



Section 00 01 01 PROJECT MANUAL & TITLE PAGE

**INCLUDING
CONTRACT DOCUMENTS
AND
SPECIFICATIONS**

FOR THE

**PUBLIC IMPROVEMENT
DESCRIBED AS:**

Parking Lot Rehabilitation At Emerald Cove Park

Project Number EC-1-2526

4303 Patton Way
Bakersfield, California

SECTION 00 01 10

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SECTION 00 11 13 ADVERTISEMENT FOR BIDS

NOTICE IS HEREBY GIVEN that NORTH OF THE RIVER RECREATION AND PARK DISTRICT, hereinafter referred to as "NOR," will receive sealed Bids at NOR'S Administrative Complex, 3825 Riverlakes Drive, Bakersfield, Kern County, California, until 3:00 P.M., PST, **August 11, 2025** for the public improvements consisting, in general, of the following: **Parking Lot Rehabilitation Project at Emerald Cove Park.**

This Project requires a Class A-General Engineering Contractor or C-12 Earthwork and Paving Contractor's License.

Bidders are notified of requirements by California Department of Industrial Relations for the registration of contractors and subcontractors; project compliance monitoring and enforcement by the Department of Industrial Relations; posting of job site notices prescribed by regulation; as well as compliance with all prevailing wage and apprenticeship standards pursuant to California Labor Code part 7, Chapter 1, Article 2, Sections 1725.5, 1771.1, 1771.4, and 1777.5, et. Al.

Bidders are further notified that all of the above-described Public Work shall be performed pursuant to and in accordance with Contract Documents provided by NOR. Said Contract Documents are available on NOR's website at <http://www.norfun.org>. NOR is not authorized to give oral explanations or interpretations of Contract Documents, and a submission of a Proposal constitutes agreement that the Bidder has placed no reliance on any such oral explanation or interpretation. However, NOR may, upon inquiry by Bidder, orally direct the Bidder's attention to the specific provision of the Contract Documents that cover the subject of the inquiry.

Bidders are further notified that each Bid must be made on the Proposal Form furnished by NOR; Bids must be received on or before the date and hour above specified or such Bid will be rejected; all Bids timely received by NOR will be opened and publicly read at the above address and time.

Each Bid shall be accompanied by a Certified Check or Bidder's Bond in the amount of ten (10) percent of the maximum total Bid. In addition, the successful Bidder shall be required to furnish a Faithful Performance Bond and a Labor and Materials Bond in the amounts set forth in the Specifications and General Conditions. In accordance with the provisions of Government Code Section 4590, securities may be submitted for any monies which NOR may withhold pursuant to the terms of the Contract to insure performance.

Bidders are further notified it shall be mandatory upon the Contractor to whom a Contract is awarded, and upon all Subcontractors under him, to pay not less than the general prevailing rates of per diem wages to all workmen in the execution of the Contract. Pursuant to the provisions of the California State Labor Code, and Local Laws thereto applicable, the said Board of Directors has ascertained the prevailing rate of wages in the locality where this Work is to be performed, for each craft and/or type of workman or mechanic needed to perform the Work of this Contract. General Prevailing Wage Rates shall be those rates pertaining to Kern County as published by the Director of Industrial Relations pursuant to California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773, 1773.1, and 1777.5. The minimum wage rates applicable for each craft, classification or type of worker needed for the aforesaid Public Work is set forth in a prevailing wage schedule available at California Department of Industrial Relations (www.dir.ca.gov/dlsr/pwd/index.htm) website.

Copies of the Prevailing Wage Schedules may be obtained from the Division of Labor Research and Statistics, P.O. Box 420603, San Francisco, CA. 94142, (415) 703-4774.

NOR's Board of Directors reserves the right to accept or reject any and all Bids and to waive any informality or irregularity in any bid.

Dated: _____

/s/ Janett Miller

CLERK OF THE BOARD OF DIRECTORS OF NORTH
OF THE RIVER RECREATION AND PARK DISTRICT



TO: Potential Bidder

FROM: Josh Herrboldt, QSP
Administrative Coordinator – Contracts and Procurement
North of the River Recreation & Park District
3825 Riverlakes Drive
Bakersfield, CA 93312
bids@norrecreation.org
(661) 392.2000

DATE: July 28, 2025

SUBJECT: Request for Bids – Parking Lot Rehabilitation at Emerald Cove Park, #EC-1-2526

North of the River Recreation and Park District (NOR) is seeking Bids for the parking lot rehabilitation at Emerald Cove Park. The Work shall be completed 45 consecutive calendar days after execution of contract.

The work generally consists of AC Reconstructions/grind-in-place, place of Class I soil, valley gutter replacement, ADA modifications, surface seal coat (two (2) coats), gutter replacement, paint marking replacement and other work as described.

A **NON-MANDATORY** pre-bid conference will be held on-site on Tuesday, August 5, 2025, at 8:00 A.M., PST. Site address is 4303 Patton Way, Bakersfield, CA 93308. All questions and RFIs shall be directed to Bid Administrator at bids@norrecreation.org.

Items specified and directed in attached Specifications are used to describe the quality and craftsmanship required and do not detail the exact work to be completed. Contractor shall be experienced with asphalt and concrete demolition, installation and work stated in the attached specifications and plans, and shall submit a current licensed contractor certificate, liability insurance form to \$2 Million in coverage and workman's compensation forms and additional certifications as required by NOR with the Bid Form. Bids submitted without the above forms will not be considered. **BIDS ARE DUE BY AUGUST 11, 2025, at 3:00 PM PST.** Bids may be mailed, emailed or hand delivered. Bids sent by mail, email or hand delivered shall be sealed and labeled on the envelope: Project #EC-1-2526. Emailed bids shall be sent as an email attachment in portable document format (PDF) referencing Project #EC-1-2526 to bids@norrecreation.org. All bids must be submitted on the enclosed form with all required documentation listed in Specifications. Bidder must provide lead time in space provided on the Bid Form. Contractor shall thoroughly read all attached documents and agree to comply with all notices and documents as contained in this Bid Package. By submitting a Bid, Contractor is agreeing to all terms.

If potential purchase orders are to be made to a company not listed as the Bidding Firm, please provide their information in the designated area on the Bid request form.

Bidders are notified of requirements by California Department of Industrial Relations for the registration of contractors and subcontractors; project compliance monitoring and enforcement by the Department of Industrial Relations; posting of job site notices prescribed by regulation; as well as compliance with all prevailing wage and apprenticeship standards pursuant to California Labor Code part 7, Chapter 1, Article 2, Sections 1725.5, 1771.1, 1771.4, and 1777.5, et. al.

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SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

1.01 Introduction

- a. Each proposal shall be in accordance with the Contract Documents prepared by NOR.

1.02 Definition of Terms

- a. Whenever used in any of the Contract Documents, the following terms shall have the meanings hereinafter set forth.

- (1) The words "Contract Documents" shall mean any or all of the following items as applicable:

Notice to Contractors
Instructions to Bidders
The Proposal
Proposal Guarantee (Bidder's Bond)
Bidder's Statement of Experience Qualifications
Bidder's Designation of Subcontractors
Contract Agreement
Noncollusion Affidavit
Guaranty
Certificate of Exclusion of Asbestos and Lead Products
Certification Regarding Playground Equipment Installation
Faithful Performance Bond
Payment Bond
Certificate(s) of Insurance
Certificates of Compliance
General Conditions of the Contract
Supplementary Conditions of the Contract
Specifications
Drawings
Addenda (if applicable)
Contract Change Orders (if applicable)

Each of these items is to be considered by reference as part of the Contract Agreement.

- (2) Contract: The Contract is the written Agreement covering the performance of the Work and the furnishing of labor, materials, tools and equipment in connection with the Work. It includes supplemental agreements amending or extending the Work contemplated and which may be required to complete the Work in a substantial and acceptable manner. Supplemental agreements are written agreements covering alterations, amendments, or extensions to the Contract and include Contract Change Orders.
- (3) NOR: NOR is North of the River Recreation and Park District of Kern County, California. NOR is the Owner whenever Owner is used in Specifications or on Plans.
- (4) Acceptance: The formal written acceptance of the Work by NOR or its authorized representative.

- (5) Board of Directors or Board: The Board of Directors, or Board, is the Board of Directors of North of the River Recreation and Park District.
- (6) Engineer: The term "Engineer" refers to NOR's designated technical representatives assigned administrative responsibilities during the course of construction to make appropriate inspections, testing or interpretation of work. If no such individual has been designated, "Engineer" shall refer to "NOR" and/or "Owner".
- (7) Surveyor: The term "Surveyor" refers to NOR staff or NOR's properly authorized agents, or when required, a surveyor hired by the Contractor which performs designated survey work.
- (8) Contractor: The term "Contractor" used herein or in other sections of the Contract Documents means the person, firm or corporation with whom the Contract Agreement is made by NOR for the performance of Work herein described.
- (9) Subcontractor: Any person, firm, or corporation other than an employee of the Contractor, supplying, for and under agreement with either the Contractor or any subcontractor of the Contractor, labor or materials or both, on or off the site of the Project in connection with this Contract.
- (10) Bidder: Any individual, firm, partnership, or corporation submitting a Proposal for the Work contemplated acting directly or through a duly authorized representative.
- (11) Proposal: The offer of a Bidder for the Work under any schedule or combination of schedules properly completed and submitted on the prescribed Proposal form, with appropriate signatures and Proposal Guarantee.
- (12) Proposal Guarantee: The Cashier's Check, Certified Check, or Bidder's Bond accompanying the Proposal submitted by the Bidder, as a guarantee that the Bidder will enter into a contract with NOR for the performance of the Work when the Contract is awarded to said Bidder.
- (13) Date of Execution of the Contract: The date on which the Contract is signed by NOR's authorized representative.
- (14) Days: Unless otherwise specifically stated, the term "days" will be understood to mean calendar days.
- (15) Work: The term "Work" shall mean all the work specified under schedules indicated, shown or contemplated in the Contract Documents, including all alterations, amendments or extensions thereto made by Contract Change Orders or other written orders of NOR or its Engineer.
- (16) Specifications: The term "Specifications" refers to terms, provisions and requirements contained herein and referred to as Specifications. Where Standard Specifications, such as those of "ASTM", "AASHTO", etc., have been referred to, the applicable portions of such Standard Specifications shall become a part of these Contract Documents.
- (17) Drawings: The term "Drawings" refers to the official plans, profiles, cross sections, evaluations, details, other working drawings and supplementary drawings, or reproductions which show the location, character, dimensions, and details of the Work to be performed. Drawings may be either bound in the same book as in the balance of the Contract Documents or bound in separate sets, and are a part of the Contract Documents regardless of the method of binding.
- (18) Whenever in the Specifications or upon the Drawings, the words DIRECTED, REQUIRED, PERMITTED, ORDERED, DESIGNATED, PRESCRIBED, or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation or prescription shall

be according to NOR's intent and similarly the words APPROVED, ACCEPTABLE, SATISFACTORY, or words of like import, shall mean approved or acceptable to or satisfactory to NOR, unless otherwise expressly stated.

- (19) AASHO: The American Association of State Highway Officials.
- (20) ACI: The American Concrete Institute.
- (21) ADA: The Americans with Disabilities Act of 1990.
- (22) AISC: The American Institute of Steel Construction.
- (23) ISI: The American Iron and Steel Institute.
- (24) ASABE: American Society of Agricultural and Biological Engineers.
- (25) ASME: The American Society for Mechanical Engineers.
- (26) ASTM: The American Society for Testing Materials.
- (27) AWS: The American Welding Society.
- (28) AWWA: The American Water Works Association.
- (29) CCP: Code of Civil Procedure
- (30) IEEE: The Institute of Electrical and Electronics Engineers.
- (31) IPCEA: The Insulated Power Cable Engineers Association.
- (32) NEMA: The National Electrical Manufacturers Association.
- (33) SSPC: The Steel Structures Painting Council.
- (34) USAS: The United States of America Standard Institute.
- (35) County: County of Kern, California.
- (36) City: City of Bakersfield.
- (37) Elevation: The figures given in the Specifications or upon the Drawings after the word ELEVATION or an abbreviation of it, shall mean distances and feet above U.S. Coast and Geodetic Survey sea level data or a referenced fixed point. Actual elevation or relative elevations shall then be established by the Surveyor.
- (38) "Or Equal": Where the phrase "or equal" or "or equal as approved by NOR" occurs in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically so approved for this work by NOR.

1.03 Examination of Site, Drawings, etc.

- a. Each Bidder shall visit the site of the proposed Work and become fully acquainted with local conditions, construction, and labor to ensure a full understanding of the facilities, difficulties, and restrictions attending the execution of the Work under the Contract. Bidders shall thoroughly examine and be familiar with the Drawings and Specifications. The failure of any Bidder to receive or

examine any form, instrument, addendum, or other documents, or to visit the site and become acquainted with existing conditions shall in no way relieve the Bidder from any obligation with respect to a Proposal or to the Contract. The Drawings for the Work show conditions as they are supposed or believed to exist; but it is neither intended nor to be inferred that the conditions as shown thereon constitute a representation by NOR, or its officers or representatives, that such conditions are actually existent, nor shall NOR, or any of its officers or representatives be liable for any loss sustained by the Contractor as a result of a variance between conditions as shown on the Drawings and the actual conditions revealed during the progress of the Work.

- b. The Bidder shall investigate to ensure satisfaction as to the conditions to be encountered, as to the character, quality and quantities of work to be performed and materials to be furnished, and as to the requirements of these Drawings and Specifications, and the Contract.

1.04 Addenda and Explanation to Bidders

- a. Any explanation desired by the Bidders regarding the meaning or interpretation of any of the Contract Documents must be requested in writing, with sufficient allowance of time for receipt of reply before the time set for opening of Proposals. Any such explanations or interpretations will be made in the form of Addenda to the Documents and will be furnished to all Bidders who shall include costs for all Addenda with their Proposals.
- b. NOR is not authorized to give oral explanations or interpretations of Contract Documents, and a submission of a Proposal constitutes agreement that the Bidder has placed no reliance on any such oral explanation or interpretation. However, NOR may, upon inquiry by Bidder, orally direct the Bidder's attention to the specific provision of the Contract Documents that cover the subject of the inquiry.

1.05 Qualifications of Contractors

- a. It is not the intent to restrict or limit the Bidders; however, because of the specialized nature of the Work, each Bidder and Sub-Bidder shall understand the following:
 - (1) The General Contractor must currently be licensed with an appropriate license classification to perform the Work of this Contract; and submit with the Proposal names and locations of at least five (5) projects previously completed or in progress which are of the similar size and difficulty.
 - (2) Each Subcontractor must currently be licensed for their specific classification of work; and must provide evidence, if requested, that they have successfully performed similar work in the past.
 - (3) The Bidders and Sub-Bidders are cautioned against attempting to substitute for specified items that have not been previously approved, and items which may not meet all the requirements of design and quality.
 - (4) It should be understood that close tolerances and conformity to Plans, Specifications, codes and good workmanship will be strictly enforced. Improper, non-conforming, or non-specified work will be immediately rejected, whenever noted, and all such work will be removed and replaced at no additional cost to NOR.

1.06 Designation of Subcontractors

- a. Each Bidder shall set forth in their Proposal on the form provided the following information in accordance with the provisions of Chapter 4, Part 1 of Division 2, of the Public Contract Code.

- (1) The name, address of the place of business, class of license, license number and portion of work to be performed of each Subcontractor who will perform work or labor or render service to the prime Contractor in or about the construction of the work or improvement, or a Subcontractor licensed by the State of California, who, under subcontract to the prime Contractor, specially fabricates and installs a portion of the work or improvement according to detailed Drawings contained in the Plans and Specifications, in any amount in excess of one-half of one percent of the prime Contractor's total Bid.
- (2) The portion of the Work which will be done by each such Contractor. Only one Subcontractor shall be listed for each such portion of the Work as defined in the Bid.
- (3) If the Bidder fails to specify a Subcontractor for any portion of the Work to be performed under the Contract, the prime Contractor agrees to perform that portion of the Work exclusively.

1.07 Contract Bonds

- a. The successful Contractor will be required to furnish both a Performance Bond and Payment Bond. The Performance Bond shall be in the amount of 100% of the total Contract amount. The Payment Bond shall be in the amount required by Section 3247 et seq. of the Civil Code of the State of California (50% of total Contract amount).
- b. Said bonds shall be furnished on the forms enclosed following the Agreement and shall be satisfactory to NOR and shall be obtained from a responsible corporate surety (or sureties) acceptable to NOR, which is licensed by the State of California to act as surety upon bonds and undertakings and which maintains in this state at least one office for conducting business. The surety (or sureties) shall furnish reports as to its financial condition if requested by NOR. NOR will interpret the phrase "reports as to its financial condition" to mean the reports specified in CCP Section 995.660(a)(4). The premiums for said bonds shall be paid by the Contractor.
- c. If any surety becomes unacceptable to NOR or fails to furnish reports as to its financial condition as requested by NOR, the Contractor shall promptly furnish such additional security as may be required to protect the interests of NOR and of persons supplying labor or materials in the prosecution of the work contemplated by this Contract.
- d. In the event of any conflict between the terms of the Contract and the terms of the bonds, the terms of the Contract shall control, and the bonds shall be deemed to be amended thereby.
- e. Without limiting the foregoing, NOR shall be entitled to exercise all rights granted to it by the Contract in the event of the default without control thereof by the surety, provided that NOR gives the surety notice of such default at the time or before the exercise of any such right by NOR, and regardless of the terms of said bonds, the exercise of any such right by NOR shall in no manner affect the liability of the surety under said bonds.
- f. Attorneys-in-fact, who sign Bid Bonds or Contract bonds, must file with each bond, a certified and effectively dated copy of their power of attorney.
- g. The surety company shall familiarize itself with all of the conditions and provisions of this Contract, and it waives the right of special notification of any change or modification of this Contract or of extension of time, or of decreased and increased work, or of the cancellation of the Contract, or of any other act or acts by NOR, or the NOR's authorized agents, under the terms of this Contract; and failure to so notify the aforesaid surety companies of changes shall in no way relieve the surety companies of their obligations under this Contract.

1.08 Proposal Form and Preparation

- a. Bid Proposals shall be submitted using the form attached to and forming a part of the Contract Documents. All bid items shall be properly filled out; numbers shall be stated in figures, and the signatures of all persons signing shall be longhand.
- b. Bidder is to complete and submit with the Agreement all certification forms required under Division 0 of these Specifications.

1.09 Prices

- a. In the case of discrepancy between unit prices and totals, unit prices will prevail. In case of discrepancy between words and figures, words will prevail.

1.10 Proposal Guarantee – Bidder's Bonds

- a. All Proposals shall be accompanied by Certified Check, Cashier's Check or Bidder's Bond made payable to NOR. The Proposal Guarantee must be enclosed in the same envelope with the Proposal. The amount of the Proposal Guarantee shall be not less than 10% of the total amount of the Proposal.

1.11 Address and Marking of Proposals

- a. The envelope containing the Proposal shall be sealed and addressed to NORTH OF THE RIVER RECREATION AND PARK DISTRICT, 3825 Riverlakes Drive, Bakersfield, California 93312. The envelope shall be plainly marked in the upper left-hand corner with the name and address of the Bidder. In the lower left-hand corner the words "PROPOSAL FOR" followed by the name of the Work and the date and hour of opening of bid shall be clearly marked on the envelope. The Certified or Cashier's Check or Bidder's Bond shall be enclosed in the same envelope with the Proposal.

1.12 Withdrawals of Proposals

- a. Proposals may be withdrawn by the Bidder prior to the time for opening of Bids.
- b. No Proposal may be withdrawn after the hour affixed for opening Bids without rendering the accompanying Certified or Cashier's Check or Bidder's Bond subject to retention. It will be treated as though there is a failure to execute the Contract after it is awarded. Negligence on the part of the Bidder in preparing the Proposal shall not constitute a right to withdraw the Proposal subsequent to the opening of Proposals.

1.13 Lowest Responsible Bidder, Acceptance or Rejection of Proposals

- a. NOR reserves the right to accept or reject any and all Proposals and to waive any informality in any Proposal. No Proposal can be withdrawn during that period.
- b. Before a Proposal is considered for award, NOR may require a Bidder to submit a statement of facts and details as to the business, technical organization, financial resources, and equipment available and to be used in performing the Work. Additionally, NOR may require evidence that the Contractor has performed other work of comparable magnitude and type. NOR expressly reserves the right to reject any Proposal if it determines that the business and technical organization, equipment, financial and other resources of the Bidder are not sufficiently qualified for the Work bid upon and, justifies such rejection.

1.14 Award and Execution of Contract

- a. The Board of Directors and/or General Manager will award the Contract at the prices named in the Proposal to the lowest responsible Bidder no later than during the month following the opening of bids unless all Bids are rejected. Contract documents shall be signed within fifteen (15) calendar days after the Bidder receives notice that the Contract is ready for signatures. The successful Bidder will be required to execute the Agreement and furnish evidence of insurance and contract bonds as specified in the Contract.
- b. If a Bidder to whom the award is made fails or refuses to so perform as required herein, the respective Bid Guarantee shall become the property of NOR and the award will be annulled.

1.15 Return of Proposal Guarantee

- a. Within fifteen (15) calendar days after the awarded Contract is executed, NOR will return the Proposal Guarantees, other than Bidder's Bonds, to all Bidders, whose Proposals are not to be further considered in awarding the Contract.
- b. Retained Proposal Guarantees will be held until the Contract has been fully executed, after which all Proposal Guarantees other than Bidder's Bonds and any guarantees which have been forfeited will be returned to the respective Bidders.

END OF SECTION

SECTION 00 25 13 PRE-BID MEETING

NOTICE TO ALL INTERESTED BIDDERS:

A **NON-MANDATORY** pre-bid conference will be held on-site on Tuesday, August 5th at 8:00am PST. Site address is 4303 Patton Way, Bakersfield, California. All questions and RFIs shall be directed to Bid Administrator at bids@norrecreation.org.

Any Addenda issued for said Bid Package will be issued under Section 00 91 13-Addenda.

END OF SECTION

SECTION 00 27 00

BID PROTEST PROCEDURE

1.01 Form and Timing of the Bid Protest.

- a. Any Bid Protest (a "Bid Protest") must be submitted in writing by an eligible Bidder and received by **NORTH OF THE RIVER RECREATION & PARK DISTRICT**, a recreation district operating under California Public Resources Code Section 5781.46 (herein, "NOR"), and other persons as specified in Section 4 on or before 5:00 p.m., Pacific Time, on Wednesday, August 13, 2025, i.e., two (2) business days following Bid opening (the "Bid Protest Deadline"). A "business" day is a day that is neither a Saturday, a Sunday, nor a Federal and/or State of California bank holiday.

1.02. Eligibility to Submit a Bid Protest.

- a. Only a Bidder who has actually submitted a Bid Proposal is eligible to submit a Bid Protest against another Bidder. Materialmen, subcontractors, and suppliers of a Bidder are not eligible to submit a Bid Protest. A Bidder may not rely on the Bid Protest submitted by another Bidder, but must timely pursue its own Bid Protest.

1.03. The Contents of a Bid Protest.

- a. A Bid Protest must contain a complete statement of the basis for the protest and all supporting documentation, information, and materials. Documentation, information, and materials submitted by the Protesting Bidder after the Bid Protest Deadline shall not be considered. The Bid Protest must refer to the specific article(s), paragraph(s), portion(s), provision(s), or section(s) of the Contract Documents upon which the Bid Protest is based and/or upon which it relies. The Bid Protest must include the name, address, telephone number, and, if available, e-mail address of the person(s) representing the Protesting Bidder if different from the Protesting Bidder.

1.04. Submittal of a Bid Protest.

- a. A copy of a Bid Protest and all supporting documentation, information and materials must also be transmitted by e-mail, personal delivery, or telefax to NOR, the Protested Bidder, and any other Bidder who has a reasonable prospect of receiving an award depending upon the outcome of the Bid Protest prior to the expiration of the Bid Protest Deadline.

1.05. Response to a Bid Protest.

- a. The Protested Bidder may submit a written response to a Bid Protest (a "Bid Protest Response"). The Bid Protest Response must be received by NOR, the Protesting Bidder, and any other Bidder who has a reasonable prospect of receiving an award depending upon the outcome of the Bid Protest on or before 5:00 p.m., Pacific Time, on Friday, August 15, 2025, i.e., two (2) business days following after the Bid Protest Deadline or after receipt of the Bid Protest, whichever is sooner (the "Response Deadline"). The Bid Protest Response must include all supporting documentation, information, and materials. Documentation, information, and materials submitted by the Protested Bidder after the Response Deadline shall not be considered. The Bid Protest Response must include the name, address, telephone number, and, if available, e-mail address of the person(s) representing the Protested Bidder if different from the Protested Bidder.

1.06. Submittal of a Bid Protest Response.

- a. A copy of a Bid Protest Response and all supporting documentation, information, and materials must also be transmitted by e-mail, personal delivery, or telefax to NOR, the Protesting Bidder, and any other Bidder who has a reasonable prospect of receiving an award depending upon the outcome of the Bid Protest prior to the expiration of the Response Deadline.

1.07. Strict Compliance with Procedures and Time Limits.

- a. The procedure and time limits set forth in this Bid Protest Procedure are mandatory and are the Bidder's sole and exclusive remedy in the event of a Bid Protest. The Protesting Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue a Bid Protest, including filing a Government Code Claim or initiation of legal proceedings.

1.08. Determination of the Bid Protest by NOR.

- a. NOR, and more specifically the Board of Directors of NOR (the "Board"), shall review all properly and timely submitted Bid Protests and, if applicable, the properly and timely submitted Bid Protest Responses prior to formal award of the bid. NOR shall not be required to hold an administrative hearing to consider a timely protest, but may do so at the option of either the Board or the General Manager of NOR (the "Manager"), or if otherwise legally required. The Board shall consider a Bid Protest, the Bid Protest Response, if applicable, and the award of the bid within five (5) days following Bid Opening. At the time of the Board's consideration of a Bid Protest, the Bid Protest Response, if applicable, and the award of the Bid, the Board may also consider the merits of any timely protests and the Manager's recommendation thereon. The Board may either accept the Bid Protest and award the Bid to the next lowest responsible Bidder, or reject the Bid Protest and award to the lowest responsible Bidder. Nothing in these Bid Protest Procedures shall be construed as a waiver of the Board's right to reject all Bids. Except as provided in Section 9, the Board's decision is final and not subject to further protest or review.

1.09. Appeal.

- a. Judicial review may be available under administrative mandamus, which is available for review of administrative orders where a hearing is given. (California Code of Civil Procedure Section 1094.5.) Review also may be available under a writ of mandate procedure. (California Code of Civil Procedure Section 1085.)

1.10. Note.

- a. NOR must put both construction work and maintenance or repair work costing more than Twenty-Five Thousand Dollars and No Cents (\$25,000.00) out for Bids and award the Contract to the responsible Bidder submitting the lowest responsible Bid or reject all Bids. NOR may perform work estimated to cost less than Twenty-Five Thousand Dollars and No Cents (\$25,000.00) with its own forces or by contract without going out to bid. (California Public Contract Code Sections 20815.1 and 20815.3.)

END OF SECTION

SECTION 00 31 11 PROJECT SUMMARY

This project involves the rehabilitation of an existing parking lot at Emerald Cove Park to restore structural integrity, improve drainage, and enhance overall usability and compliance with current standards. The scope of work includes, but is not limited to, removal and replacement of deteriorated asphalt and concrete elements, grading, asphalt concrete paving and the installation of new striping and signage to ensure an organized parking environment.

Existing damaged curb, gutter, and v-gutter will be demolished and removed from the site. All debris will be hauled off and disposed of in compliance with environmental regulations. New concrete curb, gutter, and v-gutter will be poured to tie-in and match the existing curb and gutter that is to remain.

Site grading will be performed to establish proper slopes for water runoff and to ensure compliance with local drainage and ADA requirements. The grading will provide a stable subgrade for the new asphalt surface.

A new layer of asphalt will be placed and compacted over the prepared subgrade. The paving will follow project specifications for thickness and materials to provide a durable, long-lasting surface.

Upon completion of paving, new striping will be applied to delineate parking stalls and ADA-compliant spaces including replacing any ADA signage that is missing. This rehabilitation effort will result in a fully restored parking lot that meets North of the River Recreation and Park District's standards for functionality, safety, and accessibility.

END OF SECTION

SECTION 00 41 00 BID FORM

To: NORTH OF THE RIVER RECREATION AND PARK DISTRICT

Name of Bidder: _____

Business Address: _____

Business Telephone: _____

Place of Residence: _____

The Work to be done is in the State of California, County of Kern, and is to be pursuant to and in accordance with the Plans and Specifications, General Conditions, Special Provisions, Contract and other Contract Documents referred to in the notice published by NOR in The Bakersfield Californian newspaper, and shall consist, in general, of: **Parking Lot Rehabilitation at Emerald Cove Park, #EC-1-2526.**

The undersigned, as Bidder, declares: That only persons or parties interested in this Proposal as principals are those named herein; the Bidder has no connection with any other parties bidding on the proposed Work (except for a corporate division of the undersigned which may submit an independent bid); that this Bid has been prepared and submitted without any collusion, fraud, misrepresentation, or deceit; the Bidder has examined carefully the location of the proposed Work, the proposed form of Agreement and the Plans and Specifications hereinabove referred to; Bidder agrees that if this Proposal is accepted by the NOR's Board of Directors, Bidder will contract with NOR, provide all necessary machinery, tools, apparatus, and other means of construction, and do all work and furnish all the materials specified in the above documents in full accordance with the Contract Documents (all within the Contract completion time provided by or agreed to by NOR) and that the Bidder will accept as full payment the amounts set forth in Exhibit "A" attached hereto.

For each item contained in Exhibit "A," the Extension Price has been calculated by multiplying the Estimated Quantity by the Unit Price. The Bid Total is the sum of all Extension Prices. Bidder agrees that in case of any discrepancy between the Unit Price(s) and the respective Extension Prices(s) and/or the Bid Total, the Unit Price(s) shall prevail, and the Bid submitted shall be the correctly computed sum of all correctly computed Extension Prices provided. However, if the amount set forth as a Unit Price is unintelligible or omitted, then the amount set forth in the Extension Price column for the item shall be used to determine the correct Unit Price in accordance with the following:

- (1) As to lump sum items, the amount set forth in the Extension Price column shall be the Unit Price.
- (2) As to unit basis item, the amount set forth in the Extension Price column shall be divided by the estimated quantity for the item and the price thus obtained shall be the Unit Price.

