill to allow drying to correct moisture content before compaction. Do not place fill on subgrade that is over-saturated.
- G. Allowing for total thickness of finish paving and base material, fill under paving to bring subgrade to proper elevation.
- H. Soft areas that develop under construction operations shall be scarified, aerated or moistened. Compact to full depth required to obtain specified density for each layer.

3.5 EXCAVATING

- A. It is the Contractor's responsibility to investigate the likelihood of caliches or hard rock excavation. The Owner will not provide any additional compensation to the Contractor for hard rock or caliches excavation.

3.6 FINISH GRADING

- A. Grade uniformly with rounded surfaces at tops and bottoms of abrupt changes in plane. Hand grade steep slopes, areas that are inaccessible for machine work and areas around existing plants.

- B. Slope graded surfaces to drain water away from structures, walls, etc.; minimum slope is 1/4 inch per foot.
- C. Grade areas to elevation and slopes indicated without depressions causing pocketing of surface water or humps, producing localized runoff and erosion. Ponding of water on site is not allowed. Finish surfaces to be not more than 0.10 foot above or below established grade elevation unless approved in writing by Owner's Representative.
- D. See Section on Soil Preparation and Soil Mixes for additional fine grading requirements.

3.7 DRAINAGE

- A. Provide drainage of the working area at all times.

3.8 DISPOSAL OF WASTE MATERIALS

Refer to Construction and Demolition Waste Management Specification for actions required in regards to the disposal and diversion of all excess/ waste materials, including excess excavated material and rock from the site

3.9 CLEANING

- A. Upon completion of earthwork operation, clean areas within contract limits, remove tools and equipment.
- B. Provide site clear, clean, free of debris and suitable for site work operations.
- C. Remove and dispose of properly off site all rocks and other debris from grading operations at approved recycling centers, Reference Construction and Demolition Waste Management Specification for actions required in regards to the disposal and diversion of all excess/ waste materials.

END OF SECTION 31 00 00

**SECTION 31 23 13
SUB-GRADE PREPARATION**

PART 1 - GENERAL

1.1 GENERAL CONDITIONS

- A. Requirements of the Contract Documents, including but not limited to, the General, Special, and Technical Provisions, apply to work in this Section with the same force and effect as though repeated in full herein.

1.2 SCOPE OF WORK

- A. Furnish materials, labor, transportation, services, and equipment necessary to perform all sub-grade preparation work for the skate park as indicated on the Drawings complete as shown and as specified herein.
- B. Related Work:
 - 1. Section 31 00 00 – Earthwork
 - 2. Section 03 10 00 – Concrete Forming and Accessories
 - 3. Section 03 20 00 – Concrete Reinforcing
 - 4. Section 03 30 00 – Cast-In-Place Concrete
 - 5. Section 03 37 13– Shotcrete

1.3 SUBMITTALS

- A. Contractor to provide data indicating the total of post-industrial and post-consumer recycled aggregate base content throughout the skate park equaling the goal of 80% or more recycled content aggregate base.

1.4 REFERENCES

- A. Comply with the applicable reference specifications as specified in the GENERAL PROVISIONS and in accordance with applicable laws, codes and regulations required by Owner's Representative.
- B. Comply with the current provisions of the following Codes and Standards:
 - 1. ASTM - American Society for Testing and Materials.
 - 2. Latest Uniform Standard Specifications issued by MAG Maricopa Association of Governments

PART 2 - MATERIALS

2.1 SUITABLE MATERIALS

- A. General: Fill, backfill, and embankment materials shall be suitable selected or processed clean, fine earth, rock, or sand, and free from grass, roots, brush, or other vegetation; contamination; or deleterious material. The size, gradation, and properties of the materials shall be in accordance with the requirements of the Soil Report and these specifications.
- B. Aggregate base materials under pavements shall be crushed aggregate base material with a recycled content of 80% or more by weight which is constructed to the thickness shown or specified. The percentage composition by weight of aggregate base shall conform to the Standard Specifications.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

