



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

**STANDARD LOW BID PROJECT – INVITATIONAL
Project Budgets \$50,000 - \$100,000**

July 20, 2009

**WASATCH MOUNTAIN STATE PARK GOLF COURSE
CART PATH PAVING IMPROVEMENTS**

DIVISION OF PARKS AND RECREATION

MIDWAY, UTAH

DFCM Project Number 09135510

Wasatch Mountain State Park
975 West Golf Course Drive
Midway, Utah 84049

TABLE OF CONTENTS

	<u>Page Numbers</u>
Title Sheet	1
Table of Contents	2
Invitation to Bid	3
Project Description	4
Project Schedule	5
Bid Form	6
Instructions to Bidders	8
Bid Bond	12
Instructions and Subcontractors List Form	13
Contractor's Agreement	16
Performance Bond	21
Payment Bond	22
Certificate of Substantial Completion	23
General Contractor Past Performance Rating	
Technical Specifications:	
Drawings:	

Current copies of the following documents are hereby made part of these contract documents by reference. These documents are available on the DFCM web site at <http://dfcm.utah.gov/StdDocs/index.html> "Reference Documents 1 - 6. Supplemental General Conditions" or are available upon request from DFCM:

DFCM Supplemental General Conditions dated July 1, 2009 *

DFCM Supplemental General Conditions dated July 15, 2008

DFCM General Conditions dated May 25, 2005

DFCM Application and Certification for Payment dated May 25, 2005.

*** NOTE: THE NEW SUPPLEMENTAL GENERAL CONDITIONS EFFECTIVE JULY 1, 2009 DEALING WITH HEALTH INSURANCE AND IMMIGRATION ARE REFERENCED AT THE LINK ABOVE.**

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at <http://dfcm.utah.gov>

INVITATION TO BID

Only firms that have been invited to submit bids on this project are allowed to bid on this project.

Sealed bids will be received by the Division of Facilities Construction and Management (DFCM) for:

**WASATCH MOUNTAIN STATE PARK GOLF COURSE CART PATH PAVING
IMPROVEMENTS
DFCM PROJECT NO: 09135510**

<u>Company</u>	<u>Contact</u>	<u>Fax</u>
Preferred Paving	Bill Panunzio	801-908-6644
DRD Paving, LLC	David O. Harrison	801-288-1001
Eckles Paving	Jake Martinez	801-489-6859
Morgan Pavement	Brian Allen	801-416-8061
Geneva Rock Products	Albert Schellenberg	801-281-7939

Bids will be in accordance with the Contract Documents that will be available on **Monday, July 20, 2009**, and distributed in electronic format only on CDs from DFCM, 4110 State Office Building, Salt Lake City, Utah and on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact Brent Lloyd, DFCM, at 801-550-5882. No others are to be contacted regarding this bidding process. The construction estimate for this project is \$70,000.00.

A **mandatory** pre-bid meeting will be held at **10:00 A.M.** on **Wednesday, July 22, 2009** at **Wasatch Mountain State Park Golf Course, meet at the Golf Course Club House**. All bidders wishing to bid on this project are required to attend this meeting.

Bids will be received until the hour of **2:00 PM on Tuesday, August 4, 2009** at DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. NOTE: Bids must be received at 4110 State Office Building by the specified time.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction and Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of DFCM.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

Joanna Reese, Contract Coordinator
4110 State Office Building, Salt Lake City, Utah 84114

PROJECT DESCRIPTION

This project is an effort to expand and improve the surface condition of the asphalt cart path at Wasatch Mountain State Park Golf Course. It will include work on the cart path at Tee #2, 7, 14 and 18 as described in the scope of work and specifications provided. Bids shall be all inclusive lump sum cost.

The challenge in this project will be accomplishing the work while the course is in use. Communication, planning and scheduling with golf course staff will be important in successfully completing the project. The Contractor will be responsible for all barricades and traffic control necessary to assure the safety of all those using the course at each area of the project while under construction.