If this Proposal is accepted and the undersigned fails to execute the aforesaid Contract and to provide surety bonds and evidence of insurance acceptable to NOR as required within fifteen (15) calendar days after the Bidder receives notice that the Contract is ready for signature, NOR's Board of Directors may, at its option, determine that the Bidder has abandoned the Bid Proposal and the Bidder's security shall be forfeited and shall become the property of NOR. NOR shall then be free to accept the Bid of another Bidder. Should NOR be required to engage the services of an attorney in connection with the enforcement of this Bid, Bidder promises to pay NOR's reasonable attorney's fees, incurred with or without suit.

Accompanying this Proposal is (check one) ☐ Bid Bond ☐ Cashier's Check ☐ Certified Check in an amount equal to at least ten percent (10%) of the Bid Total.

The names of all persons interested in the foregoing proposal as principals are as follows:

_____	_____
_____	_____
_____	_____

The Bidder is licensed in accordance with an act providing for the registration of Contractors, License

Class _____, License No. _____, Expiration Date _____.

Class _____, License No. _____, Expiration Date _____.

Class _____, License No. _____, Expiration Date _____.

California Department of Industrial Relations # _____ **(required)**.

Document 00 43 36, "Proposed Subcontractors Form," is incorporated herein by this reference.

Bidder acknowledges receipt of Addenda Numbers: _____

Bidder acknowledges receipt and review of complete bid package: _____ (initial)

Dated: _____

Signature of Bidder

SECTION 00 41 00 BID FORM

**BID – Parking Lot Rehabilitation at
Emerald Cove Park**

**DUE NO LATER THAN: August 13, 2025
3:00pm PST**

ALL line-item prices shall include unit cost, tax, freight, and the total.

BID NUMBER: EC-1-2526

IMPORTANT: Show Due Date & Bid Number on face of sealed envelope or subject line of PDF document.

The items included in this bid can be provided within _____ weeks after Bid award.

TERMS: Payment will be made when items are satisfactorily received.
Bids may be awarded on a line-item basis.

Item No.	Quantity	Description	Unit Price	Extension
1	~21,420 sf	Grind .20' Existing Asphalt.	\$ _____ sf	\$ _____
2	~18 lf	Demo & Haul Off Curb & Gutter.	\$ _____ lf	\$ _____
3	~18 lf	Pour 6" Curb.	\$ _____ lf	\$ _____
4	~202 sf	Demo & Haul Off Cross Gutter.	\$ _____ sf	\$ _____
5	~202 sf	Pour Concrete V-Gutter.	\$ _____ sf	\$ _____
6	~21,420 sf	Fine Grade Existing Grade and Repair Low Areas.	\$ _____ sf	\$ _____
7	~21,420 sf	Import, Place & Compact Asphalt Concrete.	\$ _____ sf	\$ _____
8	LS	Striping & Signage: 52 Stalls, 2 ADA Handicap, 1 Hash, 1 Stencil, 3 Poles and Signs.	\$ _____	\$ _____
9		<u>Total:</u>		\$ _____
Item No.	Description		Start Date	Days to Completion
10	Anticipated/Earliest Start Date and Days to Complete *Estimated Number of Working Days Will Be Used in Determining Bid; Include Lead Time of Materials as Needed.			

NOTE: The return of a signed copy of this form shall constitute a promise to supply or perform the enumerated items subject to the terms & conditions shown.

NOR reserves the right to accept or reject any or all Bids or Quotations.

If further information is needed contact:
Bid Administrator at bids@norrecreation.org

Make Purchase Order To (firm & address):

FIRM

FIRM REPRESENTATIVE SIGNATURE

REPRESENTATIVE NAME - **PRINTED**

MAILING ADDRESS

CITY

STATE

ZIP

PHONE: _____

SECTION 00 43 13 BID SECURITY FORM

KNOW ALL MEN BY THESE PRESENTS,

That we, _____,

as PRINCIPAL, and _____,

as SURETY (with an "AM Best A-VII" rating or better), are held and firmly bound unto NORTH OF THE RIVER RECREATION AND PARK DISTRICT (hereinafter Obligee), a political subdivision of the State of California, in the penal sum of ten percent (10%) of the total amount of the Bid of the Principal above named, submitted by said Principal to Obligee for the Work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the Surety hereunder exceed the sum of \$_____.

THE CONDITION OF THIS OBLIGATION IS SUCH,

THAT WHEREAS THE PRINCIPAL has submitted the above mentioned Bid to Obligee for that certain construction specifically described as follows, for which Bids are to be opened at Bakersfield, California, on Monday, August 11, 2025, for: _____

NOW, THEREFORE, if the aforesaid Principal is awarded the Contract and within the time and manner required under the Specifications, after the prescribed forms are presented to him for signature, enters into a written Contract, in the prescribed form, in accordance with the Bid, and files the two bonds with the Obligee, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, and furnishes the required certifications of insurance, and such other required certificates, then this obligation shall be null and void; otherwise, it shall remain in full force and virtue.

In the event suit is brought upon this Bond by the Obligee and Judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable Attorney's fee to be fixed by the Court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____ day of _____, 20____ A.D.

_____(SEAL) _____(SEAL)

_____(SEAL) _____(SEAL)

_____(SEAL) _____(SEAL)

PRINCIPAL

SURETY

PROJECT: EC-1-2526

Correspondence or claims related to this Bond should be sent to the Surety at the following address:

NOTE: Signatures of those executing for Surety must be properly acknowledged. A certified copy of the surety's power of attorney shall be attached to this form.

COMPLETE AND SUBMIT WITH BID
END OF SECTION

SECTION 00 43 36
PROPOSED SUBCONTRACTORS FORM

Each Bidder shall set forth below: (a) the required information for each Subcontractor who will perform work or labor, fabricate a portion of the Work or improvement according to detailed Drawings in the Project Plans, or render service to the Contractor in or about the construction of the Work in an amount in excess of one-half of one percent (½ of 1%) of the Contractor's total Bid; and (b) the portion of the Work which will be done by each such Subcontractor. If the Contractor fails to specify a Subcontractor for any portion of the Work as above stated, said Contractor agrees to perform the Work exclusively. In accordance with Section 4101 to Section 4207, inclusive, of the Government Code of the State of California as amended, the following is submitted concerning Subcontractors:

[illegible]

NAME OF CONTRACTOR: _____

(*The license information may be added within 24 hours of bid opening if it was not available at the time the Bid was submitted.)

COMPLETE AND SUBMIT WITH BID
(Attach Additional Pages If Needed to List All Subcontractors)

END OF SECTION

SECTION 00 43 93 BID SUBMITTAL CHECKLIST

Documents to Be Received with Bid Package:

- | | | |
|--------------------------|----------|--|
| ☐ | 00 41 00 | Bid Form |
| ☐ | 00 25 13 | Pre-Bid Meeting Attendance/Site Visit (If Applicable) |
| ☐ | 00 43 00 | Bid Security Form |
| ☐ | 00 43 36 | Proposed Subcontractors Form |
| ☐ | 00 45 13 | Bidder's Qualifications |
| ☐ | 00 45 19 | Non-Collusion Affidavit |
| ☐ | 00 45 26 | Workers' Compensation Certification |
| ☐ | 00 45 33 | Non-Segregated Facilities Certification |
| ☐ | 00 45 36 | Equal Employment Opportunity and Prevailing Wage
Compliance Certification |
| ☐ | 00 45 37 | Certification of Performance on Previous Equal Employment
Opportunity Contracts |
| ☐ | 00 91 13 | Addenda Received (if applicable) |

END OF SECTION

SECTION 00 45 13
BIDDER'S QUALIFICATIONS

QUALIFICATIONS

In accordance with Instructions to Bidders, Item 1.05 "Qualifications of Contractors", Paragraph a., the Bidder is to state their qualifications hereon, or attached to, this form.

[illegible]

CONTRACTOR'S NAME: _____

CONTRACTOR'S LICENSE #: _____

TYPE OF LICENSE: _____

SIGNED: _____

TITLE: _____

COMPLETE & SUBMIT WITH BID

END OF SECTION

SECTION 00 45 19
NON-COLLUSION AFFIDAVIT

State of California)
)ss.
County of Kern)

I, _____ being first duly sworn, deposes and says that he or she
(Name of individual representing bidder)

is _____ of _____, the party making
(Title) (Name of Bidder)

the foregoing Bid that the Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation; that the Bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived or agreed with any Bidder or anyone else to put in a sham Bid, or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the Bid are true; and further, that the Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham Bid.

Contractor/Subcontractor/Consultant

Business Address

Signature

Business City, State, Zip

Title

Residence Address

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
--

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20_____.

by _____ proved to me on the basis of satisfactory evidence to be
the person(s) who appeared before me.

(Seal)

Signature of Notary

(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)
END OF SECTION

SECTION 00 45 26
WORKERS' COMPENSATION CERTIFICATION

In accordance with Section 1861 of the Labor Code, "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

I/We certify to the Owner, North of the River Recreation and Park District (NOR), that our company is in compliance with this requirement:

CONTRACTOR

SIGNATURE

TITLE

DATE: _____

COMPLETE AND SUBMIT WITH BID
END OF SECTION

SECTION 00 45 33

NON-SEGREGATED FACILITIES CERTIFICATION

The Contractor certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services in any location, under its control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex or national origin because of habit, local custom, or any other reason. The Contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that it will retain such certifications in its files.

Project Name and Number: **Parking Lot Rehabilitation at Emerald Cove Park; EC-1-2526**

CONTRACTOR/SUBCONTRACTOR

DATED: _____

BY: _____

TITLE: _____

COMPLETE AND SUBMIT WITH BID
END OF SECTION

SECTION 00 45 36
EQUAL EMPLOYMENT OPPORTUNITY AND
PREVAILING WAGE COMPLIANCE CERTIFICATION

I hereby certify that I will comply with all the provisions of the Equal Opportunity Clause of Executive Order 11246 as amended by Executive Order 11375. Contractor agrees that no person, on the grounds of race, color, religion, national origin, sex or age will be subjected to discrimination under this Contract.

I hereby certify further that I will conform to the general prevailing wage determinations made by the Director of Industrial Relations pursuant to California Labor Code part 7, chapter 1, article 2, sections 1770, 1773, and 1773.1 regarding wages, benefits, on-site audits with 48-hour notice, payroll records, submittal of weekly payrolls (when requested) to North of the River Recreation and Park District and apprentice and trainee employment requirements.

I hereby certify further that I have been notified of California Department of Industrial Relations requirements for the registration of contractors and subcontractors; that the Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations; and the posting of job site notices prescribed by regulation. Pursuant to California Labor Code part 7, Chapter 1, Article 2, Sections 1725.5, 1771.1 and 1771.4.

Project Name and Number: **Parking Lot Rehabilitation at Emerald Cove Park; EC-1-2526**

California Department of Industrial Relations Number: _____

CONTRACTOR/SUBCONTRACTOR

DATED: _____

BY _____
SIGNATURE

TITLE _____

COMPLETE AND SUBMIT WITH BID
END OF SECTION

SECTION 00 45 37
CERTIFICATION OF PERFORMANCE ON PREVIOUS
EQUAL EMPLOYMENT OPPORTUNITY CONTRACTS

The Bidder, _____, and its proposed Subcontractor(s),

_____, hereby certify that they have/have not (circle one), participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10925, 11114, or 11246, and that they have/have not (circle one), filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Project Name and Number: **Parking Lot Rehabilitation at Emerald Cove Park; EC-1-2526**

CONTRACTOR/SUBCONTRACTOR

DATE _____

BY _____

TITLE _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 C.F.R. 60-1.7 (b)(1)], and must be submitted by Bidders and proposed Subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 C.F.R 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt).

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders of their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and who have not filed the required reports should note that 41 C.F.R. 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

COMPLETE AND SUBMIT WITH BID
END OF SECTION

SECTION 00 52 00 AGREEMENT FOR CONSTRUCTION

THIS AGREEMENT made _____, 20____, between NORTH OF THE RIVER RECREATION AND PARK DISTRICT, a California Special District operating under Public Resource Code Section 5780 (herein, "NOR"), and _____, a _____ (herein, "Contractor"), whose address is _____ registered as # _____ with the California Department of Industrial Relations.

WITNESSETH:

ARTICLE I. In consideration for the promises and payment(s) to be made and performed by NOR, and under the conditions expressed in the incorporated Proposal ("Bid") and Contract Documents, Contractor agrees to do all the Work and furnish all the materials at the expense of Contractor (except such as the Contract Documents state will be furnished by NOR) necessary to construct and complete in a good and workmanlike manner to the satisfaction of NOR, and as further shown and described in the Drawings and Specifications entitled: _____ (the Work).

The Work, for which Contractor submitted and NOR accepted a Proposal total of \$ _____, will be completed within the time limit specified in the Supplementary Conditions, in conformity with Contract Documents incorporated by Article III of this Agreement.

ARTICLE II. Contractor agrees to accept the total amount or the unit prices, as the case may be, listed in the accepted Proposal as full payment for all materials and all work embraced in this Agreement including all loss and damage arising out of the Work or the action of the elements or any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the Work and for all risks of every description connected with the Work and for all expenses incurred by or in consequence of the suspension or discontinuance of Work and for well and faithfully completing the Work in the manner and time and according to the Contract Documents and any changes in the Contract Documents NOR may authorize. NOR employs Contractor to provide the materials and do the Work according to the terms and conditions of this Agreement, for the prices stated, and will pay the agreed price in the manner set out in the General Conditions, Supplementary Conditions and Specifications.

ARTICLE III. The Invitation to Bid, Instruction to Bidders, General Conditions, Supplementary Conditions, Drawings, Specifications, Bid Proposal, Addenda, and Bonds (copies of which are attached to this Agreement and are on file in NOR's Administrative Center) are by these references incorporated in this Agreement and comprise the Contract Documents.

ARTICLE IV. I (Contractor) am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Signature of Contractor's Authorized Representative
Making the Above-Stated Certification

ARTICLE V. In the event suit is brought to enforce or interpret any part of this Contract, the “prevailing party” shall be entitled to recover as an element of the costs of suit, and not as damages, reimbursement of costs and a reasonable attorney’s fee plus expenses (including the cost of Engineer and NOR’s representatives and experts and investigators) to be fixed in Court. The “prevailing party” shall be the party who is entitled to recover costs of suit, whether or not the suit proceeds to final judgement. A party not entitled to recover costs shall not recover attorney’s fees. No sum for attorney’s fees shall be counted in calculating the amount of a judgement for purposes of determining whether a party is entitled to recover costs or attorney’s fees.

ARTICLE VI. If NOR or its officers, agents, consultants, employees and Engineer are named, or are required to testify, or to contribute time and expense in any other way, in any suit or enforcement action of any kind brought to recover alleged damages or remedy alleged violations resulting from the acts or omissions (including negligent acts or omissions) in connection with, or accidents arising from, the acts, operations, and responsibilities of the Contractor or others associated with or working under Contractor, or others to whom the Contractor is responsible in direct or indirect relation to the performance of the Contract Work, NOR and/or its officers, agents, consultants, employees, and Engineers shall be indemnified, held financially harmless and legally defended (with counsel acceptable to the named party) by the Contractor from any claims for damages and reimbursed for any reasonable costs incurred by them for lost time, expert assistance, and incidental expenses in connection with their need to participate in defending themselves against such claims, or contributing time and expense in any other such way, whether or not the suit or enforcement action proceeds to final judgement. This article shall apply and be enforceable for the full time of any applicable statute of limitations.

ARTICLE VII. The parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all the provisions herein contained. Contractor may not, either voluntarily or by action of law, assign any obligation assumed by Contractor hereunder without the prior written consent of NOR.

IN WITNESS WHEREOF, NOR and Contractor have set their hands on the date first above written.

NORTH OF THE RIVER RECREATION AND PARK DISTRICT

Date: _____ by _____
Signature

Contractor's Name

Contractor's License Number

Type of Entity (corporation, partnership, individual, etc.)

Date: _____ by _____
Signature

Print Name

Title of Individual Executing Document on Behalf of Firm

NOTICE: Contractors are required by law to be licensed and regulated by the Contractors State License Board. Questions concerning a contractor may be referred to the registrar of that board.

END OF SECTION

SECTION 00 61 13.13 FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

THAT, WHEREAS, North of the River Recreation and Park District (NOR) has entered into a Contract dated _____ with _____ hereinafter designated as the "Contractor," for the work described as: _____.

WHEREAS, the said Contractor is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, WE, the undersigned Contractor, as Principal and _____ (Corporate Surety with an "AM Best A-VII" rating or better), a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as SURETY are held and firmly bound unto NOR in the penal sum of \$ _____ lawful money of the United States, said sum being not less than one hundred percent (100%) of the total Contract amount, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT IF the above bounden Contractor or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, well and truly keep and perform the covenants, conditions, and agreements of said Contract and any alterations thereof made as therein provided on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless NOR, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue. In the event legal action is required to enforce the provisions of this Agreement, the prevailing party shall be entitled to recover reasonable attorney's fees in addition to court costs, necessary disbursements, and other damages.

And the said SURETY, for value received, hereby stipulates and agrees that no charge, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise effect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the Work or to the Specifications.

PROJECT: EC-1-2526

IN WITNESS WHEREOF, we have hereunto set our hands and seals this ____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL

BY _____

(Corporate Seal)

TITLE: _____

SURETY

BY: _____

TITLE: _____

Correspondence or claims related to this bond should be sent to the Surety at the following address:

Phone Number: _____

NOTICE: The acknowledgment of an authorized representative of the principal and a certified copy of the surety's power of attorney shall be attached to this form.

SUBMIT WITH AGREEMENT

END OF SECTION

SECTION 00 61 13.16 PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS

THAT, WHEREAS, North of the River Recreation and Park District (NOR) has awarded to: _____, hereinafter designated as the "Contractor," a Contract for the Work described as follows: _____.

WHEREAS, said Contractor is required by the provisions of Division 3, Part 4, Title 15, Chapter 7 of the Civil Code to furnish a bond in connection with said Contract, as hereinafter set forth.

NOW, THEREFORE, WE, the undersigned Contractor as principal and _____ (Corporate Surety with an "AM Best A-VII" rating or better) a corporation organized and existing under the laws of the State of _____ and duly authorized to transact business under the laws of the State of California, as SURETY are held and firmly bound unto NOR under the terms and truly to be made we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents in the penal sum of \$ _____. This being at least fifty percent (50%) of the total Contract amount herein \$ _____, paid in lawful money of the United States.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if said Contractor, or its heirs, executors, administrators, successors, assigns or subcontractors shall fail to pay for any materials, provisions, provender, or other supplies or teams, implements, or machinery used in, upon, for or about the performance of the Work contracted to be done, or for any work or labor thereon of any kind, or fail to pay any of the persons named in California Civil Code Section 3181, or for the amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and Subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work or labor as required by the provisions of Division 3, Part 4, Title 15, Chapter 7 of the Civil Code; and provided that the claimant shall have complied with the provisions of said Code, the surety or sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety will pay a reasonable attorney's fee to be fixed by the Court.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claim under Section 3181 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond. And the said SURETY, for value received, thereby stipulates and agrees that no change, extension of time, alteration or addition 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 any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

Principal and SURETY agree that should NOR become a party to any action on this bond that each will also pay NOR's reasonable attorney's fees included therein in addition to the sum above set forth.

PROJECT: EC-1-2526

IN WITNESS WHEREOF, WE have hereunto set our hands and seals this _____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL

BY _____

(Corporate Seal)

TITLE _____

SURETY

BY _____

TITLE _____

Correspondence or claims related to this bond should be sent to the Surety at the following address:

Phone number: _____

NOTICE: The acknowledgment of an authorized representative of the principal and a certified copy of the surety's power of attorney shall be attached to this form.

SUBMIT WITH AGREEMENT

END OF SECTION

SECTION 00 62 24
CERTIFICATE OF EXCLUSION OF
ASBESTOS AND LEAD PRODUCTS

Project:
Parking Lot Rehabilitation at Emerald Cove Park
4303 Patton Way
Bakersfield, CA

EXCLUSION OF ASBESTOS and LEAD CONTAINING PRODUCTS
TO BE EXECUTED BY CONTRACTOR

1. The General Contractor agrees that asbestos and lead containing products or materials will not be used in performing work under the Agreement for the above referenced Project.
2. At the completion of Work under the Agreement, the General Contractor will represent to Owner, North of the River Recreation and Park District, that to the best of the Contractor's knowledge, opinion or belief, no asbestos and lead containing products or materials were used in performing work under the Agreement.

Executed at _____, California, on _____, 20_____.

Contractor

Signature

Type Name and Title

SUBMIT WITH AGREEMENT
END OF SECTION

SECTION 00 63 13 REQUEST FOR INFORMATION FORM

Project: Parking Lot Rehabilitation at Emerald
Cove Park

R.F.I. #: _____
From: _____

To: North of the River Recreation & Park District
Re: _____

Date: _____
Proj. #: _____

Specification Section: _____ Paragraph: _____ Drawing Sheet: _____ Detail: _____
Request: _____

Signed By: _____ Printed Name: _____ Date: _____
Response: _____

☐ Attachments:

Response From: _____ To: _____ Date Open: _____ Date Ret'd: _____

Signed by: _____ Date: _____

Printed Name: _____

END OF SECTION

SECTION 00 65 36 WARRANTY FORM

For a valuable consideration, the receipt of which is hereby acknowledged, we guarantee that the labor and materials which we have supplied and/or furnished and/or constructed and/or installed and/or performed at 4303 Patton Way, Bakersfield, California, are in accordance with Specifications and Plans for said Construction Project prepared by North of the River Recreation and Park District (NOR) and conform to the specific requirements, performances, and capacities set forth in all of the Contract Documents, Plans and Specifications for said Project and will fulfill the requirements of the guaranties included in the said Specifications, Plans and Contract Documents.

We further guarantee the same to be free from imperfect workmanship and/or materials, and we agree to repair and/or replace at our own cost and expense any and all such work and/or materials which may prove defective in workmanship or materials within a period of one (1) year from date of acceptance of the above named Construction Project by NOR, ordinary wear and tear, unusual abuse or neglect excepted. We also agree to repair and/or replace at our own cost and expense any work and/or materials that we may disturb or displace in making good such defects.

Within twenty-four (24) hours after being notified in writing by NOR of any defects in said work or materials, we agree to commence and prosecute with due diligence all work necessary to fulfill the terms of this guaranty and to complete the Work within a reasonable period of time and in the event of our failure to so comply we collectively and expressly do hereby authorize NOR to proceed to have such work done at our expense and we will honor and pay the cost and charges therefore upon demand.

This guarantee is made expressly for and runs to the benefit of NOR and shall be enforceable by NOR.

DATED: _____
Contractor

By: _____
Signature

Typed Name and Title

For maintenance, repair, or replacement service contact:

Name: _____

Address: _____ Phone: _____

SUBMIT WITH AGREEMENT
END OF SECTION

SECTION 00 72 00
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SECTION 00 72 00

GENERAL CONDITIONS OF THE CONTRACT

CONTRACT DOCUMENTS, PLANS, SPECIFICATIONS & SITE INVESTIGATION

1.01 Correlation and Intent of Documents

- a. The intent of the Contract Documents is to prescribe the details for the construction and completion of the Work which the Contractor undertakes to perform in accordance with the terms of the Contract Documents and to require a complete and finished piece of work. Where the Plans and Specifications describe portions of the Work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment and incidentals, and do all the Work involved in executing the Contract in a satisfactory and workmanlike manner.
- b. The Contract Documents are complementary, and what is required in any one shall be as binding as if specified in all.
- c. The organization of the Specifications into divisions, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of work to be performed by any trade.

1.02 Interpretation of Plans and Specifications

- a. Every part of the Work, as shown on the Drawings and described in the Specifications, must be complete and finished. No deviations are to be made from the Drawings or Specifications without previous written authorization from NOR.
- b. In general, the Drawings show dimensions, positions, and kind of construction and the Specifications define materials, qualities and methods. In the event that work is called for on the Drawings and not in the Specifications, or vice versa, the Contractor shall immediately notify NOR of the omission, and wait for NOR to issue instructions for procedure. Upon receiving such instruction, the Contractor shall be responsible for performing any work originally called for on the Drawings and not in the Specifications or vice versa, as though fully set forth in both.
- c. In the case of difference between the Specifications and Drawings, the Specifications shall govern. However, whenever the Contractor observes an error or conflict in the Drawings or Specifications, or in the work done by others affecting this Work, the Contractor shall immediately notify NOR of the discrepancy and wait for NOR to issue instructions to proceed. If the Contractor proceeds with the affected work without instructions from NOR, any resulting damages or defects shall be made good. This includes typographical errors in the Specifications and notational errors on the Drawings.
- d. The Drawings must accurately be followed as to scale, except where figures are given for dimensions, which shall in all cases be taken in preference to scale measurements. Large scale details take precedence over small drawings in all cases.
- e. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked, or specified. Where a portion of the Work is detailed on any Drawings and the remainder is indicated in outline, the detailed parts shall apply also to all like portions of the Work. Where ornament or other detail is indicated only partially, the detail shall be continued through the sections or parts in which it occurs and shall also apply to all similar parts in the Work, unless otherwise indicated.

1.03 Site Investigation

- a. The Contractor acknowledges sufficient site investigation to reach satisfaction as to the nature and location of the Work, the general and local conditions, particularly those bearing on transportation, handling and storage of materials, the character of the equipment and facilities needed during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under this Contract. Any failure of the Contractor to be acquainted with all the available information concerning these conditions will not relieve it from the responsibility for estimating properly the difficulties or cost of successfully performing the Work.

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.04 Contractor's Facilities

- a. Before proceeding with the erection of any construction facilities, including machinery, equipment, offices, or warehouses, the Contractor shall, at no expense to NOR, notify and furnish NOR with information and drawings as NOR may request for all such facilities, with capacities and capabilities of the machinery and equipment. Such Contractor's facilities shall be adequate for the uses intended and be fully in accord with the requirements of the Contract.

1.05 Temporary Use of Facilities

- a. Subject to the approval of NOR, the Contractor may be permitted to make temporary use of NOR owned land or storage areas available in the vicinity of the Contract Work for storage of equipment or materials. The Contractor shall obtain approval for use of facilities prior to Bidding. If such permission is not obtained prior to Bidding, there is no guarantee that this can happen, and the Contractor is responsible to pay all additional costs incurred as a result of not properly securing permission prior to Bidding.

1.06 Sanitary Facilities

- a. Furnish and install all required temporary toilet buildings with sanitary toilets for use of all employees. Comply with all minimum requirements of the Health Department or other public agency having jurisdiction. Maintain in a usable sanitary condition at all times.

1.07 Utilities for Construction

- a. The Contractor shall, at no expense to NOR, arrange for, develop, and maintain all utilities necessary for the performance of Work under the Contract, including all interest in land necessary therefore. Such service shall be furnished at the Contractor's expense. At sites where utilities exist NOR may furnish utilities at no expense to the Contractor. Contractor is responsible to determine availability of adequate services and receive approval of NOR to use the same prior to submitting a Bid for the Work. Any misjudgment on the part of the Contractor shall be corrected at the Contractor's expense.

1.08 Fencing of the Construction Area

- a. If fencing is required for the construction, furnish and install a temporary fence around the construction area as indicated on the Drawings. Temporary fencing shall not be less than six feet high, complete with metal or wood posts, a woven wire mesh and all required bracing, truck gates, and pedestrian gates. Where there is existing fencing, it may be utilized in the Project fencing unless the height or condition of the existing fence will not meet the intent of the construction fence.

1.09 Illumination

- a. When any work is performed at night or where daylight is shut off or obscured, the Contractor shall, at no expense to NOR, provide artificial light sufficient to permit work to be carried on efficiently, satisfactorily, and safely, and to permit thorough inspection. The access to the place of work shall also be clearly illuminated.

1.10 Lands for Work, Right of Way Easements, and Access Roads

- a. NOR will provide the lands, easements, and rights of way or other right to enter and work on lands necessary for the performance of the Work. Should the Contractor find it advantageous to use any additional land for any purpose whatever, the Contractor shall provide for the use of such land at its expense. Nothing herein contained and nothing marked on the Drawings, shall be interpreted as giving the Contractor exclusive occupancy of the territory provided by NOR. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that work on one contract may interfere with that of another, NOR shall decide which contractor shall cease work and which shall continue, or whether the work on both contracts shall progress at the same time, and in what manner, and the decision of NOR shall be final and binding.
- b. Lands to be furnished by NOR for construction operations will be specifically shown on the Drawings or provided for in the Supplementary Conditions.
- c. The Contractor, if required, shall construct and maintain all roads necessary to reach the various parts of the Work and for the transportation thereto of construction material and personnel. The cost of constructing and maintaining such roads shall be borne by the Contractor.

1.11 Protection of Work

- a. Until acceptance of the Work by NOR, the Contractor shall continuously maintain adequate protection of all Work from damage. The Contractor shall make good any such damage, injury, or loss, except such as may be caused solely by the negligence or willful misconduct of agents and employees of NOR. Contractor shall adequately protect adjacent property as provided by law and the Contract Documents. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.
- b. The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor or employees of the Contractor in the course of their employment, whether such trespass was committed with or without the consent or knowledge of the Contractor.

1.12 Preservation of Property

- a. The Contractor shall take whatever precautions are necessary to prevent damage to all existing improvements, including aboveground and underground utilities, trees, and shrubbery that are not specifically shown to be removed, fences, signs, mailboxes, survey markers and monuments, buildings and structures, NOR's property, adjacent property, and any other improvements or facilities within or adjacent to the Work. If such improvements or property are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition at least as good as the condition that existed prior to the start of the Contractor's operations.
- b. The Contractor shall examine all bridges, culverts, and other structures over which materials and equipment will be moved, before using them, and shall properly strengthen such structures, where necessary. The Contractor shall be responsible for any and all injury or damage to such structures caused by reason of construction operations.

c. Regional Notification Center Contact:

- (1) Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than any underground facilities owned or operated by NOR, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any Subcontractor of the Contractor and NOR has been given the identification number by the Contractor.
- (2) "Emergency" shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Government Code Section 4216).
- (3) "Subsurface installation" means any underground pipeline, conduit, duct, wire, or other structure operated or maintained in or across a public street or public right-of-way (Government Code Section 4216).