- A. Excavate and shape subgrade to line, grade, and cross-section shown on the Drawings.
- B. Subgrade is that area on which pavement, surfacing, base, sub-base, or a layer of other material which may be specified, is to be placed.
- C. Plow or scarify subgrade to a depth of 6" below the final subgrade elevation; and by harrowing, dry rolling and breaking clods, the earth shall be brought to finely divided condition. Remove boulders, hardened material, or rock encountered. The earth shall be uniform for the full depth and width of the subgrade.
- D. Water loose earth to a uniform depth of 4".
- E. Harrow the earth to mix the wet earth with the dry beneath, until the whole mass of loose material is at the proper state of moisture for compaction.
- F. The finished subgrade, immediately prior to placing subsequent material thereon, shall be in accordance with the Standard Specifications and project soils report.
- G. The finished surface of the subgrade, at any point, shall not vary more than 0.05' above or 0.2' below the elevation indicated on the drawings unless approved in writing by Owner's Representative.

SUB-GRADE PREPARATION

- H. The Owner will not provide any additional compensation to the Contractor for hard rock or caliches excavation. Refer to the project soils report for test boring information and analysis.

3.2 BASE

- A. Base shall be readily compacted and spread with equipment that will provide a uniform layer conforming to the planned section.

3.3 CLEANUP

- A. Upon completion of the subgrade preparation and base, remove surplus construction materials, earth and debris so that the job site is left in a neat and orderly condition.

END OF SECTION 31 23 13

**SECTION 33 40 00
STORM DRAINAGE UTILITIES**

PART 1 - GENERAL

1.01 SCOPE

Provide storm water drainage system, tie-in, and catch basins for entire skate park as shown within the construction drawings.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 31 00 00-Earthwork
- B. Section 31 23 13-Sub-Grade Preparation
- C. Section 03 10 00-Concrete Forming and Accessories

1.03 PROTECTIONS

Protect all existing tree roots, shrubs, paving and utilities from damage due to drainage excavations. Re-route piping if necessary to avoid excessive damage to existing conditions as directed by the owner's representative to avoid damage. Provide protective barrier from all open trenches per local code requirements.

1.04 COORDINATION

Coordinate all work affected by drainage operations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. PVC Drain Pipe: Manufacture in accordance with standards noted herein.
 - 1. Marking and Identification: continuously and permanently marked with manufacturer's name, pipe size, type of pipe and material, SDR number, ASTM standard number and the NSF (National Sanitation Foundation) seal.
 - 2. PVC pipe fittings shall be of the same material as the PVC pipe specified and shall be compatible with PVC pipe furnished.
 - 3. All drain pipes shall be SDR 35.
- B. Drain Inlets

1. Size -Zurn 415B 10"

PART 3 - EXECUTION

3.01 EXCAVATION

Excavate ditch no greater in width or depth than is necessary to permit construction.

3.02 BEDDING

Provide a firm foundation of uniform density throughout the entire length of the pipe. The exterior of the pipe for not less than 1/4 of its circumference shall be bedded in an earth foundation of uniform density accurately shaped to fit the outside of the pipe. The material used for bedding shall be material from on-site excavation. When rock is encountered at grade, the rock shall be removed to a depth of six inches below grade and tamped earth from the excavation shall be used to bring the elevation up to grade.

3.03 LAYING

- A. Do not place pipe in a wet trench. Keep trenches free from water.
- B. No pipe shall be laid until it has been inspected and approved by the Resident Project Inspector. Lay and joint pipes in a dry area. Lay pipe up-grade beginning at the lower end of the line.
- C. Coupling: Use approved solvent weld joint or pressure coupling. Clean pipe and fittings thoroughly of dirt, dust and moisture. Apply a light uniform coat of solvent to pipe (or compression fitting if applicable) and fitting and immediately make the connection.

3.04 BACKFILL

After the pipe has been installed and the joints completely set, material from the on-site excavation at a moisture content with which the required density can be obtained shall be placed equally along both sides of the pipe in layers not exceeding six inches loose depth. Compact each layer thoroughly by hand or pneumatic tampers to finish grade.

3.05 CONNECTION TO EXISTING DRAINAGE SYSTEM

Bore into the surface. Do not extend the pipe into structure. Construct a concrete collar not less than six inches greater in diameter than pipe and six inches long, and bond to the structure.

3.06 CLEAN UP

- A. Clean site daily of trash and debris resulting from construction operations.
- B. Upon completion of the work, remove spoil piles, surplus material, and equipment from the site. Restore ground surface to original condition.

END OF SECTION 33 40 00