**PROJECT SCHEDULE**

**PROJECT NAME: WASATCH MOUNTAIN STATE PARK GOLF COURSE CART PATH
DIVISION OF PARKS & RECREATION – MIDWAY, UTAH
DFCM PROJECT NO. 09135510**

Event	Day	Date	Time	Place
Bidding Documents Available	Monday	July 20, 2009	2:00 PM	DFCM 4110 State Office Bldg SLC, UT and the DFCM web site *
Mandatory Pre-bid Site Meeting	Wednesday	July 22, 2009	10:00 PM	Wasatch Mtn. State Park Golf Course Club House 975 West Golf Course Dr. Midway, Utah
Last Day to Submit Questions	Monday	July 27, 2009	2:00 PM	Brent Lloyd – DFCM brentlloyd@utah.gov Fax 801-538-3267
Addendum Deadline (exception for bid delays)	Thursday	July 30, 2009	2:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	Tuesday	August 4, 2009	2:00 PM	DFCM 4110 State Office Bldg SLC, UT
Sub-contractor List Due	Wednesday`	August 5, 2009	2:00 PM	DFCM 4110 State Office Bldg SLC, UT Fax 801-538-3677
Substantial Completion Date	Thursday	September 24, 2009	4:00 PM	

* **NOTE:** DFCM's web site address is <http://dfcm.utah.gov>



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

BID FORM

NAME OF BIDDER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the **Wasatch Mountain State Park Golf Course Cart Path Paving Improvements – Division of Parks & Recreation – Midway, Utah – DFCM Project No. 09135510** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by September 24, 2009, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **\$250.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Bidder

ADDRESS:

Authorized Signature

INSTRUCTIONS TO BIDDERS

1. Drawings and Specifications, Other Contract Documents

Drawings and Specifications, as well as other available Contract Documents, may be obtained as stated in the Invitation to Bid.

2. Bids

Before submitting a bid, each contractor shall carefully examine the Contract Documents, shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the Contract Documents. If the bidder observes that portions of the Contract Documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Representative and the necessary changes shall be accomplished by Addendum.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Invitation to Bid prior to the deadline for submission of bids.

A bid bond properly signed by a qualified surety, as indicated on the DFCM Bid Bond form provided along with this Instruction to Bidders, in the amount of 5% of the bid, shall accompany the bid submission to DFCM. **THIS BID BOND MUST BE ON THE DFCM BID BOND FORM PROVIDED WITH THIS INSTRUCTION TO BIDDERS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID** unless only one bid is received by DFCM, or the failure to comply with the bid bond requirements is determined by the Director of DFCM to be nonsubstantial based on the following:

- (a) the bid bond is submitted on a form other than DFCM's required Bid Bond form and the bid bond meets all other requirements including being issued by a surety firm authorized to do business in the State of Utah and be listed in the U.S. Department of the Treasury Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies for an amount not less than the amount of the bond to be issued. A co-surety may be utilized to satisfy this requirement; and
- (b) the contractor provides a bid bond properly signed by a qualified surety and on the required DFCM Bid Bond form by the close of business of the next succeeding business day after the DFCM notifies the bidder of the defective bid bond.

3. Contract and Bond

The Contractor's Agreement will be in the form found in the specifications. The Contract Time will be as indicated in the bid. The successful bidder, simultaneously with the execution of the Contract Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the contract sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for subcontractors will be specified in the Supplementary General Conditions.

4. Listing of Subcontractors

Listing of Subcontractors shall be as summarized in the “Instructions and Subcontractor’s List Form”, which are included as part of these Contract Documents. The Subcontractors List shall be delivered to DFCM or faxed to DFCM at 801-538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the Contract Documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements is subject to a debarment hearing and may be debarred from consideration for award of contracts for a period of up to three years.

5. Interpretation of Drawings and Specifications

If any person or entity contemplating submitting a bid is in doubt as to the meaning of any part of the drawings, specifications or other Contract Documents, such person shall submit to the DFCM Project Manager a request for an interpretation thereof. The person or entity submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addenda posted on DFCM’s web site at <http://dfcm.utah.gov>. Neither the DFCM nor A/E will be responsible for any other explanations or interpretations of the proposed documents. A/E shall be deemed to refer to the architect or engineer hired by DFCM as the A/E or Consultant for the Project.

6. Addenda

Addenda will be posted on DFCM’s web site at <http://dfcm.utah.gov>. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda may result in disqualification from bidding.