1.13 Protection of Roadways from Excess Loadings

- a. The Contractor shall not operate construction equipment of any kind on or across public or private roadways having weights in excess of the maximum limit established by local authorities in charge of maintenance of such facilities unless expressed written permission is granted by such authorities. Each vehicle shall have a sufficient number of pneumatic tires to adequately maintain any vehicle wheel loading below the required limit. Except at authorized public crossings, the Contractor shall not cross roads unless otherwise permitted in writing by the appropriate local authority in charge of the affected facility. In addition to the requirements of this Article, the Contractor's attention is called to 1.12, Preservation of Property of these "General Conditions."

1.14 Responsibility for Repair of Facilities

- a. All existing NOR equipment or other facilities or other public or private facilities, including but not limited to existing canals, structures, telephone cables, roadways, parking lots, private drives, levees and embankments for canals, ponds and reservoirs disturbed by Contract construction shall be repaired and/or replaced to match existing. In addition, the Contractor shall be responsible for any settlement damage to such facilities or adjoining areas, for a period of one year after NOR acceptance of such required facilities. Regarding equipment furnished for Contractor's installation, Contractor shall obtain and bear the cost of any insurance which may be required with respect to meeting its obligations hereunder.

1.15 Traffic Control

- a. The maintaining of public vehicular traffic through the Work to adjacent driveways and intersecting streets shall conform and Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make its own arrangements relative to maintaining uninterrupted access to all residences or businesses in the construction area at all times. Public vehicular traffic within and in the vicinity of Project area, shall be permitted to pass through the Work area safely and with as little inconvenience as possible.
- b. Barricades and warning devices, to be provided by the Contractor, will be required to delineate the edge of traversable road, in such numbers necessary to maintain traffic safety and will conform to the

style of the California State Division of Highways, "Traffic Manual," Chapter 5-10, of the "Work Area Traffic Control Handbook," or as directed by the Traffic Engineer.

- c. Barricades or fences shall be installed around all open-trenched areas at all times as required by the provisions of Cal OSHA requirements.
- d. Any flagmen needed shall follow the "Instructions of Flagmen" Figure 5-10, of the "Traffic Manual."
- e. All temporary traffic control signs will be provided and installed by the Contractor. "No Parking" signs shall be posted twenty-four (24) hours in advance of construction and shall state the hours and duration of the construction. It shall be the Contractor's responsibility to maintain said signs as posted during the duration of the Project.
- f. All signs, barricades, warning devices, and flagmen's equipment shall be constructed of the correct materials and shall be of the correct color.
- g. Payment for the traffic control plan, detours, traffic control and accommodating public convenience for the entire length of this Project shall be considered as included in the Contract, and no additional payment will be made therefore. No additional payment will be allowed for night and weekend work necessary to prepare and maintain traffic control and public convenience.

1.16 Public Convenience

- a. It is part of the service required by the Contractor to make whatever provisions are necessary to protect the public. The Contractor shall use foresight and shall take such steps and precautions as operations warrant to protect the public from danger, loss of life or loss of property, which would result from interruption or contamination of a public water supply, interruption of other public service, or from the failure of partly completed work or partially removed facilities. Unusual conditions may arise on the Work which will require that immediate and unusual provisions be made to protect the public from danger or loss, or damage to life and property, due directly or indirectly to prosecution of work under this Contract. Whenever, in the opinion of NOR, an emergency exists against which the Contractor has not taken sufficient precaution for the public safety, protection of utilities and protection of adjacent structures or property, which may be damaged by the Contractor's operations and when, in the opinion of NOR, immediate action shall be considered necessary in order to protect the public or property due to the Contractor's operations under this Contract, NOR will order the Contractor to provide a remedy for the unsafe condition. If the Contractor fails to act on the situation within a reasonable time period, NOR may provide suitable protection to said interests by causing such work to be done and material to be furnished which, in the opinion of NOR, is reasonable and necessary.
- b. The cost of said labor and material, together with the cost and expense of such repairs as deemed necessary, shall be borne by the Contractor. All expenses incurred by NOR for emergency repairs will be deducted from the progress payments and the final payments due to the Contractor. However, if NOR does not take such remedial measures, the Contractor is not relieved of the full responsibility for public safety.

SAFETY

1.17 Safety

- a. The Contractor is hereby informed that work on this Project could be hazardous. The Contractor shall carefully instruct all personnel working in potentially hazardous work areas regarding potential dangers and provide such necessary safety equipment and instructions as necessary to prevent injury to personnel and damage of property. Special care shall be exercised relative to work underground.

- b. The Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable federal, state, county and local laws, ordinances, and codes, and to the rules and regulations established by the California Division of Industrial Safety, and to other rules of law applicable to the Work.
- c. In accordance with Section 6501 of the State Labor Code, the Contractor shall obtain a permit for all work subject to the requirements thereof. This in no way relieves the Contractor from the requirements of maintaining safety in all operations they or their Subcontractors perform.
- d. All equipment furnished shall be grounded and provided with guards and protection as required by safety codes. Where a vapor tight explosion proof electrical installation is required by code, it shall be provided. In accordance with the provisions of Sections 6705 and 6707 of the Labor Code, the Contractor shall retain the services of a registered civil or structural Engineer, to design shoring if applicable. State and include this information in the Proposal as a separate Bid Item. The Contractor shall submit these designs to NOR for review.
- e. Nothing in these Specifications shall be construed to permit work not conforming to governing codes. When Contract Documents differ from governing codes, the Contractor shall furnish and install the higher standards called for without extra charge.
- f. The duty of NOR or designated representative to conduct construction review of the Contractor's performance and the undertaking of inspection by NOR or the giving of instructions as authorized herein is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site and shall not be construed as supervision of the actual construction nor make NOR responsible for providing a safe place for the performance of work by the Contractor, Subcontractors, or suppliers; or for access, visits, use, work, travel, or occupancy by any person.

1.18 Accidents

- a. The Contractor shall provide, at the site, such equipment and medical facilities as necessary to supply first aid service to anyone who may be injured in connection with the Work.
- b. The Contractor shall promptly report in writing to NOR all accidents whatsoever arising out of, or in connection with the performance of the Work, whether on or adjacent to the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious damage is caused, the accident shall be reported immediately by telephone or messenger to NOR.
- c. If any claim is made by anyone against the Contractor or any Subcontractor on account of an accident, the Contractor shall promptly report the facts in writing to NOR giving full details of the claim.

1.19 Fire Protection

- a. The Contractor shall not permit unauthorized fires either within or adjacent to the limits of the Project and shall be liable for all damage from fire due directly or indirectly to construction activities, or actions of those of the Contractor's employees, or Subcontractors and their employees. The Contractor shall conform to all Federal, State, or Local laws and regulations pertaining to burning, fire prevention, and control within or adjacent to the Project. A copy of each required permit shall be furnished to NOR. The Contractor's forces or equipment may be required to fight fires in the vicinity, regardless of cause. NOR will not assume any responsibility of payment for fighting fire when such is

ordered by Governmental Authority or when such is required for protection of the Work pursuant to the General Conditions.

1.20 Valley Fever – Notice to Employees

- a. A special biological problem of the Project area is presence of tiny organisms living in the soil which can cause Valley Fever (coccidiomycosis) in man. As is typical of many desert areas in southwestern United States, Valley Fever is endemic to Kern County. Although everyone living in the valley has some contact with the disease-causing organisms, the illness is a greater threat to those like construction employees whose work brings them into close contact with the soil. In accordance with the recommendation of the Kern County Health Department, the Contractor and all Subcontractors shall advise all their employees, in writing, to obtain coccidioidin skin tests before commencing work on this Project and at intervals thereafter as recommended by their family physician. The Contractor and all Subcontractors shall also advise all their employees, in writing, to wear dust masks while working under dusty conditions.

INSURANCE AND LIABILITY

1.21 Insurance

- a. The Contractor shall not commence any work until all required insurance is obtained at Contractor's expense. Such insurance must have the approval of NOR as to limit, form, and amount and shall be written by a company with an "AM Best A-VII" rating or higher. The Contractor shall not permit any Subcontractor to commence work on this Project until the same insurance requirements have been complied with by such Subcontractor.
- b. Any insurance bearing on adequacy of performance shall be maintained after completion of the Project for the full guarantee period.
- c. The Contractor at Contractor's expense shall maintain in effect at all times during the performance of the Work under the Contract not less than the required coverage and limits of insurance, which shall be maintained with insurers and under forms of policy satisfactory to NOR which is specified in the Supplementary Conditions of the Contract.
- d. Promptly on execution of the Contract and prior to commencement of any work, the Contractor shall deliver to NOR certificates of insurance issued in triplicate (3) covering all policies providing the required insurance. Such certificates shall make reference to all such provisions and endorsements referred to above and shall be signed on behalf of the insurer by its authorized representative. The Contractor agrees to furnish one copy of each policy to NOR if requested in writing. Said copy shall be certified by an authorized representative of the insurer.
- e. All of the Contractor's policies shall contain an endorsement providing that written notice shall be given to NOR at least ten (10) calendar days prior to termination, cancellation, or reduction of coverage included in the policy.
- f. Any policy or policies of insurance that the Contractor elects to carry as insurance against loss or damage to his construction equipment and tools shall include a provision therein providing a waiver of the insurer's right to subrogation against NOR and its agents.
- g. The foregoing requirements as to the types, limits and NOR's approval of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Contract.

1.22 Indemnity and Litigation Costs

- a. The Contractor is specifically obligated and hereby agrees to protect, hold free and harmless, defend and indemnify NOR and its consultants, and each of its officers, employees and agents from any and all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees, which arise out of or are in any way connected with the Contractor's performance of work under this Contract whether attributable in whole or in part to the condition of the premises. To the extent legally permissible, this indemnity and hold harmless agreement by the Contractor shall apply to any acts or omissions, whether active or passive, on the part of the Contractor or agents, employees and representatives of the Contractor, or Subcontractors and Subcontractor's agents, employees and representatives resulting in liability irrespective of whether or not any acts or omissions of the parties to be indemnified hereunder may have also been a contributing factor to the liability.
- b. In the event that litigation of any nature between NOR and the Contractor becomes necessary to enforce or interpret all or any portion of this Contract, it is mutually agreed that the prevailing party therein shall receive from the other, in addition to such sums as may be reduced to judgement an amount sufficient to reimburse such prevailing party for reasonable attorney's fees and litigation costs paid or owing as a result of such litigation.
- c. No Personal Liability: Neither NOR, nor any other officer or authorized assistant or agent shall be personally responsible for any liability arising under the Contract, except such obligations as are specifically set fourth herein.

LABOR REQUIREMENTS**1.23 Labor Discrimination Prohibited**

- a. Attention is directed to Sections 1735 and 1777.6 of the Labor Code, which read as follows:

Section 1735: "No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

Section 1777.6: "It shall be unlawful for any employer or a labor union to refuse to accept otherwise qualified employees as indentured apprentices on any public works, solely on the ground of the race, religious creed, color, national origin, ancestry, or sex of such employee."
- b. Contractor shall cause clauses identical to the above-cited prohibitions to be included in every subcontract for the Project Work and Contractor hereby stipulates that such conditions shall be required of its Subcontractors.

1.24 Mandatory Certification of Contractor and Employment of Apprentices

- a. This Contract shall not prevent the employment of properly indentured apprentices in accordance with the California Labor Code, and no employer or labor union shall refuse to accept otherwise qualified employees as indentured apprentices on the Work performed hereunder solely on the grounds of race, creed, national origin, ancestry, color, or sex. Every qualified apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade in which he/she is employed, and shall be employed only in the craft or trade to which he/she is indentured.

- b. If California Labor Code Section 1777.5 applies to the Contract Work, the Contractor and any Subcontractor hereunder who employ workers in any apprenticeable craft or trade shall apply to the joint apprenticeship council administering applicable standards for a certificate approving the Contractor or Subcontractor for the employment and training of apprentices. Upon issuance of this certificate, the Contractor and any Subcontractor shall employ the number of apprentices provided for therein, as well as contribute to the fund to administer the apprenticeship program in each craft or trade in the area of the Work hereunder.
- c. The parties expressly understand that the responsibility for compliance with this section and with Sections 1777.5, 1776.5 and 1777.7 of the California Labor Code, in regard to all apprenticeable occupations, lies with the Contractor hereunder.
- d. In accordance with Labor Code Section 1773.3, NOR will send notice of the award of this Contract to the Division of Apprenticeship Standards within five days after award if the Contract is awarded to a general contractor in the amount of at least \$30,000 and involves at least 20 working days, or is awarded to a specialty contractor in the amount of \$2,000 and involves at least five working days, if such general or specialty contractor employs workers in an apprenticeable craft or trade.

1.25 Prevailing Rates of Wages and Payroll Records

- a. As suggested in the Notice Inviting Bids, NOR has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which the Contract Work is to be performed for each craft, classification, or type of worker needed to execute the Contract, a copy of which is hereby incorporated by reference. The prevailing rates of per diem wages are available at the California Department of Industrial Relations website (www.dir.ca.gov/dlsr/pwd/index.htm).
- b. Contractor shall forfeit to NOR, as a penalty, \$50.00 for each calendar day, or portion thereof, for each worker paid less than the said per diem wage for any work done under the Contract by it or by any Subcontractor under it in violation of the provisions of the California Labor Code. It is hereby stipulated by and between NOR and Contractor that Contractor will comply with provisions of California Labor Code Section 1775. The term "per diem wages" shall be deemed to include travel and subsistence payments, which are required by California Labor Code Section 1773.8 to be paid to each worker performing work under the Contract.
- c. Contractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice or worker employed. Such records shall be available for inspection at all reasonable hours and a copy shall be made available to any employee or employee's authorized representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards in compliance with California Labor Code Section 1776. Upon written notice from NOR or the Division of Labor Standards Enforcement, Contractor shall within ten days file with NOR a certified copy of the payroll records. Contractor shall cause an identical clause to be included in every subcontract for Contract work.

1.26 Eight-Hour Day Limitation

- a. Eight (8) hours constitutes a legal day's work (Labor Code, Section 1810). The time or service of any workman employed on this Project is limited and restricted to eight (8) hours during any one calendar day, and 40 hours during any one calendar week, except as provided for under Section 1815 of the Labor Code (Labor Code, Section 1811).
- b. Every Contractor and Subcontractor shall keep an accurate record showing the names and actual hours worked each calendar day and each calendar week by each workman employed in connection

with the Public Work. The record shall be kept open at all reasonable hours to the inspection of NOR and to the Division of Labor Law Enforcement (Labor Code, Section 1812).

- c. The Contractor shall, as a penalty to NOR, forfeit twenty-five dollars (\$25) for each workman employed in the execution of the Contract by the Contractor or by any Subcontractor for each calendar day during which such workman is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of this article (Labor Code, Section 1813). Any Contractor or Subcontractor who neglects to comply with any provision of Section 1812 is guilty of a misdemeanor (Labor Code, Section 1814).
- d. Work performed by employees of Contractors in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted for Public Work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1½) times the basic rate of pay (Labor Code, Section 1815).

1.27 Worker Benefits

- a. In accordance with Section 1773.1 of the Labor Code, per diem wages shall be deemed to include employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided in Section 1773.7, apprenticeship or other training programs authorized by Section 3093, and similar purposes.
- b. In accordance with Section 1773.8 of the Labor Code, the Contractor and Subcontractor must provide travel and subsistence payments to each workman needed to execute the Work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with this section.

MATERIALS AND EQUIPMENT

1.28 Materials Furnished by the Contractor

- a. General: Unless otherwise specified, the Contractor shall furnish all materials necessary for the execution and completion of the Work. All materials, unless otherwise specified, shall be new, and shall be manufactured, handled and installed in a workmanlike manner to ensure completion of work in accordance with the Contract Documents. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials, including furnishing written manufacturer's certifications of compliance with applicable designated governing reference specifications.
- b. Materials Furnished by NOR: Where materials are to be furnished by NOR, the type, size, quantity and location at which they are available will be stated in the Supplementary Conditions.

1.29 Records of Materials Purchased

- a. If required by NOR, the Contractor shall furnish duplicate invoices to NOR on all Materials furnished to the Project.

1.30 Material Storage and Protection

- a. During the progress of the Work, products and materials shall be neatly stored in accordance with the appropriate manufacturer's recommendations and shall be properly cared for and protected from weather, vandalism, and theft.
- b. All installed products and materials shall be adequately protected until such time that NOR accepts the Project.

1.31 Right to Operate Unsatisfactory Equipment or Facilities

- a. If, following installation of any equipment or facilities furnished by the Contractor, defects requiring correction by the Contract are found, NOR shall have the right to operate such unsatisfactory equipment or facilities and make reasonable use thereof until the equipment can be shut down for correction of defects without injury to NOR.

1.32 Warranty

- a. The Contractor shall guarantee all materials, workmanship and equipment furnished under these Specifications for a period of at least one (1) year from the date of filing the Notice of Completion. Should certain projects or contracts require longer warranty periods, those specified warranty periods shall then supersede the normal one year warranty period. Such other warranty periods will require specific warranty statements required in the Contract Package. Upon receipt of written notice from NOR of the failure of any part during the Guarantee Period, due to defective materials furnished, workmanship or equipment furnished, the affected part, or any other work or property damaged on account thereof, shall be repaired or replaced to the satisfaction of NOR by and at the expense of the Contractor.
- b. Should the Contractor fail to act immediately in making the necessary repairs and replacements, NOR may perform or cause to be performed the necessary replacement and the Contractor shall pay to NOR the actual cost of such replacement. The Contractor and its Sureties shall be responsible for the full expense incidental to satisfying the Guarantee.
- c. Nothing in this section shall be construed to limit, relieve or release the Contractor's liability to NOR for damages sustained as the result of latent defects in the equipment furnished caused by the negligence of the Contractor's agents, employees or Subcontractors. Stated in another manner, the Warranty contained in this section shall not amount to nor shall it be deemed to be a waiver by NOR of any rights or remedies (or time limits in which to enforce such rights or remedies) it may have against the Contractor of the equipment to be furnished under these Specifications for defective workmanship or defective materials under the laws of this State pertaining to acts of negligence.

1.33 Trade Names or Approved Equals

- a. Where shown on the Drawings, or where specified, certain equipment, materials or other items are designated for procurement by a trade name, or the name of a manufacturer and the manufacturer's catalog information, or approved equal. The use of alternate items of equal quality will be allowed only when approved and authorized in writing by NOR. The burden of proof as to comparative quality and suitability of proposed alternates to NOR design applications shall be upon the Contractor who shall furnish, at no expense to NOR, all necessary information required by NOR to make a judgement that the proposal is "equal". Where a given design application utilizing a trade name product is considered to be unique or novel, no alternate item of equipment will be allowed. NOR will be the sole judge as to the acceptability of proposed alternates and this decision shall be final.
- b. "Or Equal": Where the phrase "or equal" or "or equal as approved by NOR" occurs in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically so approved for this Work by NOR prior to submittal of a Bid.
- c. Substitutions will be considered and may be approved if they meet appropriate standards and conditions described herein.
 - (1) Reference in the Contract Documents to any material, product, or process by name, make, or catalog number shall be interpreted as establishing a standard of quality and design intent and

not construed as prohibiting substitutions of any other such material, product, or process, provided such substitution is acceptable and fulfills the design intent of the Work and is accepted through the judgement of the Engineer.

- (2) Acceptance of substitutions will not relieve the Contractor from responsibility for complying with the requirements of the Contract Documents.
- (3) At the discretion of the Engineer, testing of material samples proposed for substitutions may be required. The testing shall be done by an independent testing laboratory selected by NOR, the costs for which shall be borne by NOR. Costs for retesting failed items shall be paid by the Contractor.
- (4) At the discretion of the Engineer, the Contractor may be required to furnish a written guarantee, in addition to that already required, insuring the satisfactory performance of the proposed substitute.
- (5) All additional labor and materials which may be required for the proper installation of any substitution, or required as a consequence of any substitution, shall be provided at no additional cost to NOR.
- (6) Bids shall be based upon the data given in these Contract Documents, or upon previously approved items or techniques designated as "approved equals" by NOR. Where calculations or shop drawings are required for approval, allowance shall be made for meeting the requirements of the Contract Documents and all applicable codes and ordinances.
- (7) Bidders may, in addition, submit separate bids using materials and equipment of other manufacturers, providing the difference in cost is stated for each item proposed to be substituted.
- (8) Provide to NOR all information necessary and required to evaluate proposed substitutions. Do not base bid on the assumption that a material will be approved as equal by NOR unless the item has been specifically approved for this Work by NOR prior to receipt of Bids.

1.34 Submittals

- a. To ensure that the desired products are furnished and installed in accordance with design intent, certain procedures are established for the advance submittal of design data and its approval or rejection by NOR. See Division 1, Section 01 25 00, for specific requirements.

1.35 Requirements Described Elsewhere

- a. Listing of Submittals required for the various portions of the Work are included in the Sections of these Specifications pertaining to the Work involved and occasionally in the Drawings for miscellaneous items of equipment, materials, or procedures.

1.36 Schedule of Submittals

- a. Compile a complete schedule of Submittals according to the provisions of Division 1, Section 01300 Submittals and Substitutions. Submit such a schedule to NOR for comment and approval. The approved Schedule of Submittals shall be kept current at all times and an updated copy shall be kept at the job for review. All Submittals shall be furnished within thirty-five (35) calendar days after the award of Contract. Within fourteen (14) calendar days NOR will return appropriately marked copy(ies).

1.37 Samples

- a. Unless otherwise specifically directed by NOR, all samples shall be of the precise article proposed to be furnished.
- b. Submit all samples in the quantity which is required to be returned, plus one (1) which will be retained by NOR.

1.38 Colors

- a. Unless the precise colors and patterns are specifically described in the Contract Documents, whenever a choice of color or pattern is available for a specified product submit accurate color charts to NOR for review and selection.

1.39 Shop and Fabrication Drawings

- a. General: Drawings furnished by NOR shall not be construed as shop or fabrication drawings. The Contractor shall furnish to NOR four (4) copies of all shop and fabrication drawings which are required prior to the fabrication or placement of any or all items. With each shop drawings Submittal, an accompanying letter of transmittal shall be provided. Shop drawings for equipment shall show all installation dimensions and details. All shop drawings must bear the stamp of approval of the Contractor showing evidence that it has checked and approved the drawings. Any drawings submitted without said stamp of approval will not be considered and will be returned to the Contractor for proper resubmission. If the shop drawings show variances from the requirements of the Contract because of standard shop practice or other reasons, the Contractor shall make specific mention of such variation(s), including reasons therefore. This explanation shall be provided in the accompanying letter of transmittal in order that, if acceptable, suitable action may be taken; otherwise, the Contractor will not be relieved of the responsibility for executing the Work in accordance with the Contract Specifications and Drawings. NOR will not review shop drawings until all details are properly provided.
- b. Time for Submission and Review: Shop and fabrication drawings for all items of work to be furnished and installed under this Contract shall be submitted within thirty-five (35) calendar days of the date of the award of Contract for the Work. Within fourteen (14) calendar days after receipt of shop or fabrication drawings, NOR will return one copy of these drawings to the Contractor marked as appropriate. The Contractor shall then revise the shop or fabrication drawings as requested by NOR or submit an alternate to the revision and perform the Work in accordance with the revision or approved alternate therefore. The Contractor shall furnish NOR one transparency plus a blue-line copy of the reviewed and revised shop and fabrication drawings immediately upon furnishing the requested revisions or entering the approved alternate on the shop drawings and prior to delivery or installation of any materials shown thereon.
- c. Effect of NOR's Review: NOR reserves the right to require, at no additional cost over the prices stated in the Bidding Schedule, such modifications or alterations as deemed necessary by NOR to make the equipment conform to the provisions and intent of the Contract. Notwithstanding the above provisions, the Contractor shall be responsible for obtaining proper fit and dimensions, and adequate strength to withstand specified dynamic and static loadings on materials and equipment being furnished; NOR's review will apply only to the general arrangement of the materials or equipment. Fabrication or other work done prior to the Contractor's receipt of the reviewed shop and fabrication drawings will be done entirely at the Contractor's risk. Review of the Contractor's drawings by NOR shall not be held to relieve the Contractor of any obligations to meet all the requirements of the Contract or relieve the Contractor of the responsibility for the correctness of such drawings. The Contractor shall, at no expense to NOR, make any changes in the design which are necessary to make the equipment conform to the provisions and intent of the Contract.

- d. Line-Out Drawings for Pipework: Prior to fabrication of any pipe materials described in the Specifications, the Contractor shall submit line layout drawings and shop drawings showing all pertinent details for field installation and shop fabrication of pipe, pipefittings, and special requirements for pipelines, including joint details for approval by NOR. Line layout drawings shall indicate, at a minimum, pipe class, type, location and dimensions of fittings and special requirements. Pipe, pipefittings, special applications, and joints therefore either shall be fabricated in accordance with the Specification Drawings or in accordance with the Contractor's shop drawings, at the option of NOR. Delay in submittal of either line layout drawings for field installation work or delay in submittal of shop drawings will be cause for NOR to retain liquidated damages.

1.40 Record Drawings

- a. The Contractor shall continuously maintain required As-Built Drawings as the job progresses. A separate set of prints, for this purpose only, shall be kept at the job site. It shall be required that these Drawings be up to date and so certified at the conclusion of all underground work and at the completion of major phases of the Work. Progress payments may be held if appropriate As-Built are not current.
- b. Upon completion of the Work, submit neatly prepared reproducible Drawings showing all changes to the Work. Drawings shall be stamped "AS-BUILT" with a signature, printed name, and date the Drawings were certified to be correct. Deliver the corrected and completed "As-Built" Drawings to NOR. Delivery of the Drawings will not relieve the Contractor of the responsibility of furnishing further required information should discrepancies be found between site conditions and Drawings.
- c. The following work shall be included in the "As-Built" records: Underground utilities and layout including sewer, gas, water, electric, telephone, cable TV, etc., plumbing, heating, ventilating, air conditioning, irrigation, and other systems as may be specifically requested. All as-built work shall be properly dimensioned on the Plans to assure accurate location.
- d. Final payment will not be made without submittal to NOR of complete As-Built for all Work described.

1.41 Manuals

- a. Where manuals are required to be submitted upon completion of the installation, prepare all such manuals in durable binders approximately 8½" x 11" in size and with at least the following features:
 - (1) Identification readable on the outside of the cover listing Project title and stating general nature of the manual and the Project to which it pertains.
 - (2) Tab index reference to all sections of the manual. Tabs shall be neatly identified with typed or clearly hand lettered headings.
 - (3) Complete instructions regarding operation and maintenance of all equipment shall be included.
 - (4) A listing of replaceable parts, including part numbers, as provided on product specification sheets. Identify suppliers and their addresses and phone numbers.
 - (5) Copies of all guarantees and warranties issued for Project products.
 - (6) Copies of the approved shop drawings with all data concerning changes made during construction.

- b. Where contents of manuals include manufacturer's catalog pages, clearly indicate the precise items included in this installation and delete, or otherwise clearly indicate, all manufacturer's data with which this installation is not concerned. Provide names, addresses and phone numbers of local manufacturer's representatives and manufacturer's corporate offices.
- c. All manuals shall be submitted and judged complete and satisfactory by NOR prior to release of the Project final payment.

PROGRESS AND COMPLETION – TERMINATION

1.42 Progress and Completion of Work

- a. General: Unless otherwise directed by NOR, the Contractor shall begin work within ten (10) calendar days after the date of the Notice to Proceed. All Work to be performed under this Contract shall be completed within the time specified in the Supplementary Conditions beginning with the Notice to Proceed date.

1.43 Progress Schedule and Order of Completion

- a. To ensure completion of the Work within the time specified and to assist NOR in the scheduling of other work, the Contractor shall submit to NOR within seven (7) calendar days after receiving the Notice to Proceed a detailed schedule showing the proposed dates of beginning and completion of all significant items of work under the Contract. If the actual progress of the Work varies materially from the proposed program, or the Contractor proposes to change the program for any reason, the revised construction program shall be submitted to NOR. The proposed original and revised program shall be adequate, in the opinion of NOR, to meet the requirements for completion of the Work as herein set forth. If, in the opinion of NOR, the Contractor's proposed program or the actual progress of the Work is insufficient to meet the specified requirements, Contractor shall take such steps as necessary to accomplish the required progress and completion.
- b. When in the judgement of NOR it is necessary to accelerate any part of the Work ahead of schedule, the Contractor shall, when directed, concentrate his efforts on such part of the Work.

1.44 Contractor's Forces, Equipment and Progress

- a. The capacity of the Contractor's construction plant, sequence of operations, methods of operation, and the forces employed shall at all times during the continuance of the Contract be subject to approval of NOR and shall be such as to ensure the completion of the Work within the specified period of time. The Contractor shall furnish sufficient forces, construction plant and equipment, and shall work such hours, including extra shifts and overtime operations, and shall furnish such other necessities so as to assure the prosecution of work in accordance with the Specifications and the time requirements specified herein.

1.45 Failure to Complete the Work in the Time Agreed Upon

- a. Liquidated Damages: It is agreed by the parties to the Contract that time is of the essence; and that in case all the Work is not completed before or upon the expiration of the time as set forth, or within any time extensions that may be granted, damage will be sustained by NOR, and that it may be impracticable to determine the actual amount of damage by reason of such delay; and it is, therefore, agreed that the Contractor will pay to NOR as damages the amount per day as indicated in the Supplementary Conditions section of these Specifications.
- b. In addition, NOR shall have the right to charge to the Contractor and to deduct from the final payment for the Work, the actual cost to NOR for engineering, inspection superintendence, and other

overhead expenses which are directly chargeable to the Contract, and which accrue during the period of such delay except that the cost of final inspection and preparation of the final estimate shall not be included in such charges. The expenses and damages described above shall be deducted from any money due to the Contractor under this Contract, and the Contractor and responsible sureties shall be liable for any such excess cost, and expense shall be mutually agreed to as damages suffered by NOR on account of the failure of the Contractor to complete the Work within the time limit of the Contract.

1.46 Use of Completed Portions, Right to Operate Facilities

- a. NOR, at any time, and from time to time, during the performance of the Work, may enter the Work for the purpose of installing any necessary work, NOR labor, or other contracts, and for any other purpose in connection with the installation of facilities.
- b. If, prior to completion and final acceptance of all the Work, NOR takes possession of any structure or work (whether completed or otherwise) comprising a portion of the Work with the intent of retaining possession thereof (as distinguished from temporary possession contemplating the return to the Contractor), then, while NOR is in possession of the same, the Contractor shall be relieved of liability for loss and damage to structure other than that resulting from the Contractor's fault or negligence. Such taking of possession by NOR shall not relieve the Contractor from any provisions of this Contract respecting such structure, other than to the extent specified in the preceding sentence, nor constitute a final acceptance of such structure.
- c. The Contractor shall make available, in the areas occupied, any utility, heating and cooling as are in condition to be put in operation at the time of early occupancy. All responsibility for said equipment shall remain with the Contractor while it is so operated. However, an itemized list of each piece of equipment so operated with the date operation commences shall be made and certified by NOR. This list shall be the basis for the commencement of guarantee of NOR's early occupancy. NOR shall pay for all utility costs which arise out of the occupancy by NOR during construction.

1.47 Time of Work – Termination for Delay – Time Extensions

- a. The Contractor shall at all times employ such force, plant materials, and tools as will be sufficient, in the opinion of NOR, to prosecute the work at not less than the rates fixed under the terms of the Contract and to complete the Work or any separable portion thereof within the time limits fixed therein. If the Contractor refuses or fails to prosecute the Work or any separable part thereof, with such diligence as will ensure the completion within the time specified in the Contract, or any extension thereof, or fails to complete said Work within such time, NOR may by written notice to the Contractor terminate his right to proceed with the Work or such part of the Work which has been delayed. In such event, NOR may take over the Work and prosecute the same to completion by contract or otherwise, and may take possession of and utilize in completing the Work such materials, appliances, equipment, and plants as may be on the site of the Work and necessary therefore. Whether or not the Contractor's right to proceed with the Work is terminated, it and its sureties shall be liable for all damages, including attorney's fees, sustained or incurred by NOR by reason of such default and in enforcing the provisions hereof against the Contractor.
- b. On award of the Contract, it is the responsibility of the Contractor to properly and promptly order materials and equipment required for the Work. If evidence presented demonstrates that, in spite of the Contractor's efforts, government-established priority controls delay material deliveries, suitable extension of time will be made.
- c. The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

- (1) The delay in the completion of the Work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to acts of God, acts of the public enemy, acts of NOR in either its governmental or contractual capacity, acts of another contractor in the performance of a contract with NOR, fires, floods (excluding site flooding due to groundwater), epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, unusually severe weather, or delays of Subcontractors and Suppliers arising from unforeseeable causes beyond the control and without fault or negligence of either the Contractor or such Subcontractors and Suppliers.
 - (2) The delay caused the Contractor by specific order of NOR to stop Work or by the performance of extra work ordered by NOR or by failure of NOR to provide the necessary site for installation or by unforeseen causes beyond the control of the Contractor such delay will entitle the Contractor to an equivalent extension of time, except as otherwise provided.
 - (3) The Contractor within ten (10) days from the beginning of any such delay (unless NOR grants further period of time before the date of final payment under the Contract) notifies NOR in writing of the causes of delay and requests an extension of time.
- d. NOR shall ascertain the facts and the extent of the delay and extend the time for completing the Work when, in its judgement, the findings of fact justify such an extension, and findings of fact shall be final and conclusive on the parties.
 - e. The rights and remedies of NOR provided in this clause are in addition to any of the rights and remedies provided by law or under this Contract.
 - f. A request for an extension of time, or the granting of an extension of time shall not constitute a basis for any claim against NOR for additional compensation. The Contractor shall be deemed to have waived any claim for additional compensation and does hereby so waive any such claim.

1.48 Termination for Reasons Other Than Delivery

- a. If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed for the Contractor on account of his insolvency and when not discharged within ten (10) days after his appointment, or if he should persistently or repeatedly refuse or fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials to diligently pursue the Work, or if he should fail to make prompt payment to Subcontractors or for material or labor, or if he should persistently disregard laws, ordinances, or instructions of NOR, or otherwise be guilty of a substantial violation of any provision of the Contract, then NOR, may without prejudice to any right or remedy, and after giving the Contractor ten (10) days written notice, terminate the employment of the Contractor and take possession of the premises and of all equipment, materials, tools, and other facilities thereon and finish the Work by whatever method NOR may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished. If upon completion of the Work the total cost to NOR, including attorney's fees, in connection therewith shall be less than the amount which would have been paid if the Work had been completed by the Contractor in accordance with the terms of the Contract, then said difference shall be paid to the Contractor in the same manner as the final payment under the Contract. If the expense, including the attorney's fees, incurred by NOR on account of termination of employment of the Contractor and subsequent completion of the Work by NOR by whatever method NOR may deem expedient shall exceed said amount which the Contractor would otherwise have been paid, the Contractor and its sureties shall be liable to NOR for the full amount of such excess expense.
- b. In addition to its rights under subparagraph (a) hereof, if at any time before completion of the Work under the Contract it shall be determined by NOR that reasons beyond the control of the parties will

not allow completion of the Work, or if the Work shall be stopped by an injunction of a court of competent jurisdiction or by order of any competent authority, NOR may, upon ten (10) days written notice to the Contractor, discontinue the Work and terminate the Contract. Upon service of such Notice of Termination, the Contractor shall discontinue the Work in such manner, sequence, and at such times as NOR may direct. The Contractor shall have no claim for damages for such discontinuance or termination, nor any claim for anticipated profits on the Work thus dispensed with, nor any other claim except for the Work actually performed up to the time of complete discontinuance including any Extra Work ordered by NOR to be done, for any liquidated damages due hereunder in accordance with the provisions relating to Suspension of Work.

QUALITY CONTROL OF THE WORK

1.49 Assignment

- a. Neither party to the Contract shall assign the Contract or sublet it as a whole or in part without the written consent of the other, nor shall the Contractor assign any monies due, or to become due to him hereafter, without the previous written consent of NOR.

1.50 Superintendence – Personal Attention

- a. The Contractor shall designate, in writing, before starting Work, an authorized representative who shall have complete authority to represent and to act for the Contractor. Said authorized representative shall be present at the site of the Work at all times while Contract Work is actually in progress.
- b. During periods when Work is suspended, arrangements acceptable to NOR shall be made for any emergency work which may be required.
- c. Information shall include the representative's name, street address, town and telephone number, and the mailing address if different from the street address.

1.51 Legal Address of Contractor

- a. The address given in the Contractor's Proposal on which the Contract is founded is hereby designated as the place to which all notices, letters and other communications to the Contractor shall be mailed or delivered. The delivering at the above-named place or the depositing in a postpaid wrapper directed to the above place, in any post office mailbox, regularly maintained by the United States Post Office, of any notice, letter, or other communication to the Contractor, and the date of said service shall be the date of such delivery or mailing. Such address may be changed at any time by written notice signed by the Contractor and delivered to NOR.
- b. Nothing herein contained shall be deemed to preclude or render in-operative the service, letter or other communication served upon the Contractor personally.

1.52 Authority of NOR

- a. NOR has full authority to interpret the Contract Documents, to conduct the construction review and inspection of the Contractor's performance, and to decide questions which arise during the course of the Work, and its decisions on these matters shall be final and binding. NOR has the authority to reject all Work and materials which do not conform to the Contract Documents.
- b. If at any time the Contractor's work force, tools, plants or equipment appear to NOR to be insufficient or inappropriate to secure the required quality of work or the proper rate of progress, NOR may order the Contractor to increase their efficiency, improve their character to augment their number or to

substitute other personnel, new tools, plants or equipment, as the case may be, and the Contractor shall comply with such order.

- c. NOR shall have the authority to make minor changes in the Work, not involving extra costs, and not inconsistent with the purposes of the Work.
- d. Any order given by NOR, not otherwise required by the Contract Documents shall, on request of the Contractor, be given or confirmed by NOR in writing.
- e. Whenever work, methods of procedure, or any other matters are made subject to direction or approval, such direction or approval will be given by NOR.

1.53 Inspection of Work

- a. Unless otherwise provided, all equipment, materials, and work shall be subject to inspection and testing by NOR and either Kern County or the City of Bakersfield who permit the Work. NOR will observe the progress and quality of the Work and determine, in general, if the Work is proceeding in accordance with the intent of the Contract Documents. NOR shall not be required to make comprehensive or continuous inspections to check quality of the Work and shall not be responsible for construction means, methods, techniques, sequences, or procedures or for safety precautions and programs in connection with the Work. Visits and observations made by NOR shall not relieve the Contractor of the obligation to conduct comprehensive inspections of the Work and to furnish proper materials and perform acceptable Work, and to provide adequate safety precautions, in conformance with the intent of the Contract.
- b. Whenever the Contractor varies the period during which Work is carried on each day, notice shall be given to NOR so that proper inspection may be provided. Any Work done in the absence of NOR shall be subject to rejection. Proper facilities for safe access to inspect all parts of the Work, shall at times be maintained for the necessary use of the agency, and agents of the State, NOR, City, or County at all reasonable hours for inspection by such agencies to ascertain compliance with laws and regulations.
- c. One or more inspectors may be assigned to observe the Work and to act in matters of construction under this Contract. It is understood that such inspector shall have the power to issue instructions and make decisions within the limitations of the authority of NOR. Such inspection shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the Work and to furnish proper materials and perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract.
- d. NOR and its representatives shall at all times have access to the Work whether it is in preparation or progress, and the Contractor shall provide safe and convenient facilities for such access and for inspection. If the Specifications, NOR's instructions, laws, ordinances, or any public authority require any material, equipment, or work to be specially tested or approved, the Contractor shall give NOR timely notice of its readiness for inspection, and if the inspection is by an authority other than NOR, of the time fixed for inspection. Inspections by NOR will be made promptly and where practicable at the source of supply.
- e. Work performed without inspection may be required to be removed and replaced under proper inspection and the entire cost of removal, replacing, including the cost of NOR furnished materials used in the Work, shall be borne by the Contractor, regardless of whether or not the Work exposed is found to be defective. Examination of questioned Work that is installed without inspection, may be ordered by NOR and, if so ordered, the Work must be uncovered by the Contractor. All costs to examine and inspect this Work, including testing, shall be paid by the Contractor.

- f. Inspection of the Work shall not relieve the Contractor's obligation to fulfill the Contract as herein prescribed or in any way alter the standard of performance provided by the Contractor, and defective Work shall be made good, and unusual materials may be rejected, notwithstanding that such work and materials have been previously overlooked by NOR and accepted or estimated for payment. If the Work or any part thereof shall be found defective the Contractor shall within ten (10) calendar days make good such defect in a manner satisfactory to NOR. If the Contractor shall fail or neglect to make ordered repairs of defective Work to remove the condemned materials from the Work within ten (10) calendar days after direction in writing by NOR, NOR may make the ordered repairs or remove the condemned materials, and deduct the cost thereof from any monies due to the Contractor.
- g. The Contractor shall furnish promptly without additional charge, all facilities, labor, and materials reasonably needed by NOR for performing all inspections and tests. The Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.
- h. Except as specifically required under the materials specifications, all tests of materials furnished by the Contractor shall be made by NOR in accordance with commonly recognized standards of national organizations. The Contractor shall furnish such samples of materials as required by NOR without charge. No material shall be used unless it has received favorable review by NOR.
- i. Where such inspection and testing are to be conducted by an independent laboratory the sample or samples of materials to be tested shall be selected by such laboratory or NOR and not by the Contractor.
- j. The cost of special inspection and tests of materials made by or at the request of NOR, in addition to those required herein, shall be borne by NOR, except for the costs of retesting rejected materials which shall be borne by the Contractor.
- k. Where any part of the Work is being done under an encroachment permit or building permit, or is subject to Federal, State (including any agency created by interstate contract), County or Municipal codes, laws, ordinances, rules, or regulations, representatives of the governing agency shall have full access to the Work and shall be allowed to make any inspection or test in accordance with such permits, codes, laws, ordinances, rules or regulations. If advance notice of the readiness of the Work for inspection by the governing agency is required, the Contractor shall furnish such notice to the appropriate agency.

1.54 Compliance With Laws – Permits, Regulations, Taxes

- a. The Contractor shall be aware and ensure the Subcontractors are fully informed of all applicable State and National laws, County and Municipal ordinances and regulations which in any manner affect those engaged or employed in the Work, or the materials and equipment used in the Work, or which in any way affect the conduct of the Work and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.
- b. Nothing in the Contract Documents is to be construed to permit work not conforming to governing codes. When Contract Documents differ from governing codes, the Contractor shall furnish and install the higher standards called for without extra charge. If any discrepancy or inconsistency is discovered in the Drawings or Specifications, or in this Contract in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to NOR in writing. The Contractor shall at all times observe and comply with all such applicable laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify NOR and all of NOR's officers, agents, and servants against any claim or liability arising from or based upon the violation of

any such law, ordinance, regulation, order or decree, whether by the Contractor or by the Contractor's employees. Particular attention is called to the following:

- (1) Contractor is an independent Contractor and shall, at its sole cost and expense, comply with all laws, rules, ordinances, and regulations of all governing bodies having jurisdiction over the Work, obtain all necessary permits and licenses therefore, pay all manufacturers taxes, sales taxes, use taxes, processing taxes, and all federal and state taxes, insurance and contributions for social security and unemployment which are measured by wages, salaries or any remuneration paid to Contractor's employees, whether levied under existing or subsequently enacted laws, rules, or regulations. Contractor shall also pay all property tax assessments on materials or equipment used until acceptance by NOR.
- (2) Without limitation, materials furnished and performance by Contractor hereunder shall comply with Safety Orders of the Division of Industrial Safety, State of California, Federal Safety and Regulations of the Bureau of Labor, Department of Labor, and any other applicable Federal regulation.
- (3) The Contractor upon request shall furnish evidence satisfactory to NOR that any and all of the foregoing obligations have been or are being fulfilled. The Contractor warrants to NOR that it is licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the Work, and that it has and will have, throughout the progress of the Work, the necessary experience, skill, and financial resources to enable it to perform this Contract.
- (4) Federal Safety Standards. Contractors shall comply with provisions of the Contract Work Hours and Safety Standard Act (40USC 327 et seq.) and the regulations. NOR shall not have liability for non-compliance.

1.55 Correction of Work

- a. The Contractor shall promptly remove from the premises all materials rejected by NOR as failing to conform to the Contract Documents whether incorporated in the Work or not. The Contractor shall, at sole expense, promptly replace such materials and perform all work made necessary by such replacement including the making good of all work of others destroyed or damaged by such removal or replacement.
- b. If the Contractor does not remove such rejected work and materials within a reasonable time, fixed by written notice, NOR may remove them or may store the material at the expense of the Contractor. If the Contractor does not pay for the expense of the removal within ten (10) days thereafter, NOR may, upon ten (10) days written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof, after deducting all of the costs and expenses that should have been borne by the Contractor. If the proceeds of the sale are not sufficient to reimburse NOR for costs and expenses that should have been borne by the Contractor, the additional costs and expenses shall be paid by the Contractor and may be deducted by NOR from monies due or to become due the Contractor under this Contract.

1.56 Cleanup

- a. During the progress of the Work, the Contractor shall maintain the site and related structures and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of Work and before the final estimate is submitted, the Contractor shall at its own cost and expense remove from the vicinity of the Work all discarded plants, temporary buildings, rubbish, unused work materials, concrete forms, temporary bridging and other like materials, belonging to it or used under its direction during the construction and in the event of its failure to do so, the same

may be removed by NOR after ten (10) calendar days notice to the Contractor, such removal to be at the expense of the Contractor. Where the construction has crossed yards or driveways, they shall be restored by the Contractor to the complete satisfaction of NOR, at the Contractor's expense.

MEASUREMENT AND PAYMENT

1.57 Scope of Payment

- a. The Contractor shall accept the compensation as herein provided as full payment for (a) furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed Work, (b) performing all Work contemplated and embraced under the Contract, (c) loss or damage arising from the nature of the Work or from the action of the elements or from any unforeseen difficulties which may be encountered during the prosecution of the Work until the acceptance by NOR, and for all risks of every description connected with the prosecution of the Work, (d) all expenses incurred in consequence of the suspension or discontinuance of the Work as herein specified, and (e) completing the Work according to the Contract Documents. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor's obligation to make good any defective work or material.
- b. No compensation will be made in any case for loss of anticipated profits. Increased or decreased work involving supplemental agreements or Extra Work will be paid for as provided in such agreement.

1.58 Measurement of Quantities

- a. Where the Contract provides for payment on a lump sum price basis, no measurement of quantity will be made. Where the Contract provides for payment on a unit price basis, the quantities of Work performed will be computed by NOR on the basis of measurements by its representative and these measurements shall be final and binding.
- b. All quantities of Work computed under the Contract shall be based upon measurement by NOR according to United States Measurements and Weights.

1.59 Progress Estimates and Payments

- a. For each calendar month of Contract Work, the Contractor will prepare and NOR approve and submit a progress estimate of all Work performed under the Contract. Within the first week of each succeeding calendar month, an estimate of the value of all Work done under the Contract, including any amounts due the Contractor for Extra Work, change orders, or pursuant to approved claims for extra cost incurred during the preceding month will be prepared. In arriving at the value of the Work done, consideration will be given to value of Contractor furnished major items which have been delivered to the job site for incorporation in the Work, provided that a payment in full has been made by the Contractor.
- b. NOR will pay the Contractor ninety percent (90%) of the amount of each progress estimate approximately 2 weeks after receipt of the invoice. Ten percent (10%) of the amount of each estimate shall be retained by NOR until final completion and acceptance of all Work under the Contract. The Contractor may, in accordance with the provisions of Government Code Section 4590, substitute securities for monies which NOR may withhold to insure performance under this Contract. Provided, however, that if NOR at any time after fifty percent (50%) of the Work has been completed, finds that satisfactory progress is being made, NOR may pay any or all of the remaining progress payments in full.

1.60 Payment of Taxes

- a. The Contract price paid for the Work shall include full compensation for payment of all taxes, whether imposed by Federal, State, or local government.

1.61 Warranty of Title

- a. No material, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the Work and agrees upon completion of all Work to deliver to the premises together with all improvements and appurtenances constructed or placed thereon by it to NOR free from any claim, liens, security interest, or charges and further agrees that neither it nor any persons, firm, or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon the premises or any improvement or appurtenances thereon.

1.62 Satisfaction of Liens

- a. If any liens or claims remain unsatisfied after final payment to the Contractor, the Contractor shall pay or refund to NOR any money that the latter may be compelled to pay to discharge such liens and costs together with reasonable attorney's fees incurred by NOR in enforcing the Contractor's obligations hereunder.

1.63 Waiver of Interest

- a. NOR shall have no obligation to pay and the Contractor hereby waives the right to recover interest with regard to monies which NOR is required to withhold by reason of judgement, order, statute, or judicial process.

1.64 Disputes

- a. Except as otherwise specifically provided in the Contract Documents, NOR will decide all claims of the Contractor and all disputes arising under and by virtue of the Contract and its decision whether on the merits or as to the timeliness, shall be final and conclusive unless it is fraudulent, capricious, arbitrary, or so grossly erroneous as to necessarily imply bad faith. Such claim or dispute will be processed and decided as soon as practicable upon its submission and availability of additional supportive information necessary to make a decision.

1.65 Right to Withhold Payments

- a. In addition to all other rights and remedies of NOR hereunder and by virtue of the law, NOR may withhold or nullify the whole or any part of any partial or final payment to such extent as may reasonably be necessary to protect NOR from loss on account of:
 - (1) Payments which may be past due and payable for just claims against the Contractor or any Subcontractor for labor or materials furnished for the performance of this Contract.
 - (2) For defective Work not remedied.
 - (3) For failure of the Contractor to make proper payments to Subcontractors.
 - (4) A reasonable doubt that the Contract can be completed for the balance then unpaid.

- (5) Damage to Work or to property.
 - (6) Failure of the Contractor to keep his work progressing in accordance with the provided time schedule.
 - (7) NOR's costs for Contractor's failure to complete Work within the allowed time or as required by the Contract.
 - (8) Failure of Contractor and/or Subcontractors to submit in a timely fashion, correctly completed compliance certifications and payroll sheet forms.
 - (9) Cost of Insurance arranged by NOR due to cancellation or reduction of Contractor's insurance.
 - (10) Contractor/Subcontractor prevailing wage underpayments to protect employees.
- b. Whenever NOR shall, in accordance herewith, withhold any monies otherwise due the Contractor, written notice of the amount withheld and the reasons therefore will be given the Contractor. After the Contractor has corrected the enumerated deficiencies, NOR will promptly pay to the Contractor the amount so withheld. When monies are withheld to protect NOR against claims or liens of mechanics, materialmen, subcontractors, etc., NOR may, at its discretion, permit the Contractor to deliver a surety bond in terms and amount satisfactory to NOR, indemnifying NOR against any loss or expense. Upon acceptance thereof, NOR shall release to the Contractor monies so withheld.

1.66 Claims for Extra Work

- a. It is hereby mutually agreed that the Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act or failure to act by NOR or the happening of any event, thing, or occurrence, unless he shall have given NOR due written notice of potential claims within ten (10) days after said occurrence.
- b. The Contractor may submit a claim to NOR concerning any matter for which a protest or a notice of potential claim is filed within sixty (60) days following the submission of said protest or notice, unless due to the nature of the claim or the uncompleted state of the Work, it is impracticable to determine the amount or the extent of the claim within such period, in which case a claim may be submitted at the earliest time thereafter that such determination can be made but in no event later than the Final Release by the Contractor.
- c. It is the intention of this Article that the differences between the parties arising under and by virtue of the Contract be brought to the attention of NOR at the earliest time possible in order that such matters may be settled. The Contractor hereby agrees that there shall be no right to additional compensation for any claim that may be based on any act, failure to act, event, thing, or occurrence for which no written notice of potential claim as herein required was filed.

1.67 Extra Work

- a. New and unforeseen work necessary to complete the Contract will be classified as Extra Work. NOR shall determine when such work is necessary which is not covered by the Contract prices named in the Proposal Bid.
- b. The Contractor shall do such work and furnish labor, material and/or equipment necessary therefore upon receipt of a Change Order. No Extra Work will be paid for unless ordered in writing on an approved Change Order. A verbal approval by NOR's representative may be given prior to issuance of a written formal Change Order. This shall be notice to continue with specific work.

c. Payment for Extra Work shall be determined by one or more of the following methods:

- (1) Lump Sum – By an acceptable lump sum proposal by the Contractor.
- (2) Agreed Unit Prices
- (3) Force Account or Cost-Plus Basis as follows:
 - A. Direct Labor Cost: Charges for all the labor furnished and used by the Contractor shall be made for manual classifications up to and including general foremen. It will not include charges for Assistant Superintendents, Superintendents, Office Personnel, Timekeepers, and Maintenance Mechanics. The time charged to Extra Work shall be subject to the daily approval of NOR and evidence of such daily approval shall be submitted with the billing. Labor rates to calculate the costs shall be those basic wages including current employer contributions for fringe benefits and including applicable subsistence and travel allowances, all as actually paid to workmen under collective bargaining agreements or as a regular practice of the employer. No time or charges will be allowed except when the men are actually engaged in the proper, efficient, and diligent performance or completion of the Extra Work as authorized. Overtime shall not be worked without prior approval of NOR.
 - B. Equipment Cost: Charges for the rental and operation of the equipment furnished and used by the Contractor shall be made for all prime construction and automotive equipment. It shall not include charges for listed equipment or major tools costing \$1,000.00 or less. Equipment time charges shall be subject to the daily approval of NOR and evidence of such daily approval submitted with the billing. The equipment rental and operation rates used shall be those agreed upon by NOR and the Contractor prior to commencement of the Extra Work and shall include an approved allowance for depreciation. No time or charges will be allowed except when equipment is actually being used for the proper and efficient performance or completion of the Extra Work as authorized.
 - C. Material Costs: Charges for the cost of materials furnished by the Contractor shall be made providing such furnishing was specifically authorized in the Extra Work order and the actual use verified by NOR. Charges shall be net cost to the Contractor delivered at the job, including all applicable sales taxes and vendor's invoice must accompany the billing along with verification of use of such materials by NOR.
 - D. Tools, Supplies, Overhead, Supervision and Profit: These items will be allowed in the amount of fifteen percent (15%) of the total direct labor cost, equipment cost, and material cost, as defined above. In addition, for workmen's usage of any or all unlisted small tools having a minute unit cost, each of less than \$1,000, NOR will allow a charge of six percent (6%) of the total cost of total basic labor wages, exclusive of fringe benefits and subsistence allowances.

It is understood that labor, materials, and equipment may be furnished by the Contractor, or by the Subcontractor, or by others on behalf of the Contractor. When the Extra Work is performed by other than the Contractor's organization, the Contractor shall reach an agreement with such other forces as to the distribution of payments. No additional payment therefore will be made by NOR.

In order that a proper determination may be made by NOR of the net cost of labor and materials entering into Extra Work, in accordance with the procedure heretofore stated, the Contractor shall furnish weekly an itemized statement of materials and labor supplied together with the cost of such materials and the wages paid and shall furnish vouchers for

quantities and prices of such labor, materials, or work. In case the Contractor fails to comply with the above provisions, there shall be no claim for compensation against NOR.

NOR reserves the right to contract with any person or firm other than the Contractor for any or all Extra Work. The Contractor's attention is especially called to the fact that there shall be no entitlement to claims for damages or anticipated profits on any portions of Work that may be omitted.

1.68 Final Acceptance and Date of Completion

- a. Upon substantial completion of the Work, the Contractor shall notify NOR and applicable Project Inspector that a Final Inspection of the Project is needed. During this Inspection, which will be arranged as soon as possible, NOR representatives, Contractor, and other parties concerned with the contractual requirements will compile a Final Inspection Correction List, incorporating all items or work and corrections required to complete the Project. In addition, at this time the Contractor shall arrange for the delivery of manufacturers' data, manuals, operating instructions, and keys to NOR.
- b. Whenever the Contractor shall deem all Work under this Contract to be complete in accordance therewith, NOR shall be so notified in writing and NOR shall promptly ascertain and provide in writing a listing of any additional work required. When all the provisions of the Contract have been fully complied with to the satisfaction of NOR a final estimate for the total value of all Work performed by the Contractor will be prepared. The Date of Completion shall be the date of acceptance of the Work by NOR.

1.69 Final Payment

- a. Within ten (10) days after completion, NOR will file in the Office of the County Recorder, a Notice of Completion of the Work done herein by the Contractor. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion, the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor, subject to any requirement concerning the furnishing of a maintenance bond, and excepting any such sum or sums as may lawfully be withheld in accordance with the provisions of the Contract. Contractor shall invoice for this Final Payment. All prior progress estimates upon which partial payments have been made, being merely estimates shall be subject to correction in the Final Payment.

1.70 Final Release

- a. Acceptance by the Contractor of the Final Payment shall operate as and shall be a release to NOR, its officers, agents and employees from all claims and liability to the Contractor for anything done or furnished or withheld and for anything relating to the Work or any act of neglect of NOR, its officers, agents and employees excepting only claims against NOR for any amounts withheld by NOR at the time of such payment.

END OF SECTION

**SECTION 00 73 00
SUPPLEMENTARY CONDITIONS OF THE CONTRACT**

I N D E X

1.01	Definition
1.02	NOR
1.03	Location of Project
1.04	Specification Drawings
1.05	Materials Furnished by NOR
1.06	Progress of the Work and Time of Completion
1.07	Liquidated Damages
1.08	Insurance
1.09	Licenses

SECTION 00 73 00 SUPPLEMENTARY CONDITIONS OF THE CONTRACT

1.01 Definition

- a. These Supplementary Conditions modify, delete from, and/or add to the General Conditions of the Contract.
- b. All conditions, or portions thereof, which are not specifically modified, deleted, or superseded hereby, remain in full effect.
- c. The General Conditions also may be supplemented elsewhere in the Contract Documents by provisions located in, but not necessarily limited to, Division 1 of the Specifications.

1.02 NOR

- a. The term "NOR" refers to North of the River Recreation and Park District's authorized staff or designated representative retained in a consulting capacity to perform various specialized work such as engineering, architecture, surveying, testing, etc.
- b. The term "NOR" shall be used in lieu of all references to Owner.

1.03 Location of Project

- a. Address of the Project site is: 4303 Patton Way
- b. The Project is in: Bakersfield, Kern County, California.

1.04 Specification Drawings

- a. The location of the Work, its general nature and extent, and the form and general dimensions of all appurtenant works are shown on the Drawings included and made a part of these Specifications, entitled: N/A.

1.05 Materials Furnished by NOR

- a. The following equipment and/or materials will be furnished by North of the River Recreation and Park District for use on this project: N/A.
- b. The location of the items is N/A.
- c. The Contractor is responsible to arrange for pick-up of the equipment and/or materials and transportation of the same to the Project site unless otherwise noted.

1.06 Progress of the Work and Time of Completion

- a. The Contractor shall begin Work upon receipt of NOR's Notice to Proceed and shall complete all Work under the Contract within (45) consecutive calendar days of the Notice to Proceed.
- b. The Contractor shall give NOR written notice received not less than 72 hours prior to proposed time of construction. The Contractor shall be entirely responsible for any delay in the Work which may be caused by his failure to give such notice.

1.07 Liquidated Damages

- a. General: It is agreed by the parties to the Contract that in case all Work called for under the Contract in any parts and requirements is not completed within the number of days specified for such Work plus time extensions that may be granted, damage will be sustained by NOR; and it is further agreed that it is, and will be, impractical and extremely difficult to ascertain and determine that actual damage which NOR will sustain by reason of such delay. It is therefore agreed that the Contractor will pay to NOR as fixed, agreed, and liquidated damages the amount of **\$1,000** per day for each calendar day's delay in completion of such Work. The Contractor agrees to pay said liquidated damages as herein provided for, and further agrees that NOR may deduct the amount thereof from the monies due or to become due the Contractor under this Contract.

1.08 Insurance

- a. The Contractor shall at its sole expense maintain in effect at all times during the performance of the Work and during the full Guarantee Period under the Contract not less than the following coverage and limits of insurance, which shall be maintained with insurers having an "AM Best A-VII" or higher rating and under forms of policy satisfactory to NOR.
- b. Workmen's Compensation and Employer's Liability: In accordance with Section 3700 of the Labor Code, every Contractor will be required to secure the payment of compensation to its employees in one or more of the following ways:
 - (1) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
 - (2) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to the employees.
 - (3) For any County, City, City and County, Municipal Corporation, Public District, Public Agency, or any Political Subdivision of the State, including each member of a pooling arrangement under a joint exercise of powers agreement (but not the State itself), by securing from the Director of Industrial Relations a certificate of consent to self-insure against Worker's Compensation claims, which certificate may be given upon furnishing proof satisfactory to the director of ability to administer Worker's Compensation claims properly, and to pay Worker's Compensation claims that may become due to its employees.
 - (4) In accordance with Section 1861 of the Labor Code, each Contractor shall sign and file with NOR the following certification prior to performing the Work of the Contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract".
- c. Comprehensive General Liability Coverage: Limits of liability shall be at least One Million Dollars and no/100 (\$1,000,000.00) which shall be a Combined Single Limit on Automobile, Bodily Injury and Property Damage and General Liability and Property Damage. A minimum aggregate of Two Million Dollars and no/100 (\$2,000,000.00) is required for this Project. The Bodily Injury and Property Damage Liability policy or policies shall contain the following:
 - (1) Provision or endorsement naming North of the River Recreation and Park District, its consultants, its officers, employees, agents, Boards and Commissions as additional insured as respects liabilities arising out of the performance of any Work under the Contract and providing that such insurance is primary insurance as respects the interest of the agency and its agents

that any other insurance maintained by NOR and its agents is excess and not contributing insurance with that required hereunder.

- (2) "Cross Liability" or "Severability of Interest" Clause.
- (3) Broad Form Property Damage, Contractual Liability. Protective Liability and Completed Operations coverages and elimination of any exclusion regarding loss or damage to property caused by explosion or resulting from collapse of buildings or structures or damage to property underground, commonly referred to by insurers as the "XCU" hazards.
- (4) Provision or endorsement stating that such insurance, subject to all of its other terms and conditions, applies to the liability assumed by the Contractor under this Contract, including without limitation that set forth in Section 00 72 00 General Conditions, 1.22 "Indemnity and Litigation Costs."

1.09 Licenses

- a. The Contractor shall be a licensed Contractor in the State of California certified to perform the Work of the Project. This Project requires a Class A – General Engineering Contractor or C-12 Earthwork and Paving or approved combination of Contractor's license(s).

END OF SECTION

SECTION 00 91 13
ADDENDA

THIS SECTION RESERVED FOR ADDENDA ISSUED DURING BID PROCESS.

END OF SECTION



Division 01 00 00 General Requirements

SECTION 01 11 00 SUMMARY OF WORK

PART I - GENERAL

1.01 Application of the Contract and Inclusion of Division 1

- a. The Contract, General and Supplementary Conditions of the Contract and all Sections of Division 1 apply in full to all other Divisions and Sections of these Specifications as though included therein.

1.02 Description

- a. The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction and all materials and equipment incorporated or to be incorporated in such construction. The following is only a partial list of the Work required and is not to be construed as binding in any way. The Contractor is responsible for estimating the actual Work required.

(02) Existing Conditions: N/A

(03) Concrete: N/A

(04) Masonry: N/A

(05) Metals: N/A

(06) Wood, Plastics, and Composites: N/A

(07) Thermal & Moisture Protection: N/A

(08) Openings: N/A

(09) Finishes: N/A

(10) Specialties: N/A

(11) Equipment: N/A

(12) Furnishings: N/A

(13) Special Construction: N/A

(14) Conveying Equipment: N/A

(15) Not Used

(16) Not Used

(17) Not Used

(18) Not Used

- (19) Not Used
- (20) Not Used
- (21) Fire Suppression: N/A
- (22) Plumbing: N/A
- (23) Heating, Venting, and Air Conditioning (HVAC): N/A
- (24) Not Used
- (25) Integrated Automation: N/A
- (26) Electrical: N/A
- (27) Communications: N/A
- (28) Electronic Safety and Security: N/A
- (29) Not Used
- (30) Not Used
- (31) Earthwork:
 - 31 00 00 – Earthwork and Grading
 - 31 10 00 – Site Clearing
- (32) Exterior Improvements:
 - 32 05 23 – Flexible Pavement Rehabilitation
 - 32 05 23 – Cement and Concrete for Exterior Improvements
- (33) Utilities: N/A
- (34) Transportation: N/A
- (35) Waterway and Marine Construction: N/A
- (36) Not Used
- (37) Not Used
- (38) Not Used
- (39) Not Used
- (40) Process Interconnections: N/A
- (41) Material Processing and Handling Equipment: N/A
- (42) Process Heating, Cooling, and Drying Equipment: N/A
- (43) Process Gas and Liquid Handling, Purification, and Storage Equipment: N/A

(44) Pollution and Waste Control Equipment: N/A

(45) Industry-Specific Manufacturing Equipment: N/A

(46) Water and Wastewater Equipment: N/A

(47) Not Used

(48) Electrical Power Generation: N/A

1.03 Work Provided by Others

- a. The following work or products shall be provided by NOR and coordinated with the Contractor's work: None.

1.04 Permits and Fees

- a. The Contractor shall pickup all permits, licenses, and fees required by all governing entities and necessary for successful completion of the Project (NOR will pay building permit and plan review fees). The Contractor is responsible to abide by governing codes and regulations, obtaining inspections, approvals and tests which may be required. Inspection sign-off cards, notices of non-compliance, field plans or other correspondence with governing agencies are property of NOR and shall be returned to NOR after all County or City inspections and approvals are complete.

PART II – PRODUCTS

2.01 Materials and Equipment

- a. The following is only a partial list of materials and equipment to be provided by the Contractor as components of this Work: SEE SPECIFICATIONS.

PART III – EXECUTION

3.01 Site Visitation

- a. The General Contractor shall visit the site to review all existing conditions of the premises that may have a bearing on the performance of the Work. Furthermore, the Contractor will personally inspect the grounds for comparison with pertinent sections of the Drawings and Specifications and will immediately notify NOR of any discrepancies. No allowance can subsequently be made on behalf of a Contractor for errors due to negligence in failing to be acquainted with the existing site conditions.

3.02 Layout of Work

- a. Field surveys for control of all grading, construction and layout shall be the responsibility of the Contractor. All such surveys, including construction staking, shall be under the supervision of a California licensed surveyor or civil engineer. Staking shall be performed on all items ordinarily requiring grade and alignment at intervals normally accepted by the agencies and trades involved. Payment of construction survey staking shall be considered as included in the various items of work and no additional allowance will be made therefore.

3.03 Installation

- a. The Contractor shall provide and perform skillful craftsmanship using appropriate tools with current and lawful methods to complete the Work according to the Contract, Plans, and Specifications.

Knowledge of and compliance with codes, regulations and procedures of governing agencies, as well as attention to manufacturer's recommendations shall be expected of the Contractor and all employees.

END OF SECTION

SECTION 01 23 00 ALTERNATES

PART I – GENERAL

1.01 Description

- a. Work Included: To allow NOR to compare total costs where alternate materials and methods might be used, and to enable NOR's decision prior to awarding the Contract, certain alternatives have been established.
- b. Related Work Described Elsewhere:
 - (1) Pertinent sections of these Specifications describe the materials and methods required for the various alternatives.
 - (2) The method for stating the proposed Contract Sum is described on the Bid Form.

1.02 Submittals

- a. Limit of Alternatives:
 - (1) Do not submit alternatives other than those described in the section of these Specifications.
 - (2) Submit proposed Contract Sums reflecting all alternatives as required on the Bid Form.
- b. Other Submittals:
 - (1) Normal submittals for the various items are described in pertinent sections of these Specifications.
 - (2) No special submittal of materials or methods for the alternatives is required other than as described in the pertinent sections.

PART II – PRODUCTS

2.01 Coordination of Alternatives

- a. Use all means necessary to properly coordinate NOR's ultimate selection of alternatives into the Work and to ensure proper and adequate provision for the installation of all selected materials and methods.

PART III – EXECUTION

3.01 Product Handling

- a. If NOR elects to proceed on the basis of one or more of the alternatives, make all modifications to the Work required in the furnishing and installation of the selected alternatives to the approval of the Engineer and at no additional cost to NOR, except as proposed on the Bid Form.

END OF SECTION

SECTION 01 25 00 SUBMITTAL AND SUBSTITUTION PROCEDURES

PART I – GENERAL

1.01 Description

- a. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined, either by manufacturer's name and catalog number or by compliance with recognized industry standards. All products specified are the standard for this Project. Products proposed to be substituted for those specified on the Project must be submitted for approval prior to use. Follow the process described in this section for all products proposed to be substituted. To ensure that the desired products are furnished and installed in accordance with the design intent, certain procedures are established for the advance submittal of design data and its approval or rejection by the Owner.

1.02 Related Work Described Elsewhere

- a. Submittals required for the various portions of the Work are included in the sections of these Specifications pertaining to the Work involved. Occasionally it is included in the Drawings for miscellaneous items of equipment, materials, or procedures.

1.03 Product Handling

- a. Make all submittals of shop drawings, samples, and requests for substitution in accordance with the provisions of these Specifications.

PART II – PRODUCTS

2.01 Schedule of Submittals

- a. Submittals required by the respective Specifications shall be submitted according to the "General Conditions" Item 1.36.

2.02 Shop Drawings and Product Information Submittals

- a. Unless otherwise specifically directed by the Engineer, make all shop drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection and interface to the Work.
- b. Submit all shop drawings in the form of one reproducible sepia and sufficient blue line prints of each shop drawing so that NOR can keep one copy plus the reproducible sepia and the Contractor will have sufficient copies for its needs. In the case of product information, submit sufficient copies so that NOR may keep two (2) copies and the Contractor shall have adequate copies for their needs. Where contents of submitted product information include data not pertinent to the submittal, clearly indicate which portion is being submitted for review.
- c. Copies that are not needed by NOR will be returned to the Contractor for its use.

2.03 Samples

- a. Samples shall be provided according to the provisions of the "General Conditions" Item 1.37 Samples.

2.04 Colors

- a. Prepare color samples for products as described by the "General Conditions" Item 1.38 Colors. Unless the precise color and pattern is specifically described in these Contract Documents, whenever a choice of color or pattern is available in a specified product submit accurate color charts and pattern charts to NOR for its review and selection.

2.05 Manuals

- a. Manuals shall be provided according to Item 1.41 Manuals of the "General Conditions."

2.06 Record Drawings

- a. Record drawings are required according to the provisions of the "General Conditions" Item 1.40 Record Drawings.

2.07 Substitutions

- a. Substitutions may be approved if they meet the requirements of Item 1.33c Substitutions of the "General Conditions."

PART III – EXECUTION

3.01 Coordination

- a. Prior to submittal for Engineer's review:
 - (1) Fully coordinate all submittals by determining and verifying all field dimensions and conditions, materials, catalog numbers, and similar data. Each submittal must bear the General Contractor's approval stamp indicating that it has determined and verified that the submittal data meets the requirements of the Project. The stamp must include the date and initial of the responsible reviewer.
 - (2) Coordinate as required with all other trades and with all public agencies involved.
 - (3) Secure all necessary prior approvals and signify by stamp, or other means, that they have been secured.
 - (4) Clearly indicate all deviations from the Contract Documents.

3.02 Identification of Submittals or Substitutions

- a. Name and address of submitter, plus name and telephone number of individual who may be contacted for further information.
- b. Name of Project.
- c. Drawing Number and Specification Section Number to which the submittal applies.

3.03 Timing of Submittals

- a. Costs of delays occasioned by tardiness of submittals may be back-charged as necessary and shall not be borne by NOR. In general, no submittals of a finish nature will be reviewed until all such submittals are received by the Engineer.

3.04 Engineer's Review

- a. The Engineer's review will be only for conformance with the design concept and with the information given in the Contract Documents. The Engineer's review and approval of shop drawings and samples shall not relieve the Contractor of responsibility for deviation from the requirements of the Contract Documents unless the Contractor has informed the Engineer in writing of such deviation at the time of submittal and the Engineer has given written approval to the specific deviation. The Engineer's approval shall not relieve the Contractor from responsibility for errors and omissions in the shop drawings and samples.

3.05 Compliance with Approvals

- a. Do not commence any portion of the Work requiring approval of shop drawings or samples by the Engineer until the submittal has been approved by the Engineer. All such portions of the Work shall be in accordance with the Engineer approved shop drawings and samples.

END OF SECTION

SECTION 01 31 19

PROJECT MEETINGS

PART I – GENERAL

1.01 Description

- a. Work Included: To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, NOR may conduct Project meetings throughout the construction period. The frequency of meetings will be determined based on needs and related to the complexity of the Project.
- b. Related Work: The Contractor's relations with his subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not included as part of Project meetings.

1.02 Quality Assurance

- a. Persons designated by the Contractor to attend and participate in Project meetings must have sufficient authority to commit the Contractor to solutions agreed upon in the Project meetings.

1.03 Agendas

- a. Agenda Items: To the maximum extent practicable, advise NOR at least 24 hours in advance of Project meetings regarding items to be added to the agenda.
- b. Minutes: When meetings are held where both the General Contractor and Subcontractors are required to be present, NOR will compile minutes of the Project meeting and furnish a copy to the Contractor. The Contractor is responsible to communicate this information to its Subcontractors employed on the Project.

PART II – PRODUCTS

(No products are required in this Section)

PART III – EXECUTION

3.01 Meeting Schedule

- a. Project meetings will usually be held at a frequency mutually agreed upon with the Contractor.
- b. Coordinate as necessary to establish a mutually acceptable schedule for meetings.

3.02 Meeting Location

- a. NOR will establish the meeting location. To the maximum extent practicable, meetings will be held at the job site.

3.03 Preconstruction Meeting

- a. A preconstruction meeting will be scheduled within fifteen (15) working days after NOR has awarded the Contract.

- (1) The Contractor and major Subcontractors should have authorized representatives in attendance.
- (2) NOR will advise other interested parties and request their attendance.

3.04 Project Meetings

a. Attendance:

- (1) To the maximum extent practicable, assign the same person or persons to represent the Contractor at Project meetings throughout the Project.
- (2) Subcontractors, materials suppliers, and others may be invited to attend Project meetings in which their aspect of the Work is involved.

b. Minimum Agenda:

- (1) Review, revise as necessary, and approve minutes of previous meetings.
- (2) Review progress of the Work since last meeting, including status of submittals for approval.
- (3) Identify problems which impede planned progress.
- (4) Develop corrective measures and procedures to regain planned schedule.
- (5) Complete other current business.

c. Revisions to Minutes:

- (1) Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meetings.
- (2) Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
- (3) Challenges to the minutes shall be settled at the next regularly scheduled meeting.

END OF SECTION

SECTION 01 32 33

PHOTOGRAPHIC DOCUMENTATION

PART I - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
- B. See CSI Section 01 78 00, Closeout Submittal, for submitting digital media as Project Record Documents at Project Closeout.

1.03 SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same label information as corresponding set of photographs.
 - 1. Digital Images: Submit a complete set of digital image electronic files with each submittal of prints on CD-ROM or USB flash drive (not to be returned). Identify electronic media with date photographs were taken. Submit images that have same aspect ratio as the sensor, uncropped.

PART II - PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in uncompressed TIFF or JPEG/JPG format, produced by a digital camera with minimum sensor size of 8.0 megapixels, and at an image resolution of not less than 1024 by 768 pixels.
- B. Digital Video: Provide video with minimum specifications 1080p at 60 fps or 720p at 240 fps are acceptable, where- as HDR is preferred.

PART III - EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs using the maximum range of depth of field, and that are in

focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
1. Date and Time: Include date and time in filename for each image.
 2. Field Office Images: Maintain one set of images on CD-ROM or USB flash drive in the field office at Project site, available at all times for reference. Identify images same as for those submitted to Architect.
- C. Preconstruction Photographs: Before starting construction, take, digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Owner.
1. Flag construction limits before taking construction photographs.
 2. Take a minimum eight photographs to show existing conditions adjacent to property before starting the Work.
 3. Take a minimum eight photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
- D. Periodic Construction Photographs: Take a minimum 12 digital photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

END OF SECTION

SECTION 01 45 29

TESTING LABORATORY SERVICES

PART I – GENERAL

1.01 Description

a. Work Included:

- (1) From time to time during progress of the Work, NOR may require that testing be performed to determine that materials provided for the Work meet the specified requirements.
- (2) Such testing may include, but is not necessarily limited to: Concrete, structural steel, reinforcing steel, irrigation and plumbing pressure tests, and backflow prevention device operation.
- (3) Cooperate with NOR's selected testing agency and all others responsible for testing and inspecting the Work. Contractor shall coordinate the required tests with the testing entity.
- (4) Provide testing and inspecting specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.

b. Related Work Described Elsewhere:

- (1) Requirements for testing may be described in various sections of these Specifications and the General Conditions of the Contract.
- (2) Where no testing requirements are described, but NOR decides that testing is required, NOR may require testing to be performed under current recognized standards for testing.

c. Work Not Included:

- (1) Selection of testing laboratory: NOR will select an independent testing laboratory.
- (2) Payment for initial testing services: NOR will pay for all initial services of the testing agency as further described in item 2.01 of this Section or approved equal.

1.02 Quality Assurance

- a. Codes and Standards: Testing, when required, will be in accordance with all pertinent codes and regulations and with selected standards of the American Society for Testing and Materials.
- b. Qualifications of Testing Laboratory: The testing laboratory will be qualified to NOR's approval for the type of testing desired.

1.03 Product Handling

- a. Promptly process and distribute all required copies of test reports and related instructions to ensure all necessary retesting and/or replacement of materials with the least possible delay in progress of the Work.

PART II – PRODUCTS

2.01 Payment for Testing Services

- a. Initial Services: NOR will pay for all initial testing services requested or required by codes or ordinances.
- b. Retesting: When the initial test indicates non-compliance with the Contract Documents, all subsequent retesting occasioned by that non-compliance shall be performed by the same agency and the costs thereof will be deducted by NOR from the Contract Sum.

2.02 Code Compliance Testing

- a. Inspections and tests required by codes or ordinances or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

2.03 Contractor's Convenience Testing

- a. Inspection and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

PART III – EXECUTION

3.01 Cooperation with Testing Agency

- a. Access to the Work:
 - (1) Representatives of the testing laboratory shall have access to the Work at all times.
 - (2) Contractor shall provide all required facilities for such access in order that the agency may properly perform its functions.
 - (3) The soils Engineer shall be provided 48 hours advance notice in order to be present at the site during all earthwork activities related to excavation, stripping, backfill and compaction and filling of the site; and to perform periodic compaction tests so that substantial conformance to these recommendations can be established.

3.02 Test Reports

- a. Test reports and verification of test reports of all tests and inspections shall be sent to the Contractor, Engineer, Structural Engineer, NOR, and Building Inspector.

END OF SECTION

SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

PART I – GENERAL

1.01 Description

- a. Temporary facilities and controls required for this Project include, but are not necessarily limited to: temporary utilities such as water, electricity and telephone; field offices and shed; fencing of the construction area; access roads; enclosures such as tarpaulins, barricades and canopies; sanitary facilities; and scaffolding. All such temporary facilities shall be located for convenience and safety and maintained in a safe and sanitary condition at all times until completion of the Contract, then removed from the site.

1.02 Related Work Described Elsewhere

- a. Utility Hook-Up: Install and hook-up the various utility lines described in pertinent sections of the Specifications and/or on the Drawings.

1.03 Compliance with Codes and Regulations

- a. Compliance with all requirements of pertinent safety regulations is described in the General Conditions of the Contract for Construction and shall include, but shall not necessarily be limited to: Industrial Safety, California Administrative Code, Title 8; Public Safety, California Administrative Code, Title 24 Uniform Building Code.

1.04 Product Handling

- a. Use all means necessary to maintain all temporary facilities and controls in proper and safe condition throughout progress of the Work. In the event of damage or loss, immediately make all repairs and replacements necessary and at no additional cost to NOR.

PART II – PRODUCTS

2.01 Temporary Utilities

- a. General: Provide and pay all costs for all utilities required for performance of the Work. Provide safe distribution of required utilities to the job areas for use of all trades.
- b. Temporary Gas and Water: Furnish and install all necessary temporary piping and, upon completion of the Work, remove all such temporary piping.
- c. Temporary Electricity: Furnish and install all necessary temporary wiring; furnish and install area distribution boxes within 100 feet of each portion of the Work so located that the individual trades may use their own construction type extension cords to obtain adequate power and lighting at all points where required by inspectors and for safety.
- d. Telephone: Maintain in the Contractor's field office or in a protected location on the job site a telephone for the use of the subcontractors; the telephone may be coin operated.

2.02 Fencing of the Construction Area

- a. Fencing of the construction area is at the Contractor's discretion. The Contractor shall take whatever precautions it feels necessary to protect the Project while work is in progress.

2.03 Access Facilities

- a. The General Contractor shall provide such access facilities to the construction area as are necessary and required for carrying on the Work and the same shall be kept passable at all times. It shall be responsible for any damage to streets, curbs, and sidewalks due to the use of such facilities, and such damaged portions shall be repaired as required to place them in as good condition as existed before commencement of the Work. Contractors shall comply in every respect with applicable building codes regarding the use of public streets and sidewalks and the proper barricading and lighting of public thoroughfares surrounding the construction activities.

2.04 Enclosures, Tarpaulins, Barricades and Canopies

- a. Furnish, install and maintain for the duration of construction, all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the work in compliance with all pertinent safety regulations. In addition, it is recommended that all existing improvements which are not to be altered or moved be protected by means of temporary barricades or other suitable means.

2.05 Pumping

- a. Keep the site, excavations, and structures free of accumulation of water at all times, whether from underground seepage, rainfall, drainage, or broken utility lines.

2.06 Sanitary Facilities

- a. Temporary toilet arrangements should be made to accommodate construction workers. Sanitary facilities provided on site must comply with the requirements of the "General Conditions" Item 1.06 Sanitary Facilities.

PART III – EXECUTION

3.01 Special Conditions of the Site

- a. The area to be set aside for the use of the Contractor is indicated on the Drawings as "Limit of Work." If work covers an entire site, the limits are the site boundary. Except for subsurface utility work, temporary roads, and other work specifically shown or noted, the Contractor shall confine his exterior operations within the limits of work so indicated.
- b. Work shall not proceed for the site or buildings, if used, until all temporary work such as fences, barricades, job office, and sanitary facilities are furnished and installed.
- c. Parking of vehicles by the construction personnel shall be limited to areas acceptable to NOR.

3.02 Material Storage and Protection

- a. During the progress of the Work, products and materials shall be neatly stored in accordance with the appropriate manufacturer's recommendations and shall be properly cared for and protected from weather, vandalism, and theft.

- b. All installed products and materials shall be adequately protected until such time that NOR accepts the Project.

3.03 Conditions at the Site

- a. The Contractor shall make all necessary inspections of the job site and of the Work to be fully aware of the conditions of all temporary facilities and controls at all times.
- b. Storage of materials during progress of the Work shall be within the "Limits of Work," neatly stacked at points acceptable to NOR. They must be properly cared for and protected from weather, theft, and vandalism.
- c. The Contractor shall make a close inspection of all materials when delivered and shall promptly return all defective materials without waiting for their rejection by the Engineer.

3.04 Removal

- a. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the Work. Remove all such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Engineer.

3.05 Restoration of Area

- a. Upon completion of the Project, all temporary facilities shall be removed from the site and all areas not otherwise improved but which were adversely affected by the Contractor's work shall be returned to their original condition to the satisfaction of NOR.

3.06 Final Site Cleanup

- a. Prior to final inspection, thoroughly clean the entire site and put it into a neat, acceptable condition. Remove from the entire site all construction waste and unused materials, dunnage, loose rock and stones, excess earth, roots, weeds, and all debris of any description resulting from the Work. Hose down and scrub where necessary all new concrete and asphalt pavement dirtied as a result of the Work. Thoroughly remove mortar droppings from concrete walks and other pavements.

END OF SECTION

SECTION 01 71 23

FIELD ENGINEERING

PART I – GENERAL

1.01 Description

- a. Work Included: Provide such field engineering services required for proper completion of the Work including, but not necessarily limited to:
 - (1) Establishing and maintaining grades, lines, and levels.
 - (2) Structural design of shores, forms, and similar items provided by the Contractor as part of the means and methods of construction.
 - (3) Layout of elements of construction.
- b. Related Work:
 - (1) Additional requirements for field engineering also may be described in other Sections of these Specifications.

1.02 Quality Assurance

- a. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

1.03 Submittals

- a. Comply with pertinent provisions of the General Conditions.
- b. Upon request of NOR submit:
 - (1) Data demonstrating qualifications of persons proposed to be engaged for field engineering services.
 - (2) Documentation verifying accuracy of field engineering work.
 - (3) Certification that elevations and locations of improvements are in conformance or nonconformance with requirements of the Contract Documents.

1.04 Procedures

- a. In addition to procedures directed by the Contractor for proper performance of the Contractor's responsibilities:
 - (1) Locate and protect control points before starting work on the site.
 - (2) Preserve permanent reference points during progress of the Work.

- (3) Do not change or relocate reference points or items of the Work without specific approval from NOR.
- (4) Promptly advise NOR when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.
 - A. Reset or replace lost or destroyed reference stakes or markers.
 - B. Locate such replacements according to the original survey control.
 - C. Resetting of grade stakes shall be at Contractor's expense.

END OF SECTION

SECTION 01 73 29 CUTTING AND PATCHING

PART I – GENERAL

1.01 Description

- a. Work Included: This section establishes general requirements pertaining to cutting (including excavating), fitting, and patching of the Work required to:
 - (1) Make the several parts fit properly.
 - (2) Uncover work to provide for installing, inspecting, or both, of ill-timed work.
 - (3) Remove and replace work not conforming to requirements of the Contract Documents.
 - (4) Remove and replace defective work.
- b. Related Work:
 - (1) In addition to other requirements specified, upon NOR's request uncover work to provide for inspection by NOR of covered work, and remove samples of installed materials for testing.
 - (2) Do not cut or alter work performed under separate contracts without NOR's written permission.

1.02 Quality Assurance

- a. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.

1.03 Submittals

- a. Request NOR's Consent:
 - (1) Prior to cutting which effects structural safety, submit written request to NOR for permission to proceed with cutting.
 - (2) Should conditions of the Work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify NOR and secure written permission and the required Change Order prior to proceeding.
 - (3) Submit written notice to NOR designating the time the work will be uncovered, to provide for NOR's observation.

PART II – PRODUCTS

2.01 Materials

- a. For replacement of items removed, use materials complying with pertinent Sections of these Specifications.

2.02 Payment for Costs

- a. Perform required cutting and patching needed to comply with the Contract Documents at no additional cost to NOR. NOR will reimburse the Contractor for extra cutting and patching performed pursuant to the written Change Order after claim for such reimbursement is submitted by the Contractor.

PART III – EXECUTION

3.01 Surface Conditions

- a. Inspection:
 - (1) Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching, and backfilling.
 - (2) After uncovering the work, inspect conditions affecting installation of new work.
- b. Discrepancies:
 - (1) If uncovered conditions are not as anticipated, immediately notify NOR and secure needed directions.
 - (2) Do not proceed until unsatisfactory conditions are corrected.

3.02 Preparation Prior to Cutting

- a. Provide required protection including, but not necessarily limited to shoring, bracing, and support to maintain structural integrity of the Work.

3.03 Performance

- a. Perform required excavating and backfilling as required under pertinent other Sections of these Specifications.
 - (1) Perform cutting and demolition by methods which will prevent damage to other portions of the Work and provide proper surfaces to receive installation of repair and new work.
 - (2) Perform fitting and adjusting of products to provide finished installation complying with the specified tolerances and finishes.

END OF SECTION

SECTION 01 74 00 CLEANING AND WASTE MANAGEMENT

PART I – GENERAL

1.01 Description

- a. Work Included: Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this Section.
- b. Related Work: In addition to standards described in this Section, comply with requirements for cleaning as described in pertinent other Sections of these Specifications.

1.02 Quality Assurance

- a. Conduct daily inspections, and more often if necessary, to verify that requirements for cleanliness are being met.
- b. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

PART II – PRODUCTS

2.01 Cleaning Materials and Equipment

- a. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.02 Compatibility

- a. Use only cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

PART III – EXECUTION

3.01 Progress Cleaning

- a. General:
 - (1) Retain stored items in an orderly arrangement allowing maximum access. The items should not impede traffic or drainage. Provide required protection of materials.
 - (2) Do not allow accumulation of scrap, debris, waste material, and other items that are not required for construction.
 - (3) At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
 - (4) Provide adequate storage for all items awaiting removal from the job site. Observe requirements for fire and environmental protection.

b. Project Site Cleaning:

- (1) Daily, and more often, if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
- (2) Weekly, and more often, if necessary, inspect all arrangements of materials stored on the site, repositioning, and cleaning items as needed.
- (3) Maintain the site neat and orderly at all times.

c. Preparatory Cleaning:

- (1) As required, preparatory to installation of succeeding materials, clean the structures or pertinent portions thereof to the degree recommended by the manufacturer of the succeeding material. Use equipment and materials recommended by product manufacturers to achieve the necessary cleanliness.
- (2) Following the installation of finish floor materials, clean and protect the finish floor from all sources of damaging elements.

3.02 Final Cleaning

a. General:

- (1) "Clean," for the purpose of this Article, and except as may be specifically provided otherwise, shall mean the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.
- (2) Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Leave all items thoroughly cleaned ready for use.

b. Site:

- (1) Unless otherwise specifically directed by NOR, broom clean and wash paved areas on the site and public paved areas adjacent to the site.
- (2) Completely remove resultant debris.

c. Structures:

- (1) Visually inspect surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
- (2) Remove all traces of splashed materials from finished and adjacent surfaces.
- (3) If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structure.
- (4) In the event of stubborn stains not removable with water, light sandblasting or other cleaning may be required at no additional cost.
- (5) Glass - clean inside and outside leaving surfaces free of streaks.

- (6) Polished surfaces - if surfaces require routine application of buffed polish, apply the polish according to manufacturer's recommendations.

3.03 Cleaning During Owner's Occupancy

- a. Should NOR occupy the Work or any portion thereof prior to its completion by the Contractor, the Contractor shall appropriately clean the Project site. Responsibilities for cleaning shall then be accomplished by NOR.

END OF SECTION

SECTION 01 74 19 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART I – GENERAL

1.01 Description

- a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 Summary

- a. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging non-hazardous demolition waste.
 - 2. Disposing of non-hazardous demolition and construction waste.

1.03 Terminology

- a. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- b. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- c. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- d. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- e. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- f. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.04 Performance Requirements

- a. General: Facilitate recycling and salvage of materials as required.

1.05 Informational Submittals

- a. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- b. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight, tickets, receipts and invoices.

1.06 Quality Assurance

- a. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

PART II – PRODUCTS

PART III – EXECUTION

3.01 Plan Implementation

- a. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
 - 1. Comply with operation, termination, and removal requirements in CSI, Section 01 50 00, Temporary Facilities and Controls.
- b. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at the Project sites.
- c. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, plant structures and equipment, and other adjacent occupied and used facilities.
 - 1. Comply with CSI, Section 01 50 00, Temporary Facilities and Controls for controlling dust and dirt, environmental protection, and noise control.

3.02 Salvaging Demolition Waste

- a. Salvaged Items for Sale: Not permitted on Project sites.
- b. Salvaged Items for Owner's Use: Salvage Items for Owner's use and handle as follows:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area designated by Owner
 - 5. Protect items from damage during transport and storage.
- c. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs; caps and/or plugs shall be sealed in a manner to prevent vandalism. Protect equipment from exposure to weather.

3.03 Recycling Demolition Waste, General

- a. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.

- b. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- c. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project sites to the maximum extent practical according to approved construction waste management plan.
 - 1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project sites. Include list of acceptable and unacceptable materials at each container and bin.
 - A. Inspect containers and bins for contamination and remove contaminated materials if found.
 - 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile materials away from construction areas. Do not store within drip line of remaining trees.
 - 4. Store components off the ground and protect from the weather.
 - 5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

3.04 Disposal of Waste

- a. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project sites and legally dispose of them in a landfill or incinerator acceptable to authority having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjustment surfaces and areas.
- b. Burning: Do not burn waste materials.
- c. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION

SECTION 01 78 00 CLOSEOUT SUBMITTALS AND REQUIREMENTS

PART I – GENERAL

1.01 Description

- a. Work Included: Provide an orderly and efficient transfer of the completed Work to NOR.
- b. Related Work:
 - (1) Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in the Divisions of these Specifications.
 - (2) Activities relative to Contract Closeout are described in, but not necessarily limited to, Items 1.14, 1.40, 1.41, 1.45, 1.56, 1.65, 1.68, 1.69, and 1.70 of the General Conditions of this Contract.

1.02 Quality Assurance

- a. Prior to requesting inspection by NOR, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

1.03 Procedures

- a. Substantial Completion:
 - (1) Notify NOR of readiness for inspection described by Item 1.68a of the General Conditions of the Contract.
 - (2) Within a reasonable time after the Contractor's notice, NOR will inspect the Project and prepare a correction list.
 - (3) Should NOR determine that the Project is not substantially complete:
 - A. NOR will promptly notify the Contractor, in writing, giving the reasons therefore in accordance with Item 1.68b of the General Conditions of the Contract.
 - B. The Contractor shall remedy the deficiencies and notify NOR when ready for reinspection.
- b. Final Completion: When all Work is complete, NOR will prepare a "Notice of Completion" as defined in Item 1.65, also in accordance with Item 1.69 of the General Conditions of the Contract.
- c. Project Closeout – Provide the following to complete the Work of this Project:
 - (1) Project Record Documents described in Section 01 78 39 and Items 1.40 and 1.41 of the General Conditions of the Contract.
 - (2) Warranties and bonds.
 - (3) Keys and keying schedule
 - (4) Spare parts and materials extra stock.

- (5) Evidence of compliance with requirements of governmental agencies having jurisdiction including, but not necessarily limited to:
 - A. Certificates of Inspection.
 - B. Certificates of Occupancy.
- (6) Lien releases.
- (7) List of subcontractors, service organizations and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times including nights, weekends, and holidays.

1.04 Instruction

- a. Instruct NOR's personnel in proper operation and maintenance of systems, equipment, and similar items which were provided as part of the Work.

END OF SECTION

SECTION 01 78 23 OPERATION AND MAINTENANCE DATA

PART I - GENERAL

1.01 Description

- a. Work Included: To aid the continued operation and maintenance and to provide a positive source of information regarding the products incorporated into the Work, furnish and deliver the data described in this Section and in pertinent other Sections of these Specifications.
- b. Related Work:
 - (1) Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - (2) Required contents of submittals also may be amplified in pertinent other Sections of these Specifications.

1.02 Quality Assurance

- a. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.

1.03 Submittals

- a. Comply with pertinent provisions of Section 01 25 00.
- b. Submit a copy of a preliminary draft of the proposed manual(s) to NOR for review and comments.
- c. Unless otherwise directed in other Sections or in writing by NOR, submit two copies of the final manual to NOR prior to training of operation and maintenance personnel.

PART II - PRODUCTS

2.01 Instruction Manuals

- a. Where instruction manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provisions of this Section.
- b. Format:
 - (1) Size – 8 ½" x 11".
 - (2) Paper – White bond, at least 20-lb. weight.
 - (3) Text – Neatly written or printed.

- (4) Drawings – 11" in height preferable; bind in with text; foldout acceptable; larger drawings acceptable by fold to fit within the manual and provide a drawing pocket inside rear cover or bind in with text.
 - (5) Fly Sheets – Separate each portion of the manual with neatly prepared fly sheets briefly describing contents of the ensuing portion; fly sheets may be in color.
 - (6) Binding – Use heavy-duty plastic or fiberboard covers with binding mechanism concealed inside the manual; 3 ring binders will be acceptable.
 - (7) Measurements – Provide all measurements in U.S. standard units such as feet and inches, pounds, etc.
- c. On or through the front cover and spine of each manual clearly identify the Project. At least the following information should be provided:

OPERATION AND MAINTENANCE INSTRUCTIONS

Name and Address of Work

Name of Contractor

General Subject of the Manual

Space for Approval Signature of NOR

Approval Date

- d. Contents – include at least the following:
- (1) Neatly typewritten index near the front of the manual giving immediate information as to location within the manual of all emergency information regarding the installation.
 - (2) Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
 - (3) Complete nomenclature of all equipment parts.
 - (4) Complete nomenclature and part number of all replaceable parts, name, and address of nearest vendor, and all other data pertinent to procurement procedures.
 - (5) Copy of all guarantees and warranties issued.
 - (6) Manufacturers' bulletins, cuts and descriptive data where pertinent, clearly indicating the precise items included in this installation and deleting or clearly indicating all manufacturers' data that is not pertinent to this installation.
- e. Digital Format

PART III - EXECUTION

3.01 Instruction Manuals

- a. Preliminary:
- (1) Prepare a draft of each proposed manual.

- (2) Show general arrangement, nature of contents, probable number of drawings and their size, and proposed method of binding and covering.
 - (3) Secure NOR's approval prior to proceeding.
- b. Final: Complete the manuals in strict accordance with the approved preliminary drafts and NOR's review comments.

END OF SECTION

SECTION 01 78 39 PROJECT RECORD DOCUMENTS

PART I – GENERAL

1.01 Description

a. Work Included:

- (1) Throughout the progress of the Work, maintain an accurate record of changes in the Contract Documents, as described in Article 3.01 below.
- (2) Upon completion of the Work, transfer the recorded changes to a set of Record Documents, as described in Article 3.02 below.

b. Related Work:

- (1) Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- (2) Other requirements affecting Project Record Documents may appear in pertinent other Sections of these Specifications.

1.02 Quality Assurance

a. Accuracy of Records:

- (1) Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
- (2) Accuracy of records shall be such that future search for items shown in the Contract Documents may rely reasonably on information obtained from the approved Project Record Documents.

b. Make entries within 24 hours after receipt of information that the change has occurred.

1.03 Product Handling

- a. Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of all recorded data to the final Project Record Documents.
- b. In the event of loss of recorded data, use means necessary to again secure the data to NOR's approval.
 - (1) Such means shall include, if necessary, in the opinion of NOR, removal and replacement of concealing materials.
 - (2) In such case, provide replacements to the standards originally required by the Contract Documents.

PART II - PRODUCTS

2.01 Record Documents

- a. Job Set: Promptly following receipt of the Owner's Notice to Proceed, secure from NOR at no charge to the Contractor one complete set of all Documents comprising the Contract.
- b. Final Record Documents: At a time nearing the completion of the Work, secure from NOR at no charge to the Contractor one complete set of sepia transparencies of all Drawings in the Contract to be prepared as the reproducible "As Built" Drawings.

PART III - EXECUTION

3.01 Maintenance of Job Set

- a. Immediately upon receipt of the job set described in Paragraph 2.01-a above, identify each of the Documents with the title, "Record Documents-Job Set."
- b. Preservation:
 - (1) Considering the Contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of NOR.
 - (2) Do not use the job set for any purpose except entry of new data and for review by NOR, until start of transfer of data to final Project Record Documents.
- c. Making entries on Drawings:
 - (1) Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required.
 - (2) Date all entries.
 - (3) Call attention to the entry by a "cloud" drawn around the area or areas affected.
 - (4) In the event of overlapping changes, use different colors for the overlapping changes.
- d. Make entries on all pertinent Documents.
- e. Conversion of Schematic Layouts:
 - (1) In some cases on the Drawings, arrangement of conduits, circuits, piping, ducts, and similar items are shown schematically and are not intended to portray precise physical layout.
 - A. Final physical arrangement is determined by the Contractor, subject to NOR's approval.
 - B. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
 - (2) Show on the job set of Record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.01-e-1 above.

- A. Clearly identify the item by accurate note such as "cast iron drain," "galv. water," and the like.
 - B. Show, by symbol or note, the vertical location of the item ("under slab," "in ceiling plenum," "exposed," and the like).
 - C. Make all identification sufficiently descriptive that it may be related reliably to the Specifications.
- (3) NOR may waive the requirements for conversion of schematic layouts where, in NOR's judgment, conversion serves no useful purpose. However, do not rely upon waivers being issued except as specifically issued in writing by NOR.

3.02 Final Project Record Documents

- a. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation and examination.
- b. Approval of recorded data prior to transfer:
 - (1) Following receipt of the transparencies described in Paragraph 2.01-b above, and prior to start of transfer of recorded data thereto, secure NOR's approval of all recorded data.
 - (2) Make required revisions.
- c. Transfer of data to Drawings:
 - (1) Carefully transfer change data shown on the job set of Record Drawings to the corresponding transparencies, coordinating the changes as required.
 - (2) Clearly indicate at each affected detail and Drawing a full description of changes made during construction, and the actual location of items described in subparagraph 3.01-e-1 above.
 - (3) Call attention to each entry by drawing a "cloud" around the area or areas affected.
 - (4) Make changes neatly, consistently, and with the proper media to assure longevity and clear reproduction.
- d. Transfer of data to other Documents:
 - (1) If the Documents, excluding Drawings, are kept clean during progress of the Work, and if entries thereon are approved by NOR and neatly noted, the job set of such Documents may be accepted as final Record Documents.
 - (2) If such Documents are not acceptable to NOR, secure new copies from NOR and carefully transfer the changed data to the new copy to the satisfaction of NOR.
- e. Review and Submittal:
 - (1) Submit the completed set of Project Record Documents to NOR as described in Paragraph 1.03-d above.

- (2) Participate in review meetings as required.
- (3) Make required changes and promptly deliver the final Project Record Documents to NOR.

3.03 Changes Subsequent to Acceptance

- a. The Contractor has no responsibility for recording changes in the Work subsequent to Final Completion, except for changes resulting from work performed under Warranty.

END OF SECTION



Division 31 00 00 Earthwork

SECTION 31 00 00 EARTHWORK AND GRADING

PART I – GENERAL

1.01 Description

a. Work Included:

- (1) These Specifications and Plans describe earthwork pertaining to site grading, including, but not limited to, furnishing all labor and equipment necessary for clearing and grubbing; stripping; preparation of ground surfaces to receive fill; excavation; placement and compaction of structural and non structural fill; disposal of excess materials and products of clearing, grubbing and stripping; and any other work necessary to bring ground elevations to the lines and grades shown on the Project Plans. The Contractor shall be responsible for survey staking of grades and locating of all site improvements. It is the intent that cut and fill shall balance on the site with no haul off or haul in required. To accommodate minor discrepancies of 10% or less, grades may be so modified as approved by NOR's Planning and Construction Director, to achieve a balanced earthwork project. All new grades shall meet existing grades at streets and property lines. It is essential that all new slopes be established so that smooth transitions are maintained to permit easy mowing by reel type lawn mowers. Grading along walks shall be performed so as to eliminate or greatly reduce erosion of earth onto walks, into the street, etc.
- (2) Trenching, excavations, backfill and compaction as required for utilities, sitework, footings and foundations.
- (3) When grading is considered complete, the Contractor shall sufficiently stake and/or mark location of all future improvements so that NOR's representative can verify grading will accommodate future development. Locations shall at a minimum locate all structures, recreational elements, parking and walkway centerlines.

b. Related Work Described Elsewhere:

- | | |
|-------------------|------------------|
| (1) Site Clearing | Section 31 10 00 |
|-------------------|------------------|

1.02 Quality Assurance

- a. Refer to Section 01 45 00 - Testing Laboratory Services.
- b. Requirements of Regulatory Agencies: Conform to the latest addition of the Uniform Building Code, Chapter 70, "Excavation and Grading," as adopted or modified by local jurisdiction.
- c. Testing Agent: The Soils Testing Agency shall be notified 48 hours prior to the commencement of any earthwork which is critical or which requires the use of a testing agency. Earthwork testing shall be performed and reported according to the following outline:
 - (1) Visually approve fill material; perform suitability tests if required.
 - (2) Supervise placement of controlled fills and backfills. Perform field density tests as required.
 - (3) Inspect and approve completed and prepared excavations.

1.03 Definitions

- a. **Excavation:** Excavation shall be defined within the context of these Specifications as earth material excavated for the purpose of construction fill embankment; grading the site to elevations shown on Project Plans; or placing underground pipelines, conduits, or other subsurface utilities or minor structures. Excavations shall be made true to the line shown on Project Plans and to within plus or minus one-tenth (0.1) of a foot, of grades shown on the accepted site grading plans.
- b. **Compaction or Compacted:** Wherever expressed or implied within the context of these Specifications shall be interpreted as compaction to ninety (90%) percent of the maximum density obtainable by ASTM TEST METHOD D1557-78 (METHOD A), such as subgrade preparation under slabs, walks and baseball infields. Open areas to receive turf and trees shall be compacted eighty to eighty-five (80-85%) percent tested by the same ASTM TEST. Streets and parking lot areas shall be compacted to ninety-five (95%) percent, unless otherwise specified. It shall in any event be in conformance with the encroachment permit requirements.
- c. **Grading Plane:** The grading plane is the surface of the basement material upon which the lowest layer of subbase, base, pavement, surfacing or other specified layer is placed.

PART II – PRODUCTS

2.01 Materials

- a. **Fill and Backfill Materials:**
 - (1) Provide soil materials free from organic matter and deleterious substances, containing no rocks or lumps over six (6") inches in greatest dimension, and with not more than fifteen percent (15%) of the rocks or lumps larger than two and three eighths inches (2-3/8") in their greatest dimension.
 - (2) Fill material is that material removed from excavations or imported from off-site borrow areas consisting predominantly of granular, non-expansive soils free from roots and other deleterious matter. Fill material is subject to the approval of the Soils Engineer.
 - (3) Do not permit rocks having a dimension greater than one (1") inch in the upper twelve (12") inches of fill or embankment.
 - (4) Cohesionless material used for structural backfill: Provide sand free from organic material and other foreign matter, and as approved by the Soils Engineer.
 - (5) Where granular base is required under building slabs, pavement, etc., provide aggregate complying with requirements of the appropriate sections of these Specifications.
- b. **Engineered Fill:** Engineered fill shall be construed within the body of these Specifications as soil or soil-rock mixtures placed to raise the grade of the site or to backfill excavations and upon which the Soils Engineer has performed sufficient tests and has made sufficient observation during placement to issue a written statement confirming substantial conformance with Project Earthwork Specifications.
- c. **Topsoil:**
 - (1) Where and if shown on the Drawings or otherwise required, provide topsoil consisting of friable, fertile soil of loamy character, containing an amount of organic matter normal to the region, capable of sustaining healthy plant life, and reasonably free from subsoil, roots, heavy or still

clay, stones larger than two (2") inches in greatest dimension, noxious weeds, sticks, brush, litter, and other deleterious matter.

- (2) Obtain topsoil from sources within the project limits, or provide imported topsoil obtained from sources outside the project limits, or from both sources. Soils from outside the project limits must be approved by NOR.
- d. Weed Killer: Where required on the Plans, provide a dry, free-flowing, dust-free chemical compound, soluble in water, capable of inhibiting growth of vegetation, and approved for use on this Work by governmental agencies having jurisdiction.

PART III – EXECUTION

3.01 General

- a. Verify drawing dimensions and elevations with actual field conditions. Inspect related work and adjacent surfaces and report discrepancies and conditions which prevent proper execution of the work to NOR.
- b. Utilities:
 - (1) Unless shown to be removed, protect active utility lines shown on the Drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to NOR.
 - (2) If active utility lines are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted. Costs for this work will be handled as extra work.
 - (3) If known utility service is interrupted as a result of work under this section, immediately restore service by repairing the damaged utility at no additional cost to NOR.
 - (4) If existing utilities are found to interfere with the permanent facilities being constructed under this section, immediately notify NOR and secure instructions.
 - (5) Do not proceed with permanent relocation of utilities until written instructions are received from NOR.
- c. Dust and Noise Abatement: During the entire period of construction keep the Project area and/or material being loaded or graded sprinkled with water to reduce airborne dust annoyance to premises and surroundings. Equipment or employee generated noise shall be kept to a reasonable level associated with construction.

3.02 Subgrade Improvement

- a. Clearing: Strip site area of any topsoil containing vegetation, trees and roots, organic matter, metal, broken concrete, trash, and other debris, and dispose of it as specified.
- b. Preparation of Areas Receiving Fill: Surfaces to receive fill shall be scarified to a depth of at least twelve (12") inches and, until the surface is free from ruts, hummocks or other uneven features which would tend to prevent uniform compaction by the equipment to be used. After the area to receive fill has been cleared and scarified, it shall be moistened and compacted to a depth of at least twelve (12") inches in accordance with specifications for compacting fill material.

3.03 Excavation

- a. Checking Layout: Contractor shall, before commencing the excavation work, check all lines, stakes and levels for dimensions, angles, elevations and grades with its surveyor.
- b. Dimensions: Excavate to proper dimensions as shown within a tolerance of 0.1 foot, cut square and smooth through all materials encountered with level firm bottoms. Prepared excavations shall be inspected and approved by Soils Testing Agency. Excavations shall be free of loose or disturbed materials.
- c. Excess Water Control: Keep all excavations free from standing water by pumping, draining or providing proper protection against water intrusion. If soil becomes soft, soggy or saturated perform additional excavation to firm soil not affected by water at no additional expense.
- d. Form Removal: Make all excavations of sufficient size to permit installation and removal of forms and all other required work.
- e. Alternate Forming: Sides of footings may be formed by neat excavations where banks will stand without caving and the neat trenches are cut one inch wider on each side than the footing dimension indicated on the Drawings. If banks cave, form footings and widen trenches to permit forming, bracing and inspection, minimum 1'0" each side. Form all grade beams.
- f. Satisfactory Excavated Materials: Transport to, and place in, fill or embankment areas within the limits of work.
- g. Unsatisfactory Excavated Materials:
 - (1) Excavate to a distance below grade as directed by the Soils Engineer, and replace with satisfactory materials.
 - (2) Include excavation of unsatisfactory materials, and replacement by satisfactory materials, as parts of the work of this section.
- h. Surplus Materials: Dispose of unsatisfactory excavated material, and surplus satisfactory excavated material, away from the site at disposal areas arranged and paid for by the Contractor.
- i. Excavation of Rock:
 - (1) Where rocks, boulders, granite, or similar material is encountered, and where such material cannot be removed or excavated by conventional earth moving or ripping equipment, take required steps to proceed with the general grading operations of the Work, and remove or excavate such material by means which will neither cause additional cost to NOR, nor endanger buildings or structures whether on or off the site.
 - (2) Use of explosives is not permitted by NOR.
- j. Excavate and backfill in a manner and sequence that will provide proper drainage at all times.
- k. Borrow: Obtain material required for fill or embankment in excess of that produced within the grading limits of the Work from borrow areas selected and paid for by the Contractor and approved by the Soils Engineer.
- l. Ditches and Gutters:
 - (1) Cut accurately to the cross sections, grades and elevations shown.

- (2) Maintain excavations free from detrimental quantities of leaves, sticks, trash and other debris until completion of the Work.
- (3) Dispose of excavated materials as shown on the Drawings or directed by the Soils Engineer; except do not, in any case, deposit materials less than 3'0" from the edge of a ditch.

m. Unauthorized Excavation:

- (1) Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific instruction from NOR or the Soils Engineer.
- (2) Under footings, foundations or retaining walls:
 - A. Fill unauthorized excavations by extending the indicated bottom elevation of the footing or base to the excavation bottom, without altering the required top elevation.
 - B. When acceptable to the Soils Engineer, lean concrete fill may be used to bring the bottom elevation to proper position.
- (3) Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations, unless otherwise directed by the Soils Engineer.

n. Stability of Excavations:

- (1) Slope sides of excavations to 1:1 or flatter, unless otherwise directed by the Soils Engineer.
- (2) Shore and brace where sloping is not possible because of space restrictions or stability of the materials being excavated.
- (3) Maintain sides and slopes of excavations in a safe condition until completion of backfilling.

o. Shoring and Bracing:

- (1) Provide materials for shoring and bracing as may be necessary for safety of personnel, protection of work and compliance with requirements of governmental agencies having jurisdiction.
- (2) Maintain shoring and bracing in excavations regardless of the time period excavations will be open.
- (3) Carry shoring and bracing down as excavation progresses.

p. Excavating for Pavements: Cut surface under pavements to comply with cross sections, elevations and grades.

q. Cold Weather Protection: Protect excavation bottoms against freezing when atmospheric temperature is less than 35 degrees F.

3.04 Backfilling

a. General:

- (1) For each classification listed below, place acceptable soil material in layers to required subgrade elevations.

- (2) In excavations use satisfactory excavated or borrow material.
 - (3) Under asphalt pavements use subbase material, if required.
 - (4) Under building slabs use granular fill, if so called for on the Drawings, complying with aggregate acceptable under Section 03 30 00 of these Specifications.
- b. Backfill excavations as promptly as progress of the Work permits, but not until completion of the following:
- (1) Acceptance of construction below finish grade including, where applicable, damp-proofing and waterproofing.
 - (2) Inspecting, testing, approving and recording locations of underground utilities.
 - (3) Removing concrete formwork.
 - (4) Removing shoring and bracing, and backfilling of voids with satisfactory materials.
 - (5) Removing trash and debris.
 - (6) Placement of horizontal bracing on horizontally supported walls.
- c. Material: Use the material from the excavations for backfilling, subject to approval by the Testing Agency. The earth shall be free from debris, large clods or stones.
- d. Lifts: Place backfill in six (6") inch loose layers, bring to optimum moisture content and compact to required maximum density, sloping down and away from any building.
- (1) Field density tests shall be made by the Soils Engineer. The compaction of each layer of fill shall be subject to testing. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density tests shall be taken in the compacted material below the disturbed surface. When tests indicate the density of any layer of fill or portion thereof is below the required density, the particular layer or portion shall be re-worked until the required density has been obtained.
 - (2) The fill operation shall be continued in six (6") inch compacted layers, as specified above, until the fill has been brought to within 0.1 foot, plus or minus of the finished slopes and grades as shown on the accepted plans. The finished surface of fill areas shall be graded or bladed to a smooth and uniform surface and no loose material shall be left on the surface of areas receiving structures, slabs, street improvements or parking lot.
 - (3) No fill material shall be placed, spread or compacted while it is frozen or thawing or during unfavorable weather conditions. When work is interrupted by weather conditions, fill operations shall not be resumed until the moisture content and density of previously placed fill are satisfactory.
 - (4) Backfill placed in narrow, restricted areas such as utility trenches, may be placed in 12 to 18 inch lifts provided the required compaction is obtained.
- e. Compacting:
- (1) Control soil compaction during construction to provide the minimum percentage of density specified for each area as determined according to ASTM D1557-78 (Method A).

- (2) Provide not less than the following maximum density of soil material compacted at optimum moisture content for the actual density of each layer of soil material in place, and as approved by the Soils Engineer.
 - (3) Structures: Compact the top eight (8") inches of subgrade and each layer of fill material or backfill material at 90% of maximum density.
 - (4) Lawn and unpaved areas:
 - A. Compact the top eight (8") inches of subgrade and each layer of fill material or backfill material at 90% of maximum density.
 - B. Compact the upper twelve (12") inches of filled areas, or natural soils exposed by excavation, at 85% of maximum density.
 - (5) Walks: Compact the top eight (8") inches of subgrade and each layer of fill material or backfill material at 90% of maximum density.
 - (6) Pavements: Compact the top eight (8") inches of subgrade and each layer of fill material or backfill material at 95% of maximum density.
- f. Moisture:
- (1) Rigidly control the amount of water used to ensure optimum moisture conditions for the type of fill material used. Excessive amounts of water causing saturation of earth will not be permitted. Compaction by flooding or jetting is prohibited.
 - (2) Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density.
 - (3) Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the Soils Engineer.

3.05 Grading

- a. Slopes: Grade to finish elevations indicated on Drawings, build high at buildings, sloping down and away from building lines at all points, with uniform slopes between all points. Where a change of slope is indicated on the Drawings, construct a rolled transition section having a minimum radius of approximately 8'0", unless adjacent construction will not permit such a transition, or if such a transition defeats positive control of drainage.
- b. Subgrades: Blade to required grade and roll or tamp subgrades for exterior slabs and paving.
- c. Finish Grades: Finish grades of lawn and planted areas shall be as follows: One and one-half (1½") inch below walk grades and four (4") inches below tops of planter walls inside planting areas.

3.06 Trenching

- a. General: Perform all trenching required for installation of items where the trenching is not specifically described elsewhere. Make all trenches open vertical construction with sufficient width to provide free working space on both sides of the trench and around the installed items.

- b. Depths: Trench as required to provide the elevations shown on the Drawings. Where elevations are not indicated on Drawings, trench to sufficient depth to give a minimum of eighteen (18") inches cover.
- c. Bracing: Properly support all trenches in strict accordance with all pertinent rules and regulations. When work is completed remove all required bracing before backfilling.

3.07 Maintenance

- a. Protection of Newly Graded Areas:
 - (1) Protect newly graded areas from traffic and erosion, and keep free from trash and weeds.
 - (2) Repair and reestablish grades in settled, eroded, and rutted areas to the specified tolerances.
- b. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape, and compact to the required density prior to further construction.

3.08 Cleanup

- a. Disposal: Haul rubbish, debris and rocks away from site promptly and dispose of legally. Burning rubbish on site is prohibited.

END OF SECTION

SECTION 31 10 00 SITE CLEARING

PART I – GENERAL

1.01 Description

- a. Contractor shall furnish all labor, services, materials, tools, equipment, appliances, trucks and all other appurtenances necessary for the safe demolition and/or removal of site features and for the maintenance of the existing conditions, as shown on Drawings.

1.02 Scope of Work

- a. General: Refer to Drawings for a graphic representation of all areas to be demolished, and/or salvaged.
- b. The demolition consists of saw cutting and removing existing paving and base, gates, posts and footings, planting, concrete and asphalt debris, and all items as designated on the Plans.
- c. The demolition work to be performed under this Contract includes the removal and disposal of all designated items and debris.

1.03 Related Sections

- a. Section 31 00 00 – Earthwork and Grading

1.04 Regulatory Requirements

- a. Conform to City, State and Federal codes for disposal and debris.

PART II – PRODUCTS (NOT USED)

PART III – EXECUTION

3.01 Protection

- a. Protect active sewer, water, gas, electric and other utilities; and drainage system indicated or, when not indicated, found or otherwise made known to the Contractor before or during demolition work. If utility is damaged, immediately notify the City Representative and the utility owner for corrective action.
- b. Protect all trees, plant materials and lawn areas that are to remain. Water trees, plant materials and lawn areas that are to remain for the duration of the contract. The contractor shall replace at his own expense and plant material or existing lawn that is damaged as a result of construction or a lack or irrigation.

- c. Provide temporary fencing, signage and flag persons as necessary for pedestrian traffic control prior to beginning demolition.

3.02 Demolition Requirements

- a. Cease operations immediately if adjacent structures appear to be in danger. Notify Owner and do not resume operation until directed.
- b. Conduct operations with minimum interference to public or private access. Maintain protected egress and access at all times.
- c. Ensure safety of persons and adjacent property against damage by falling debris or other causes in connection with this work.
- d. Demolish any concrete in small sections.
- e. Protect from damage existing parts of work to remain.
- f. Promptly remove from the site all demolished material in a neat, orderly manner.

3.03 Clearing and Grubbing

- a. Perform clearing and grubbing as necessary to remove vegetation, shrubs, small trees and objectionable material from the site. Clear the site within the limits indicated and remove cleared materials and debris from the site.
- b. For small trees and large shrubs remove all root mass and grind stumps to 24" (minimum) below finish grade. Backfill voids with approved backfill and topsoil per the Specifications.
- c. Coordinate any salvaging of materials, construction backfill or planting soils with work in Section 31 00 00 – Earthwork and Grading

3.04 Concrete Removal

- a. Remove all concrete debris
- b. Remove excess topsoil or fill as required to complete finish grades as shown on plans.

3.05 Salvage

- a. Items to be salvaged are indicated on the Plans. Repair or replace to the satisfaction of the Owner, any item damaged due to Contractor's negligence.

3.06 Disposal of Debris

- a. Dispose of all removed material in a legal manner. Burning or burying of material on site is strictly prohibited.

3.07 Restoration and Clean Up

- a. Reuse all site soil to establish finish grades.
- b. Repair and clean adjacent surfaces damaged or soiled by demolition work.
- c. Restore utility service to normal operation
- d. Remove equipment, temporary protection and barriers and debris.

END OF SECTION



Division 32 00 00 Exterior Improvements

SECTION 32 01 16

FLEXIBLE PAVING REHABILITATION

PART I – GENERAL

1.01 Scope

- a. Contractor shall furnish all materials, equipment, labor, and services to perform the work described in accordance with these specifications.

1.02 Drawings

- a. The drawings entitled None are part of these specifications.

1.03 General

- a. The Contractor shall at all times be mindful of public safety including, but not limited to North of the River Recreation & Park District employees not associated with the construction. Any questions concerning the work should be directed to the on-site inspector.
- b. During unfavorable weather, wet ground, or other unsuitable construction conditions, the Contractor shall confine his operations to work which will not be affected adversely by such conditions. No portion of the Work shall be constructed under conditions which would adversely affect the quality or efficiency thereof, unless special means or precautions are taken by Contractor to perform the work in a proper and satisfactory manner.
- c. Contractor shall keep the premises free at all times from accumulations of waste materials and rubbish. Contractor shall provide adequate trash receptacles about the site, and shall promptly empty the containers when filled.
- d. From receipt of the Notice to Proceed until final acceptance by the Owner, the Contractor shall be responsible for protecting his work and jobsite. Protection shall cover damage caused by rain, automatic sprinkler systems, vehicle or pedestrian traffic, vandalism, and construction mishaps such as spills or waterline rupture.
- e. Contractor shall promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids and cleaning solutions from surfaces to prevent marring or other damage.
- f. Volatile wastes shall be properly stored in covered metal containers and removed daily.
- g. Wastes shall not be buried or burned on the site or disposed of into storm drains, sanitary sewers, streams, or waterways. All wastes shall be removed from the site and disposed of in a manner complying with local ordinances and antipollution laws.
- h. The Contractor is required to provide portable toilets per state laws.
- i. Adequate cleanup will be a condition for recommendation of payment.
- j. Owner and Engineer are, for the purposes of this section, the same entity.

1.04 Reference Standards

- a. Reference to the standards of any technical society, organization, or association, or to codes of local or state authorities, shall mean the latest standard, code, specification, or tentative standard

adopted and published at the date of receipt of bids, unless specifically stated otherwise.

1.05 Protection of Existing Installations

- a. The Contractor shall make every effort to protect existing installations from damage resulting from the operation of equipment or placement of material. Suitable precautions shall be taken by the Contractor to protect exposed surfaces from discoloration resulting from the application of asphaltic materials. It will be the responsibility of the Contractor, at no extra cost to the Owner, to provide suitable means of dust control resulting from his performance of the work. Any damage caused by the Contractor's operations will be repaired by the Contractor at the Contractor's expense.

1.06 Notifications

- a. In order to allow the Owner sufficient time to notify the various occupants of upcoming work, the Contractor shall notify the Owner in writing at least ten (10) working days before commencing work on any portion of the Work.

1.07 Control of Materials

- a. Only materials conforming to the specifications shall be incorporated in the work. The materials shall be manufactured, handled, and used in a workmanlike manner.
- b. It is the intent of these specifications that materials to be incorporated in the work shall meet the requirements of these specifications after incorporation in the areas of work shown on the plans.
- c. The Owner's Engineer shall have the right to obtain samples of all materials to be used in the work and to test such samples for the purpose of determining specifications compliance. The Owner reserves the right to obtain said samples at the point of delivery and/or at the point of manufacture. The Owner shall also have the right to inspect sources of materials to be used in the work to verify workmanlike procedures used by the materials supplier.
- d. Initial testing done to determine specification compliance will be performed and paid for by the Owner. If any particular portion of the work does not pass this testing, it shall be subject to a retest after the Contractor feels he has remedied the deficiency. All retesting will be paid for by the Contractor.
- e. In the event that the Owner does not provide on-site inspection during construction, the Contractor is hereby notified that two or more core tests will be taken to check for compliance to these specifications. If deficiencies in material quality, thickness, or densities are determined, the entire area represented by that test shall be removed and replaced at the Contractor's expense. In addition, the Contractor will be required to pay for additional testing to determine compliance of all other areas tested. All non-complying areas shall be removed and replaced at the Contractor's expense. Any conditions resulting in cost overruns on this project must be photo documented if an on-site inspector is not present to verify quantities.

1.08 Work Schedule and Public Safety

- a. Within ten (10) working days prior to initiating the work under this contract or within 48 hours prior to commencement of construction, whichever is first, the Contractor shall submit his proposed schedule of work to the Engineer for his review. The plan shall clearly indicate how the work is to be laid out and the order in which individual areas will be completed. The goal of this requirement is to ensure that public traffic is safely maintained and that there is adequate public access to the site.

- b. Contractor is responsible for barricading or taping off the work to be completed early enough in advance to assure no vehicles or other obstacles are left in the way of construction.

1.09 Traffic Control

- a. Contractor is responsible for providing all traffic control necessary to maintain public safety and access to the project site. Preapproval by the Engineer is required before imposing any traffic closures. Traffic control may involve flagmen, guards, barricades, signs, lights, flares, radios, and other facilities. The Contractor shall include traffic closures in the proposed work schedule submittal as described in Section TS-8, "Work Schedule, and Public Safety."
- b. Full compensation for providing traffic control, including labor, materials, equipment, tools, and incidentals, shall be considered included in the various items of work and no separate payment will be made therefore.

PART II – PRODUCTS AND EXECUTION

2.01 Asphalt Concrete

a. General

- (1) The following provisions for Asphalt Concrete material shall apply to work completed within these specifications.

b. Materials

- (1) Asphalt concrete shall comply with the provisions of Section 39 of the California State Standard Specifications and as modified herewith. The requirements provided within these special provisions shall supersede State Specifications where conflicts or other disparities exist.
- (2) Asphalt concrete shall be hot plant mixed and shall be furnished from the plant at a temperature not to exceed 325 degrees F.
- (3) Asphalt concrete for paving and repair work shall be Type A or B, 1/2 inch HMA Gradation, conforming to the requirements of Section 39-1.02E of the State Standard Specifications. Asphalt binder shall be a PG 64-10 viscosity graded, steam refined paving asphalt conforming to Section 92 of the State Standard Specifications.
- (4) The actual asphalt cement content may vary up to 0.3% plus/minus from the target optimum bitumen content (OBC) unless the job-mix-design and final product indicate the required provisions are not met.
- (5) NOTE: At the OBC, the compacted mixture shall have the following properties:

Hveem Stability	35 min. Type B
	37 min. Type A

- (6) The suggested job-mix-design air voids below are provided to help obtain compaction requirements in the field and are not a specification requirement.

Air Voids	3% to 5%
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- (7) Only materials conforming to the specifications shall be incorporated in the work. The materials shall be manufactured, handled, and used to industry standards.

c. Submittals

- (1) The Contractor shall furnish Owner's Engineer for review and approval, at least ten (10) working days prior to start of work or within 48 hours prior to commencement of construction, whichever is first, a list of his sources of materials together with a Certificate of Compliance, indicating that materials to be incorporated in the work fulfill the requirements of these specifications and the job-mix-design for the asphalt concrete. The Certificate of Compliance shall be signed by the material supplier or his representative. It is the intent of these specifications that materials to be incorporated in the work meet the requirements of these specifications after incorporation in the paved areas shown on the plans.
- (2) At least ten (10) working days prior to start of work, the Contractor shall also furnish a job-mix-design for the asphalt concrete. The job-mix-design shall indicate all of the following:
 1. Percentage passing each sieve size
 2. Percent asphalt recommended
 3. Percent voids*
 4. Stability*
 5. Maximum theoretical unit weight*

The * items shall be provided at each asphalt content used to arrive at the recommended optimum bitumen content.

- (3) The job-mix-design shall be in effect until a change is approved in writing by the Engineer.
- (4) The Contractor shall be responsible for all costs associated with the required job-mix-design. Recent mix designs from previous jobs using the same mixture may be submitted for approval. Mix design in excess of 6 months in age must be submitted with recent gradations for verification.

d. Testing

- (1) The Owner's Engineer shall have the right to obtain samples of all materials to be used in the work and to test such samples for the purpose of determining specifications compliance. The Owner reserves the right to obtain said samples at the point of delivery and/or at the point of manufacture. The Owner shall also have the right to inspect sources of materials to be used in the work to determine workmanlike procedures used by the materials supplier. Any material testing completed or not completed by the owner does not relieve the Contractor of complying with the provisions herein.

e. Payment

- (1) Full compensation for compliance with the mix design requirements, as well as furnishing all labor, materials, equipment, tools and incidentals necessary for constructing asphalt concrete, complete in-place, shall be considered included in the contract unit price for the items of work in which asphalt concrete will be used.

2.02 Asphalt Concrete Overlay

a. Materials

- (1) The asphalt concrete used for overlay shall conform to Section 2.01 of these specifications.

b. Application

- (1) Prior to placing the overlay, all areas capable of ponding water greater than 3/8 inch in depth shall be leveled as necessary to eliminate the possibility of standing water.
- (2) Any time new asphalt concrete is to be placed in contact with existing asphalt concrete and it is outside the fabric interlayer limits, the surface shall be cleaned and a tack coat of asphaltic emulsion applied to ensure proper bond. Tack coat emulsion shall be SS-1h. Tack coat, in areas not receiving paving fabric, may be diluted for workability, but shall be applied at a rate equivalent to 0.05 to 0.15 gallons per square yard.
- (3) The asphalt concrete shall be delivered to the site in a thoroughly blended condition and shall be spread by a self-propelled asphalt paving machine in such a manner as to avoid segregation of aggregate during the placing operations. Areas inaccessible to spreading and compaction equipment may be paved by such methods as may be approved by Owner's Engineer. Large aggregate that migrates to the surface during handwork shall be returned to the paver box rather than scattered over the surface of the mat.
- (4) All mixtures shall be spread at a temperature of not less than 260 degrees F., and not greater than 300 degrees F. Initial rolling shall be performed immediately after placement. No asphalt concrete is to be placed when the atmospheric temperature is below 50 degrees F.
- (5) Asphalt concrete surfacing shall be placed in lifts no less than 1.5 inches or greater than 3 inches in thickness (compacted). Total thickness of surfacing shall be as indicated on the plans.
- (6) Asphalt pavers shall be self-propelled mechanical spreading and finishing equipment, provided with a screed or strike-off assembly capable of distributing the material to not less than ten (10) feet in width. Screed action shall include any cutting, crowding, or other practical action which is effective on the mixture without tearing, shoving, or gouging, and which produces a surface texture of uniform appearance. The screed shall be adjustable to the required section and thickness. The paver shall be provided with a full width roller or tamper or other suitable compacting devices.
- (7) The asphalt paver shall operate independently of the vehicle being unloaded or shall be capable of propelling the vehicles being unloaded in satisfactory manner and, if necessary, the load of the haul vehicle shall be limited to that which will insure satisfactory spreading. While being unloaded, the haul vehicle shall be in contact with the machine at all times, and the brakes on the haul vehicles shall not be depended upon to maintain contact between the vehicle and the machine.
- (8) If a bucket or tank of diesel fuel is carried on the paver for the purpose of cleaning rakes and shovels, a container of Grease Sweep or equivalent absorbent material shall also be carried on the paver. All diesel spills shall be promptly cleaned up.
- (9) The Contractor shall furnish equipment capable of producing the required compaction. Vibratory rollers shall be double steel drum, having adjustable frequency and amplitude settings directly available to the operator during operation. The roller shall be equipped with self-reversing eccentrics. The vibratory mode shall automatically shut off when machine direction is changed.
- (10) Rollers shall not be parked or left idling on the overlay surface until it has completely cooled.

- (11) Asphalt concrete shall be compacted to a minimum 93 percent of Maximum Theoretical Density (density with zero air voids) as determined by American Society of Testing Materials (ASTM) D-2041.
- (12) The surface, when completed, shall be smooth, dense, well-bonded, and of uniform texture and appearance. The compacted surface course of asphalt concrete shall be free from ruts, humps, depressions, or irregularities. When a straight-edge 12 feet long is laid on the finished surface and parallel with the center line of the road or driveway, the surface shall not vary more than 0.02 foot from the lower edge of the straight-edge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02 foot are present when tested with a straight-edge 12 feet long laid in a direction transverse to the center line and extending from edge to edge of a 10 foot pass.
- (13) Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete shall be eliminated by rolling or other means. The use of any equipment that leaves ridges, indentations or other objectionable marks in the asphalt concrete shall be discontinued.

c. Payment

- (1) Payment for asphalt concrete overlay at the contract unit price shall include the cost of all materials and labor, including pre-leveling if there is no separate line item for AC leveling, necessary for this item of work.
- (2) Finished asphalt concrete pavements which do not conform to the specified compaction requirements will be paid for using the following pay factors:

<u>In-Place Compaction</u>	<u>Pay Factor</u>
93% or greater	100% Pay factor.
90 - 92.9%	90% Pay factor.
89.9% or less	Remove and replace as directed by Engineer.

2.03 Full-Depth AC Repair

a. General

- (1) Areas designated by the Engineer shall be dug out to a depth as shown on the plans, removed and replaced with the same thickness of AC, unless otherwise directed on the contract plans. The AC shall be placed in two (2) equal lifts. The final lift must be 2 inches thick or greater. The common practice of capping digouts with a thin lift of asphalt is not acceptable.

b. Materials

- (1) The asphalt concrete used for this work shall conform to all requirements of Section 2.01, "Asphalt Concrete," of these technical specifications.
- (2) Tack coat emulsion shall be SS-1h.

c. Construction

- (1) The Contractor shall make all arrangements for disposal of excavated materials.
- (2) All edges shall be saw-cut or milled. If a milling machine is used, all sloping edges shall be chipped to a vertical face. Exposed edges shall be protected against breakage with timbers or AC mix whenever a roller enters or leaves the repair spot.
- (3) The underlying material to remain in place shall be recompacted to 95 percent minimum relative compaction as determined by AASHTO Tests T180 and T238 to a depth of 6 inches below the bottom of the repair. After compaction and prior to the placing of asphalt concrete, the vertical edges of the existing pavement shall receive a tack coat.
- (4) Whenever the surface course of AC is placed more than four hours after the base course or, in the opinion of the Engineer, contamination by dirt or dust has caused the base course to lose its tackiness, a tack coat shall be applied to the entire area of the repair before placing the surface course. Tack coat shall be applied at a rate equivalent to 0.05 to 0.15 gallons per square yard.
- (5) The finished repair shall conform to the surrounding grade and contour and shall not trap water or present a visible hump.
- (6) Asphalt concrete shall be compacted to a minimum 93 percent of Maximum Theoretical Density (density with zero air voids) as determined by American Society of Testing Materials (ASTM) D-2041.

d. Unsuitable Material

- (1) In the event that the underlying material is unsuitable, it shall be excavated below the depth required above and disposed of in accordance with these special provisions. The limits of removal shall be designated by the Engineer. The resulting space shall be filled with a single lift of asphalt concrete.
- (2) Unsuitable material is defined as material the Engineer determines to be:
 - i. of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or
 - ii. too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or
 - iii. otherwise unsuitable for the planned use.

e. Payment

- (1) Payment for the removal of unsuitable material and replacement with asphalt concrete shall be paid for at the bid item price, prorated for the thickness of additional AC. As in all cost overruns on this project, photo documentation is required in the event an on-site inspector is not present to verify quantities.
- (2) Payment for the excavation, disposal, and replacement of asphalt concrete pavement removed shall be made on the basis of surface area measured in square feet. If areas larger than as designated on the plans are excavated for the convenience of using a milling machine, payment will be made on the basis of plan quantities, or as determined by the Engineer. The unit price for this work shall include all costs associated with its performance, including any and all incidental work required to perform the work complete in place.

- (3) Finished asphalt concrete pavements which do not conform to the specified compaction requirements will be paid for using the following factors:

<u>In-Place Compaction</u>	<u>Pay Factors</u>
93% or greater	100% Pay factor.
90 - 92.9%	90% Pay factor.
89.9% or less	Remove and replace as directed by Engineer.

2.04 Full-Depth AC Pavement Reconstruction

a. General

- (1) Areas designated by the Engineer shall be to a depth as shown on the plans, removed and replaced with the same thickness of AC, unless otherwise directed on the contract plans. The AC shall be placed in two (2) equal lifts or as designated on the plans. The final lift must be 2 inches thick or greater.

b. Materials

- (1) The asphalt concrete used for this work shall conform to all requirements of Section 2.01, "Asphalt Concrete," of these technical specifications.
- (2) Tack coat emulsion shall be SS-1h or as designated in Section 2.06 "Tack Coat," of these technical specifications.

c. Construction

- (1) The Contractor shall make all arrangements for legal and lawful disposal of excavated materials as directed by the County and/or City Ordinance.
- (2) All edges shall be saw-cut or milled. If a milling machine is used, all sloping edges shall be chipped to a vertical face. Exposed edges shall be protected against breakage with timbers or AC mix whenever a roller enters or leaves the repair spot.
- (3) The underlying material to remain in place shall be recompacted to 95 percent minimum relative compaction as determined by AASHTO Tests T180 and T238 to a depth of 6 inches below the bottom of the repair. After compaction and prior to the placing of asphalt concrete, the vertical edges of the existing pavement shall receive a tack coat.
- (4) Whenever the surface course of AC is placed more than four hours after the base course or, in the opinion of the Engineer, contamination by dirt or dust has caused the base course to lose its tackiness, a tack coat shall be applied to the entire area of the repair before placing the surface course. Tack coat shall be applied at a rate equivalent to 0.05 to 0.15 gallons per square yard.
- (5) The asphalt concrete shall be delivered to the site in a thoroughly blended condition and shall be spread by a self-propelled asphalt paving machine in such a manner as to avoid segregation of aggregate during the placing operations. Areas inaccessible to spreading and compaction equipment may be paved by such methods as may be approved by Owner's Engineer.

- (6) Large aggregate that migrates to the surface during handwork shall be returned to the paver box rather than scattered over the surface of the mat. All mixtures shall be spread at a temperature of not less than 260 degrees F., and not greater than 300 degrees F. Initial rolling shall be performed immediately after placement. No asphalt concrete is to be placed when the atmospheric temperature is below 50 degrees F.
- (7) Asphalt concrete surfacing shall be placed in lifts no less than 1.5 inches or greater than 3 inches in thickness (compacted). Total thickness of surfacing shall be as indicated on the plans.
- (8) Asphalt pavers shall be self-propelled mechanical spreading and finishing equipment, provided with a screed or strike-off assembly capable of distributing the material to not less than ten (10) feet in width. Screed action shall include any cutting, crowding, or other practical action which is effective on the mixture without tearing, shoving, or gouging, and which produces a surface texture of uniform appearance. The screed shall be adjustable to the required section and thickness. The paver shall be provided with a full width roller or tamper or other suitable compacting devices.
- (9) The asphalt paver shall operate independently of the vehicle being unloaded or shall be capable of propelling the vehicles being unloaded in satisfactory manner and, if necessary, the load of the haul vehicle shall be limited to that which will insure satisfactory spreading. While being unloaded, the haul vehicle shall be in contact with the machine at all times, and the brakes on the haul vehicles shall not be depended upon to maintain contact between the vehicle and the machine.
- (10) If a bucket or tank of diesel fuel is carried on the paver for the purpose of cleaning rakes and shovels, a container of Grease Sweep or equivalent absorbent material shall also be carried on the paver. All diesel spills shall be promptly cleaned up.
- (11) The Contractor shall furnish equipment capable of producing the required compaction. Vibratory rollers shall be double steel drum, having adjustable frequency and amplitude settings directly available to the operator during operation. The roller shall be equipped with self-reversing eccentrics. The vibratory mode shall automatically shut off when machine direction is changed.
- (12) Rollers shall not be parked or left idling on the asphalt surface until it has completely cooled.
- (13) Asphalt concrete shall be compacted to a minimum 93 percent of Maximum Theoretical Density (density with zero air voids) as determined by American Society of Testing Materials (ASTM) D-2041.
- (14) The surface, when completed, shall be smooth, dense, well-bonded, and of uniform texture and appearance. The compacted surface course of asphalt concrete shall be free from ruts, humps, depressions, or irregularities. When a straight-edge 12 feet long is laid on the finished surface and parallel with the center line of the road or driveway, the surface shall not vary more than 0.02 foot from the lower edge of the straight-edge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02 foot are present when tested with a straight-edge 12 feet long laid in a direction transverse to the center line and extending from edge to edge of a 10 foot pass.
- (15) Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete shall be eliminated by rolling or other means. The use of any equipment that leaves ridges, indentations or other objectionable marks in the asphalt concrete shall be discontinued.

d. Unsuitable Material

- (1) In the event that the underlying material is unsuitable, it shall be excavated below the depth required above and disposed of in accordance with these special provisions. The limits of removal shall be designated by the Engineer. The resulting space shall be filled with a single lift of asphalt concrete.
- (2) Unsuitable material is defined as material the Engineer determines to be:
 - i. of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or
 - ii. too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or
 - iii. otherwise unsuitable for the planned use.

e. Payment

- (1) Payment for the removal of unsuitable material and replacement with asphalt concrete shall be paid for at the bid item price, prorated for the thickness of additional AC. As in all cost overruns on this project, photo documentation is required in the event an on-site inspector is not present to verify quantities.
- (2) Payment for the excavation, disposal, and replacement of asphalt concrete pavement removed shall be made on the basis of surface area measured in square feet. If areas larger than as designated on the plans are excavated for the convenience of using a milling machine, payment will be made on the basis of plan quantities, or as determined by the Engineer. The unit price for this work shall include all costs associated with its performance, including any and all incidental work required to perform the work complete in place.
- (3) Finished asphalt concrete pavements which do not conform to the specified compaction requirements will be paid for using the following factors:

<u>In-Place Compaction</u>	<u>Pay Factors</u>
93% or greater	100% Pay factor.
90 - 92.9%	90% Pay factor.
89.9% or less	Remove and replace as directed by Engineer.

- (4) No additional compensations will be made for disposal and removal fees for the various repairs in connection with pavement base failure and concrete repairs; therefore all costs for such work should be covered in the contract unit prices. This should include any costs for encountering and disposing of a fabric interlayer (Petromat).

2.05 Emulsified Asphalt Crack Seal

a. General

- (1) This work applies to all cracks and joints in and adjacent to the asphalt concrete

pavement as indicated on the plans. For cracks and joints 1/4 inch and wider, the work consists of cleaning, sterilizing where weeds are present, filling with emulsified asphalt crack seal and covering with sand. For cracks and joints less than 1/4 inch wide, the work consists only of weed cleaning and sterilization.

- (2) No routing of pavement is required for this project.

b. Materials

- (1) Crack seal shall be an emulsified material that can be readily handled at ambient temperatures, can be stored for periods of up to six months, and is made with base materials that will remain ductile with aging and provide resiliency under extreme climatic conditions.
- (2) The sealant shall contain no volatile organic compounds which contribute to air pollution and shall conform to the requirements in the following table:

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>REQUIREMENTS</u>
Viscosity @ 77 F (25 C), SFS	ASTM D-244-76	25-150
Pumping stability	GB method (1) Pass	
5-day Settlement test, percent	ASTM D-244-76	5.0
Cement mixing test, percent	ASTM D-244-76	2.0 maximum
Sieve test, percent	ASTM D-244-76	0.1
Particle charge test	maximum (MOD) (2)	
	ASTM D-244-76 (MOD)	Positive
Residue, percent	ASTM D-244-76 (MOD) (3)	minimum
Test of Residue	ASTM D-244-76 (MOD)	
Viscosity at 140 F (60 C),	ASTM D-244-76	1000-4000cs.

NOTES:

- 1) Pumping stability is determined by charging 450 ml. of emulsion into a one-liter beaker and circulating emulsion through a gear pump (Roper 29 B22621) having 1/4 inch inlet and outlet. The emulsion passes if there is no significant oil separation after circulating ten minutes.
 - 2) Test procedure identical with ASTM D-244 except that distilled water shall be used in place of two percent sodium oleate solution.
 - 3) ASTM D-244 Evaporation Test for percent of residue is modified by heating a 50 gram sample to 300 F (149 C) until foaming ceases, then cooling immediately and calculating results.
- (3) The vendor shall furnish certification that the crack sealant material complies with the above requirements.
- (4) Sand cover shall be free from clay or organic material and shall be of such size that from 90 percent to 100 percent will pass a No. 4 sieve and not more than 10 percent will pass a No. 200 sieve.

c. Application

- (1) Immediately before applying the sealant, cracks and joints shall be cleaned by mechanical or hand methods followed by blast cleaning with high-pressure air jets to remove all residue and foreign material to a minimum depth of three-quarter (3/4) inch. Water jets shall not be allowed. Crack surfaces shall be surface dry at the time the sealant is applied.
- (2) Crack sealant material may be spread with any type nozzle or device that will place the material within the specified temperature range and to the dimensions shown on the plans and is approved for use by the Engineer.
- (3) Crack sealant shall be placed at a temperature such that the sealant temperature plus air temperature falls within a range of 150 to 200 degrees Fahrenheit.
- (4) When cured, crack sealant shall be at least flush with the pavement surface or extend no more than one-eighth (1/8) inch above the pavement surface. NOTE: The common practice of "band-aiding" a thick ribbon of crack sealant to the pavement surface is not acceptable.
- (5) Cracks shall be covered with clean sand immediately following placement of the sealant material to prevent tracking of sealant by vehicles or pedestrians.
- (6) A light brooming shall be performed to remove loose sand before to the end of each day's work or as a first order of work on the morning following application of the sand cover. The exact time of brooming will be determined by the Engineer.

d. Payment

- (1) Full compensation for crack sealing shall be the lump sum contract price for "Emulsified Asphalt Crack Seal."

2.06 Tack Coat

- a. An asphalt emulsion tack coat shall be applied to all vertical surfaces of existing pavement, curbs, gutters, and construction joints, against which additional material is to be placed.
- b. Additionally, when placing an overlay without fabric, the top lift of a full-depth AC repair, or AC leveling, paving shall be preceded by a tack coat over the entire surface unless the existing surface has been placed within the last four hours and, in the opinion of the Engineer, is clean enough to bond without the need for a tack coat.
- c. The tack coat shall be SS-1h, meeting the requirements of Section 94 of the State Standard Specifications.
- d. Full compensation for furnishing and applying asphalt emulsion tack coat shall be included in the contract unit price for items involving asphalt concrete.

2.07 Aggregate Base

- a. The aggregate base shall meet the requirements of California Specification Section 26 for Class 2.
- b. Where the required thickness is 0.50 feet or less, the base material may be spread in one layer. The relative compaction of each layer of compacted base material shall not be less than 95 percent.

- c. The surface of the finished aggregate base at any point shall not vary more than 0.05 foot above or below the grade established by the Engineer.
- d. Full compensation for furnishing, spreading and compacting aggregate base shall be included in the contract unit price. Measurement for unit quantity will be material compacted in-place.

2.08 Cold Planing Existing Asphalt Concrete Surfacing, Wedge Cutting

- a. Existing asphalt concrete surfacing in areas to receive asphalt concrete overlays shall be wedge cut along edges, curbs and conforms as detailed in the plans and as indicated by the Engineer.
- b. The cold planing or milling machine shall be equipped with automatic controls and a sensing device. The sensing equipment shall respond to the grade of the adjacent pavement and produce a specified depth of cut and designated cross slope to within 0.02 foot tolerance. The outside lines of the removed areas shall not be damaged in any way.
- c. Removal and disposal or stockpiling of cuttings shall be performed by the Contractor.
- d. The contract unit price for Cold Planing "Wedge Cut" shall be considered full compensation for furnishing all labor, equipment, tools and incidentals necessary for completing the work as specified and for removing and disposing of all waste materials resulting from the operation.

2.09 Adjust Utility Covers

- a. Storm drain and sewer manhole covers, cleanouts, water valve covers, utility vault and other such utility access covers, within areas to be paved with asphalt concrete shall be adjusted by the Contractor to the new finished grade. The Contractor shall be responsible for verifying the number of utility covers to be adjusted, accurately referencing all covers prior to paving and adjusting the covers after paving has been completed.
- b. Cutting of the new pavements to make utility cover adjustments shall be accomplished without disturbing or deforming asphalt concrete that is to remain. Deformed asphalt concrete shall be removed and repaired as directed by the Engineer.
- c. Unless otherwise specified by the utility owner, cover frames are to be set to grade and backfilled to within 1 1/2 inches of the finished surface with Portland cement concrete. Asphalt concrete conforming to the provisions in Section 2.01 of these technical specifications shall be used to complete the restoration to the new finished surface. Surface tolerances as specified for Asphalt Concrete Overlay shall apply to the restoration of paving surfaces, including the positioning of utility covers and frames.
- d. Compensation for furnishing labor, equipment, materials, and incidentals shall be included in the contract unit price for each utility cover adjustment.

2.10 Remove, Stockpile and Replace PCC Parking Bumpers

- a. Work consists of removing all Portland cement parking bumpers shown on the plans prior to overlay work and replacing and securing the bumpers at their original location.

- b. The parking bumpers shall be removed intact by the Contractor, stored at a safe location, and upon completion of asphalt work, replaced. Precautions should be taken by the Contractor to assure that during removal the bumpers are not damaged. The bumpers shall be secured by the existing means or by means approved by the Engineer. Payment for equipment, labor, material, and incidentals necessary for removing and replacing the bumpers shall be included in the lump sum contract price.

2.11 Portland Cement Concrete Valley Gutter and PCC Curb Reconstruction

- a. The Portland Cement Concrete (PCC) and sidewalk/curb and gutter shall comply with all the requirements specified herein as detailed on the plans and shall be accomplished according to Section 40 and Section 90 of the California State Standard Specifications and local City or County codes and practices.
- b. Concrete
 - (1) The PCC and sidewalk shall consist of concrete conforming to the provisions in Section 90 of the State Standard Specifications. The Type II concrete shall be a minimum 6 sack mix (564-lbs/sq. yd.) using 1 inch maximum combined aggregate, constituents conforming to ASTM C-33. The aggregate shall contain no slag material.
 - (2) No chemical or mineral admixture shall be used in the work unless accompanied by certified test results which verify that the admixture complies with the requirements in the appropriate ASTM designation. If any admixture is approved for use by the Engineer, no reduction of cement content will be allowed.
 - (3) Air-entraining admixtures shall be added to all concrete to produce 5 percent plus/minus 1 percent air by total volume. All use shall conform to Section 90-1 of the State Standard Specifications. Air-entrainment admixture shall conform to ASTM designation C-260.
 - (4) The design mix properties for normal weight concrete mixture shall produce the following properties:
 - i. Compressive strength of specimens prepared in accordance with ASTM C-31, and tested in accordance with ASTM C-39 shall be 4000 psi at 28 days.
 - ii. Flexural strength of specimens prepared in accordance with ASTM C-31, and tested in accordance with ASTM C-78 shall be 650 psi at 28 days.
 - iii. Slump of concrete tested in accordance with ASTM C-143 shall be maximum 3.5 inches, minimum 1.5 inches.
 - iv. Air content of concrete tested in accordance with ASTM C-231 shall be maximum 6.0 percent, minimum 4.0 percent.
- c. Submittals
 - (1) The Contractor shall submit a Portland cement concrete mix design as part of the pre-construction submittal package. The design must be prepared by the California Department of Transportation or a certified testing laboratory. The mix design shall include the following:
 - i. Name of concrete producer and address of plant designated for production.
 - ii. Source and type of Portland cement.

- iii. Source, gradation, percent absorption, specific gravity (bulk and saturated surface dry) and source acceptance test results for each aggregate type.
 - iv. Source, type and manufacturers' data for each type of admixture.
 - v. Material proportion per cubic yard (saturated surface dry weights and absolute volume), quantity of admixture, design water-cement ratio, slump, and air content.
 - vi. Design 28 day compressive strength (3 day, 7 day, 14 day test, if available).
 - vii. Design 28 day flexural strength (3 day, 7 day, 14 day test, if available).
 - viii. Water-cement ratio versus compressive strength curve or history of mix performance.
- (2) The Contractor shall protect the pavement, sidewalk, and appurtenances against both public traffic and traffic caused by his own employees and agents. Any damage to the pavement, occurring prior to opening to the public, shall be repaired or the pavement replaced by the Contractor at no additional cost to the Owner.
- d. Excavation, Removal, Construct
- (1) As directed by the contract plans, the Contractor shall remove, dispose, and reconstruct the Portland cement concrete pavement and sidewalk to the limits shown on the drawings.
 - (2) Removal limits shall have saw-cut edges unless otherwise indicated by the Engineer.
 - (3) The Contractor shall make all arrangements for disposal of excavated materials away from the site.
 - (4) The removed materials will be stockpiled outside the construction area. The Contractor shall provide such means as necessary to prevent the stockpiled material from being a safety issue and shall remove the materials from the site prior to completion of this project.
 - (5) The Contractor shall construct the concrete sidewalk and curb to a thickness and slope as shown on the plans. Placement of reinforcing steel shall be provided as shown in the plans and per this specification. The Contractor shall construct recessed handicap curb ramps at the locations shown in the plans in accordance with ADA guidelines. Curbs shall be constructed integrally with the sidewalk and placed by hand forming or using face forms. Pavement areas designated by the Engineer shall be constructed with 4.0 inch minimum thick, Portland cement concrete as shown on the contract plans. PCCP shall incorporate the use of welded wire mesh or reinforcing bar for reinforcement as noted below. The newly constructed surface shall be free from volunteer cracks, spalls, raveling, and tearing at sawed joints.

e. Steel

- (1) Reinforcing bar as shown on the plans for the sidewalk shall be firmly fastened together at all intersections and overlap a minimum 15 inches. The No. 4, Grade 40 deformed steel bar shall conform to the requirements of ASTM A-615. The surface of all steel shall be free of foreign matter and rust. Steel with such conditions will be subject to use by approval of the Engineer.
- (2) Welded wire fabric used for the PCC shall conform to ASTM A-185. Wire mesh of 10 gauge or thicker in panels or sheets shall be securely tied together to prevent displacement, particularly from being pulled by the paving screed. Roll stock wire shall not be used. At each transverse joint a check should be made to assure proper clearance between mesh ends and the joint. PCC spacers or "dobies" 1 inch in height shall be placed to support the wire fabric in its specified position or as directed by the Engineer and installed so that the reinforcement will have a minimum cover of 2 inches.
- (3) Dowel assemblies shall be placed at right angles to the path of travel. Dowels should be securely held in the required position. Any joint not firmly supported shall be reset. Proper horizontal and vertical alignment should be assured by either approved dowel assembly devices, or by approved machine placement. The vertical edges of the existing pavement for construction joints shown on the plans shall be drilled and 18 inch pins of ½ inch plain round bars placed at 18 inches on center. The free end of each pin shall be coated with an approved lubricant to prevent bond and corrosion. Placement of pins shall not disturb the existing integrity of the pavement.

f. Placing, Finishing

- (1) Truck mixers used for mixing and hauling concrete and truck agitators used for hauling central-mixed concrete shall conform to the requirements of ASTM C-94 and California State Standard Specifications. Batches will be rejected unless placed within 1-1/2 hours after the cement comes in contact with mixing water. Retempering concrete by adding water or by other means shall not be permitted. Addition of water at the site shall at no time exceed the maximum water/cement ratio set forth in the approved mix design. Concrete that is deemed outside these limits shall be rejected by the Engineer. Concrete that is unsuitable for placement as delivered shall be rejected.
- (2) Due to structural limitations, the concrete shall be placed by pumping methods. The pump must be positive displacement, such as the piston or progressive cavity type. It should be noted that the air content may be difficult to maintain by this placement method when boom angle exceeds 15 degrees.
- (3) Placing equipment shall be capable of depositing the concrete to its final position on the grade with a minimum of segregation, and without damage to the structural slab grade and waterproofing system. Concrete shall not be allowed to free fall more than 5 feet without the use of a tremie tube. Consolidation is to be achieved by mechanical vibration. Slip form paving is not recommended for use due to possible compromise of the waterproofing membrane and weight limitations. Multiple eccentrics shall be used on screed lengths of over 10 feet.
- (4) Forms capable of supporting the loads imposed by the construction equipment should be used. Forms should be provided with adequate devices for secure setting so that when in place they will withstand, without visible spring or settlement, the impact and vibration of the consolidating and finishing equipment. The strutting and bracing system shall be secured in a manner in which the underlining waterproofing membrane is in no way penetrated, scored, or damaged. Design and construction of forms should comply with ACI 347. Form panel joints, corners,

connections, and seams should be mortar tight.

Form faces should be treated with a releasing agent to prevent concrete sticking to the forms and thereby aid in stripping.

- (5) In general, adding water to the surface of the concrete to assist in finishing operations shall not be permitted. Any surface irregularities shall be corrected by adding or removing concrete and then straightened. The finished surface shall consist of a skid resistant, light broom finish approved by the Engineer.

g. Joints

- (1) Expansion joints, construction joints, and all contraction joints shall be constructed as indicated in the plans.
- (2) Expansion joints shall consist of a vertical expansion joint filler placed in a butt-type joint as shown in the plans. Preformed joint filler shall be ½ inch wide and in minimum lengths equal to the sidewalk width. An approved installing bar or other device shall be used to ensure proper grade and alignment during placing of the concrete. Finished joints shall not deviate in horizontal alignment and provide adequate clearance to provide joint sealant covering per the plans.
- (3) Construction joints of the types shown in the plans shall be placed from form to form and shaped to the slab decking, to provide expansion relief, or placed whenever the placing of concrete is suspended for more than 30 minutes. A butt joint with steel dowels or a formed key joint shall be used to tie adjacent pavements.
- (4) Contraction joints shall consist of planes of weakness created by forming or cutting grooves in the surface of the pavement. They shall be at least 1 inch in depth. Joints shall be of the dimensions shown in the plans. Sawing of the joints shall begin as soon as the concrete has hardened sufficiently to permit sawing without excessive raveling, usually 4 to 24 hours. All joints shall be sawed before uncontrolled shrinkage cracking occurs. If necessary, the sawing operations shall be carried on both day and night, regardless of weather conditions. A standby saw shall be available in the event of breakdown.

h. Curing

- (1) Concrete shall be cured by protecting it against loss of moisture, rapid temperature change, and mechanical injury for at least 3 days after placement. After finishing operations have been completed, the entire surface of the newly placed concrete shall be covered by a liquid membrane-forming compound meeting the requirements of ASTM C-309. Immediately after the water film has disappeared from the surface of the pavements, but not so late that the liquid curing compound will be absorbed into the concrete, the surface shall be uniformly coated with a clear liquid membrane curing material by means of an approved mechanical spray machine at a rate of not less than 1 gallon per 150 square feet of surface or as per the manufacturers recommendations, but in all cases, complete uniform coverage. Compound shall be applied to the pavement edges immediately after the forms have been removed. Curing compounds alone will not control the concrete temperature and the Contractor shall take necessary steps to prevent rapid or extreme temperature change.
- (2) The Contractor shall have always available materials to protect the surface of the plastic concrete against rain. When rain appears imminent, all concrete placement operations shall stop and the Contractor shall take the necessary steps for complete protection of the unhardened concrete.

i. Sealing Joints

- (1) Immediately after sawing, all joints shall be cleaned and filled to prevent the entrance of fines and incompressibles which promote spalling. The Contractor may place a temporary seal using cotton rope and other means approved by the Engineer at no additional cost to the Owner. All temporary seals shall remain in-place until the placement of the final seal material.
- (2) Joints to be final sealed shall be filled with low-modulus silicone joint-sealing material before the pavement is opened to traffic and as soon after completion of the curing period as is feasible. Just before any sealing, each joint shall be thoroughly cleaned of all foreign material, including membrane curing compound, and joint faces shall be clean and surface-dry when seal is applied. A closed cell, plastic-foam, inert waterproof backer rod, 1/8 inch greater than the joint width shall be placed in accordance with the manufacturers recommendations.
- (3) The sealing material in accordance with ASTM D-1850 shall be applied to each joint opening in accordance with the details shown in the plans or as directed by the Engineer. The joint filling shall be done without spilling material on the exposed surfaces of the concrete. Any excess material on the surface of the concrete pavement shall be removed immediately and the pavement surface cleaned. The use of sand or similar material to cover the seal shall not be permitted. Joint sealing material shall not be placed when the air temperature in the shade is less than 50 degrees F., unless approved by the Engineer. All sealant areas damaged by any force prior to acceptance of the work shall be corrected by the Contractor at his own expense.

j. Payment

- (1) The contract unit price per lineal foot for Curb & Gutter Replacement (6" vertical Curb) and Remove & Replace 3' wide PCC Valley Gutter and PCC used for ADA Improvements at the locations shown on the plans and as directed by the Engineer shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved, including required lab testing, and placing joint seal material and handicap ramps complete in place, as required by these technical specifications.

2.12 ADA Compliance-Ramps

- a. At the location shown on the plans, the Contractor is to construct a Portland cement concrete (PCC) handicap curb ramp. The work requires the removal of existing curb and sidewalks forming for curb cut, placing PCC wheelchair ramps to meet ADA required dimensions, curing concrete, removing forms and backfilling as required.
- b. Curb and sidewalk shall be removed by saw-cutting edges to form neat and true joints or to an adjacent construction or expansion joint. All removed materials and soil shall be disposed of at locations away from project site.
- c. Details and dimensions for construction of ramp are shown in the drawings. All concrete shall be in accordance with Section 90 of the California Standard Specifications for Class 2 Concrete.
- d. As directed by the project plans, the Contractor shall relocate the necessary ADA equipped handicap and employee of the month signs. The work requires the removal of existing sign and poles by saw-cutting the asphalt pavement surface, removing the existing sign, and relocating the structure to the appropriate location and setbacks as shown on the plans. The relocated signs shall be set and backfilled using Portland cement concrete in

accordance with Section 90 of the State Standards to the existing pavement surface.

- e. The underlying material to remain in-place after removal of handicap signs shall be recompacted to 95 percent minimum relative compaction as determined by AASHTO Tests T-180 and T-238. Prior to backfilling to level with Portland cement concrete, the vertical edges of the existing pavement shall receive a tack coat of SS-1 emulsion.
- f. Payment for construction of Portland cement concrete handicap ramps, relocation of existing handicap and employee of the month signs and poles, and installation of van accessible handicap sign shall be at the lump sum price for "ADA Compliance." Compensation will include removal and disposal of all existing material, backfill materials and preparation, labor, tools, equipment, and incidentals to complete the work as required.

2.13 ADA Compliance-Signing and Paint Markings

a. Signing

- (1) As directed by the project plans, the Contractor shall relocate or install new handicap signs required by ADA or California Title 24, whichever is more stringent. This work includes signs at parking lot entrances as well as reserved parking stalls. The handicap signing shall conform to the type, size, and color required by the Americans with Disabilities Act and as shown in the plans.
- (2) New or relocated signs shall be installed with posts as shown in the plans. Where possible, use existing posts in relocations. Mounting of signs on buildings or walls shall be done only at the direction of the Engineer.
- (3) All signs located within pedestrian walkways shall be constructed in accordance with Title III provisions of the Americans with Disabilities Act, Uniform Building Code, local code requirements, and as shown on the plans. All sign installation locations are to be approved by the Engineer.
- (4) The work may require the removal of existing sign and poles by saw-cutting the asphalt or PCC pavement surface, removing the existing sign, and relocating the structure to conform to these specifications. The relocated signs shall be set and backfilled using Portland cement concrete in accordance with Section 90 of the State Standard Specifications. PCC backfill shall be finished flush with the existing pavement surface.
- (5) The underlying material to remain in-place after removal of handicap signs shall be recompacted to 95 percent minimum relative density as determined by AASHTO Tests T-180 and T-238. Prior to backfilling with Portland cement concrete (PCC), the vertical edges of the existing pavement shall receive a tack coat of SS-1 emulsion.
- (6) Portland cement concrete parking bumpers shall be placed as shown on the plans at every designated handicap parking stall. PCC bumpers are to be a minimum of 4 feet in length and secured by means of pins or rebar. Adhesion of bumpers will not be permitted. Placement shall be no closer than 3 feet from sign and post.

b. Handicap Paint Markings

- (1) As directed by the project plans, the Contractor shall construct new or reconstruct existing handicap space layouts and crosswalks to ADA and Title 24 requirements. All handicap paint marking shall comply with Section 2.14 "Paint Markings." Old paint that

requires removal shall be removed by a method proposed by the Contractor and approved by the Engineer.

- (2) New crosswalks shall be constructed with one foot wide "white" paint striping. Walks shall be eight feet wide with 60 degree crosshatching.

c. Payment

- (1) Payment for handicap signing shall be at the contract lump sum price for "ADA Compliance." Payment for handicap paint marking shall be at the contract lump sum price for "Paint Markings." Contract prices shall include all materials, labor, equipment, and incidentals needed to complete the work as specified in these plans and specifications.

2.14 Paint Markings

- a. Description - This work shall consist of constructing painted parking stall lines, traffic stripes, curbs, legends, and walkway delineation to the layout and color that existed prior to commencement of the contract work, unless otherwise directed by the project plans or by the Engineer. This work also includes retouching previously painted surfaces marred by construction activities and eradicating existing paint markings that cannot be matched. Restriping is not required in areas with no construction activity unless specifically noted.
- b. Contractor shall be responsible for conforming to the provisions of these specifications, Title III of The Americans With Disabilities Act and any local codes as those provisions relate to restriping for handicap access.
- c. Materials - Paint for asphalt concrete or asphalt seal coated surfaces shall be a water borne acrylic as may be permitted by local air pollution regulations, rapid or regular dry at the option of the Contractor, commercially available and specified by the manufacturer as being suitable for marking and striping of seal coated and new asphalt pavements. Paint for Portland cement surfaces shall be oil based.
- d. Surface Preparation - Before applying paint, the pavement surface shall be cleaned by sweeping, blowing, vacuuming, or washing as necessary to remove moisture, dirt, oils, grease, acids, laitance or other foreign matter which would reduce the bond between paint and the pavement.
- e. Control Points - The Contractor shall lay out all necessary control points for markings and stripes.
- f. Mixing - Mechanical mixers shall be used to mix paint. Prior to applying, the paint shall be mixed to uniformly blend pigment and solvent together, and shall be kept thoroughly agitated during application.
- g. Application - All equipment used shall produce markings and stripes of uniform quality, true to line and specified thickness.
- h. Painted markings including arrows, legends, striping, and curbs on all pavement surfaces within the area of work are to be replaced with two (2) coats of paint. A cleaning prior to second coat or traffic control required to protect the paint shall be included in this item at no additional cost to the Owner.

- i. Painting shall be applied only on dry surface, when temperatures are 50 degrees F., or above, and when rain, fog or condensation will not cause damage. Painting shall be ceased whenever it is determined by the Engineer that wind will prevent proper paint application.
- j. The rate of paint application shall be one gallon to 125 square feet, or sufficient to produce a wet film thickness not less than 15 mils.
- k. The Contractor shall provide necessary protection for painted surfaces to protect from damage by traffic and pedestrians.
- l. Measurement and Payment - Payment will be made at the lump sum contract price for "Paint Markings." Such payment shall be full compensation for furnishing all labor, materials, tools, equipment, templates and incidentals and performing all work involved in pavement marking and striping as specified and as directed by the Engineer. The lump sum price must include all costs for repainting curbs in areas with construction activity as well as all costs to eradicate paint markings in seal coat areas that cannot be matched.

2.15 Watering

- a. The Contractor shall not draw water from any fire hydrant, except to extinguish a fire, without first obtaining permission (and a meter if required) from the water agency concerned.
- b. Full compensation for developing water supply and applying water, including water used for rollers, dust control, and cleanup, shall be considered as included in the various items of work and no separate payment will be made therefore.

2.16 Clean Up

- a. The Contractor shall clean up the jobsite prior to acceptance of the work. All dirt, spoil, and debris of any nature shall be removed and the entire site shall present a clean, workmanlike appearance. Any damage to paint work, spillage, or splattering from prime coating, paving or seal coating operations shall be corrected to the satisfaction of the Engineer.

END OF SECTION

SECTION 32 05 23

CEMENT AND CONCRETE FOR EXTERIOR IMPROVEMENTS

PART I - GENERAL

1.01 Description

- a. Work Included: Provide cast-in-place concrete where shown on the Drawings, as specified herein, and as needed for a complete and proper installation including:
 - (1) Identified site flatwork.
 - (2) Provisions of the General and Supplementary Conditions and Division One apply here.

1.02 Quality Assurance

- a. Test of Materials: When requested by NOR, all concrete materials shall be tested by an approved testing laboratory. Tests will certify that the following criteria are met:
 - (1) Mix Design: The concrete supplier shall submit a mix design for approval by NOR prior to any concrete work. Mix designs shall indicate source of aggregate and brands of cement and admixtures used. Laboratory designed mixes shall be based on the following minimum proportions:

Class "B": 2500 psi, maximum size of aggregate 1 inch minimum 5.5 sacks (94 lb.) cement per cubic yard of concrete; or 2500 psi, maximum size of aggregate 1½ inch, minimum 5.25 (94 lb.) sacks of cement per cubic yard of concrete.

Class "A": 3000 psi, maximum size of aggregate 1 inch, minimum 5.75 sacks (94 lb.) cement per cubic yard of concrete; or 3000 psi, maximum size of aggregate 1½ inch, minimum 5.50 (94 lb.) sacks of cement per cubic yard of concrete.
 - (2) Slump: The amount of water in the concrete shall be regulated as required to secure concrete of the proper consistency and to adjust for any variation in the moisture content for grading of the aggregate entering the mixer. The slump of the concrete shall not exceed three (3") inches for slabs that are horizontal and four (4") inches for all other concrete. The slump test shall conform to ASTM C143.
 - (3) Concrete Cylinders: Make three (3) identical test cylinders from each one hundred (100) cubic yards of concrete. Test cylinders shall be made and stored in accordance with ASTM C31. Test one (1) cylinder at seven (7) days and two (2) cylinders at twenty-eight (28) days per ASTM C39. Tests will be made on all footings, foundations and structural pours without respect to quantity of concrete. NOR may require tests at anytime.

1.03 Concrete Delivery Slips

- a. The method and time of delivery shall be controlled by the concrete plant issuing delivery slips to the transit mix truck drivers.
- b. These slips shall contain the name and locations of the plant, design strength, size of coarse aggregate, proportions, quantity of water, volume of load, the time that the truck was charged at the plant, and the time mixing was started. Upon arrival at the job site, each slip shall be delivered to the foreman and the foreman shall indicate the number of revolutions mixed and the time the

concrete is discharged from the truck. Properly affixed signatures with date by the concrete vendor and the foreman will complete the form.

- c. It will be the responsibility of the foreman to submit such concrete delivery slips, in their completed form, to NOR for all concrete used.

PART II - PRODUCTS

2.01 General

- a. Concrete shall be composed of cement, fine aggregate, coarse aggregate, and water all mixed and brought to the proper consistency. These mixed proportions shall be determined on the basis of producing concrete having suitable workability, density, impermeability, durability, and shall meet the required compressive strengths as follows:
 - (1) All concrete used for footings and structural purposes slabs shall be class "A" concrete having a minimum compressive strength of at least 3000 psi at 28 days, 1800 psi at 7 days.
 - (2) All other concrete slabs, walkways, mow strips, etc., shall be class "B" concrete having a minimum compressive strength of at least 2500 psi at 28 days, 1500 psi at 7 days.

2.02 Concrete Materials

- a. Portland cement shall conform to ASTM C150, Type II low alkali. Do not change cement type during progress of work without approval of NOR.
- b. Aggregates shall be non-reactive and conform to "Standard Specifications for Concrete Aggregates," ASTM C33.
 - (1) Coarse aggregate shall be 1" to ¾" washed gravel with fineness modulus, 6.90 to 7.40.
 - (2) Fine aggregate shall be washed natural sand containing no more than 2% by weight of deleterious material and fineness modulus, 2.65 to 3.05.
- c. Water shall be clean, fresh, and free from acid, alkali, organic matter or other impurities likely to be detrimental to the concrete.
- d. Admixtures shall be used only upon approval of NOR and in accordance with the manufacturer's recommendations.
 - (1) Air-entraining admixtures must conform to ASTM C260.
 - (2) Water-reducing admixtures should conform to ASTM C494

2.03 Miscellaneous Materials

- a. Joint Materials and Devices:
 - (1) Keyed Joint: Provide a compressible, premoulded asphalt keyway that will compress and recover during expansion and contraction cycles, fully capable of accommodating load transfer over keyway area. Incompressible steel keyways will not be permitted. Provide SEALTIGHT Premoulded Tongue & Groove Joint or equal, as manufactured by W. R. Meadows of California (800) 342-5976, or equal.

- (2) Standard Expansion Joints: Provide non-extruding, premoulded bituminous impregnated fiber expansion joints to the depth of the slabs meeting ASTM D1751. Provided SEALTIGHT Fibre Expansion Joint, by W. R. Meadows of California or equal.
- (3) Non-Bituminous Expansion Joints: Provide one or more of the following non-extruding, non-bituminous joints compatible with polyurethane and polysulfide sealants. Quality assurance: Provide products equal to W. R. Meadows products:
 - "SEALTIGHT Sponge Rubber," ASTM D1752, Type 1
 - "SEALTIGHT Standard Cork," ASTM D1752, Type 2
 - "SEALTIGHT Ceramar," ASTM D1752, Modified
- (4) Removable Joint Cap for Sealant: "Snap-Cap" by W. R. Meadows of California or equal.
- (5) Control Joints: Shall be a minimum ½" width x 1 = ½" depth tooled or saw cut joints. Control joints may be plastic such as "Speed-E-Joint" or equal.
- (6) Joint Sealants: Provide type compatible with joint filler.
- b. Bonding Agent: Provide standard polyvinyl acetate bonding agent with a minimum solids content of 55%. Quality Assurance: "DECK-O-WELD," DFC Company or equal.
- c. Vapor Barrier: Provide vapor barrier over prepared base where indicated on the Drawings. Vapor barrier shall consist of a seven-ply, asphalt composite membrane having a Water Vapor Transmission Rating (WVT) of 0.000 grains per square foot per hour as measured in accordance with ASTM E96, Method B. Vapor barrier shall be resistant to radon gases, designed to last the life of the structure. Provide SEALTIGHT Premoulded Membrane with Plasmatic Core or equal.

2.04 Cement Grout and Drypack

- a. Cement Grout: Mix one part by volume of Portland cement, ½ part by volume of water and fine aggregate enough to make a mixture that flows under its own weight.
- b. Drypack: Mix one part by volume of Portland cement, ½ by volume of water and fine aggregate enough to make a stiff mix that will mold into a ball. Mix no more than can be used in 30 minutes.

PART III - EXECUTION

3.01 Inspection

- a. Inspect the actual field conditions and verify with drawings. Report all discrepancies to NOR before proceeding with this work. Insure that access and safety of the job site are maintained, allowing successful placement of the concrete and minimal disturbance to other work.
- b. Verify the dimensions and positions of required reglets and rebates with trades whose work is related to or contingent upon such dimensions and positions.

3.02 Concrete Mixing

- a. Use fresh ready-mixed concrete complying with other parts of these specifications and conforming to the specification for "Ready Mixed Concrete," ASTM designation C94, subject to the following conditions:

- (1) The mixers and their operation shall be such that the concrete throughout the mixed batch and from batch to batch is uniform with respect to consistency and grade.
 - (2) Each mixer should be equipped with an accurate water meter between supply trough and mixer. The meter shall have an indicating gauge or dial.
 - (3) Each mixer should be equipped with a revolution counter for indicating the amount (not speed) of mixing. The batch should be mixed only 75% of the required number of revolutions at mixing speed prior to inspection of consistency at the point of delivery; then mix the additional revolutions required to obtain the proper slump.
 - (4) Concrete shall be mixed for a period of not less than ten (10) minutes and at least three (3) minutes of the mixing period shall be immediately prior to discharging at the job site.
- b. Addition of Water:
- (1) Normally, do not deliver concrete with total permissible amount of water incorporated therein.
 - (2) Unless otherwise approved by NOR, withhold at least 2½ gallons per cubic yard and add before the concrete is discharged, but only under observation of NOR or designated inspector.
 - (3) After water is added, at least five (5) minutes of mixing time shall occur prior to discharge.
 - (4) Concrete will be rejected if not placed in final position within one (1) hour after water is first added to the batch.
- c. Concrete, at time of placing, shall be in such condition that it can be placed properly. Retempering partially set concrete with additional water will not be permitted.
- d. Cold Weather Requirements: Concrete shall not be placed on frozen ground, nor shall it be mixed or placed while the atmospheric temperature is below 35 degrees F, unless means are employed to heat the aggregates and water so the concrete shall have a minimum temperature of 50 degrees F. The concrete shall then be protected from freezing or frost for a period of five (5) days after placing. Calcium chloride shall not be added to the mix.

3.03 Conveying and Placing Concrete

- a. No concrete shall be placed in any unit of work until all formwork has been completely prepared, all reinforcement has been secured in place, all items to be set into concrete are in place, and form ties at construction joints tightened.
- b. Before placing concrete, mixing and conveying equipment shall be well cleaned, the forms and space to be occupied by concrete shall be thoroughly cleaned, and shall be wetted. Ground water shall be removed until the completion of the work.
- c. Concrete shall be conveyed from mixer to the place of final deposit in such a way to prevent the separation or loss of ingredients. It shall be placed as nearly as practicable in its final position to avoid rehandling or flowing. Concrete shall not be dropped freely where reinforcing bars will cause segregation, nor shall it be dropped freely more than six (6) feet. Use tremies, spouts and dump boxes in deep sections.
- d. Concrete shall be tamped and spaded to ensure maximum density and proper compaction into all voids of forms and around reinforcement. In addition to manual tampers, a mechanical vibrator may be required to thoroughly compact the concrete. Vibration must be by direct action in the concrete and not against forms or reinforcement.

- e. Once concreting is started, it shall be carried on as a continuous operation at such a rate that the concrete surface is at all times plastic and flows readily until the section is completed between predetermined construction joints. Do not place concrete outside of regular working hours unless required inspection authorities have been notified properly and are present.

3.04 Construction Joints

- a. Construction joints to be provided according to normal practices and at locations and in the manner shown on the Drawings.
 - (1) Joints shall meet curves and angles to eliminate narrow pie-shaped pieces that will have a tendency for weakness and easy breaking.
 - (2) Joints in slabs on grade shall be as shown on the plans or shall be spaced a maximum of 24'-0" O.C. for interior reinforced slabs, and 15'-0" for exterior non-reinforced concrete slabs. Joints in exterior reinforced slabs shall be as indicated on the plans. Tool edges of slabs at construction joints and other exposed corners.

3.05 Concrete Slab Placement

- a. Placing and Finishing:
 - (1) Tamp the freshly placed concrete, except slabs to receive separate topping finish or mortar setting bed, using a heavy tamper, until at least 3/8" of mortar is brought to the surface.
 - (2) Use tampers having a face consisting essentially of a grid of parallel metal bars.
 - (3) Tamp with a light tamper and screed with a heavy straightedge, until depressions and irregularities are worked out and the surface is true to finish grades and elevations, keeping in mind the requirement for a positive draining finish surface on all exterior surfaces.
 - (4) Remove excess water and debris worked to the surface in compacting and screeding.
 - (5) For slabs to receive a separate topping finish or mortar setting bed, do not continue tamping to raise the mortar described in subparagraph 3.05-a-3 above.
 - (6) When concrete has hardened sufficiently, float to a compact and smooth surface.
 - (7) Provide the finish surfaces shown on the Drawings.

3.06 Grouting and Cement Pointing

- a. After steel columns have been installed and leveled, drypack the space between the bottom of the plate and concrete, using cement grout driven in to completely fill the space and forming solid bearing for the column base plate.

3.07 Protection and Curing

- a. Concrete shall be protected from injurious action of the elements and defacement of any nature during construction, Contractor to provide watchman after each pour.
- b. All forms shall be kept moist to prevent drying out of the concrete, including earth from excavations or backfill.

- c. All concrete surfaces including footings must be kept wet for at least seven (7) days after concrete is placed.
- d. After concrete has been placed, forms removed and concrete work finished, cured and approved, backfill the excavations with earth to indicated or required grades. Carry on backfilling simultaneously on each side of walls or grade beams.

3.08 Embedded Items

- a. Cooperate with all trades to assure that all embedded items are properly installed and secured in correct position before placing concrete. All embedded items shall be thoroughly cleaned and free from rust, scale, oil or other foreign matter.

3.09 Defective Concrete

- a. Cut out, remove and replace, or repair to the satisfaction of NOR, concrete not meeting minimum strength, not formed as indicated, not true, plumb or level, not to required elevations, containing cracks detrimental to performance or appearance, and containing shavings, debris, honeycombs or voids.
- b. Promptly perform work required to repair, patch, replace, render properly cleaned surfaces (by sandblasting, if necessary) or otherwise make good any defective concrete, at Contractor's expense, including expense of additional inspection, tests or supervision made necessary as a result of defective concrete.

END OF SECTION