7. Award of Contract

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of the State of Utah to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc.

8. DFCM Contractor Performance Rating

As a contractor completes each DFCM project, DFCM, the architect/engineer and the using agency will evaluate project performance based on the enclosed “DFCM Contractor Performance Rating” form. The ratings issued on this project will not affect this project but may affect the award on future projects.

9. Licensure

The Contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

10. Permits

In concurrence with the requirements for permitting in the General Conditions, it is the responsibility of the Contractor to obtain the fugitive dust plan requirements from the Utah Division of Air Quality and the SWPPP requirements from the Utah Department of Environmental Quality and submit the completed forms and pay any permit fee that may be required for this specific project. Failure to obtain the required permit may result in work stoppage and/or fines from the regulating authority that will be the sole responsibility of the Contractor. Any delay to the project as a result of any such failure to obtain the permit or noncompliance with the permit shall not be eligible for any extension in the Contract Time.

11. Right to Reject Bids

DFCM reserves the right to reject any or all Bids.

12. Time is of the Essence

Time is of the essence in regard to all the requirements of the Contract Documents.

13. Withdrawal of Bids

Bids may be withdrawn on written request received from bidder prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

14. Product Approvals

Where reference is made to one or more proprietary products in the Contract Documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the Contract Documents, the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the drawings and specifications and are compatible with the intent and purpose of the design, subject to the written approval of the A/E. Such written approval must occur prior to the deadline established for the last scheduled addenda to be issued. The A/E's written approval will be in an issued addendum. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the A/E.

15. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the contractor, subcontractor or sub-subcontractor.

16. Debarment

By submitting a bid, the Contractor certifies that neither it nor its principals, including project and site managers, have been, or are under consideration for, debarment or suspension, or any action that would exclude such from participation in a construction contract by any governmental department or agency. If the Contractor cannot certify this statement, attach to the bid a detailed written explanation which must be reviewed and approved by DFCM as part of the requirements for award of the Project.

**Division of Facilities Construction and****INSTRUCTIONS AND SUBCONTRACTORS LIST FORM**

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of **ALL** first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, based on the following:

DOLLAR AMOUNTS FOR LISTING

PROJECTS UNDER \$500,000: ALL FIRST-TIER SUBS \$20,000 OR OVER MUST BE LISTED
PROJECTS \$500,000 OR MORE: ALL FIRST-TIER SUBS \$35,000 OR OVER MUST BE LISTED

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- If there are no subcontractors for the job that are required to be reported by State law (either because there are no subcontractors that will be used on the project or because there are no first-tier subcontractors over the dollar amounts referred to above), then you do not need to submit a sublist. If you do not submit a sublist, it will be deemed to be a representation by you that there are no subcontractors on the job that are required to be reported under State law. At any time, DFCM reserves the right to inquire, for security purposes, as to the identification of the subcontractors at any tier that will be on the worksite.

LICENSURE:

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

'SPECIAL EXCEPTION':

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A. Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

GROUND FOR DISQUALIFICATION:

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for

INSTRUCTIONS AND SUBCONTRACTORS LIST FORM
Page No. 2

such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

- (1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
- (2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
- (3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
- (4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
- (5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
- (6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

EXAMPLE:

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONTRACTOR LICENSE #
ELECTRICAL	ABCD Electric Inc.	\$350,000.00	123456789000
LANDSCAPING	"Self" *	\$300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	\$298,000.00	987654321000
MECHANICAL	"Special Exception" (attach documentation)	Fixed at: \$350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

* Bidders may list "self", but it is not required.

PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS SUBCONTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.



SUBCONTRACTORS LIST
FAX TO 801-538-3677

PROJECT TITLE: _____

Caution: You must read and comply fully with instructions.

Table with 4 columns: TYPE OF WORK, SUBCONTRACTOR, 'SELF' OR 'SPECIAL EXCEPTION', SUBCONTRACTOR BID AMOUNT, CONT. LICENSE #

We certify that:

- 1. This list includes all subcontractors as required by the instructions, including those related to the base bid as well as any alternates.
2. We have listed 'Self' or 'Special Exception' in accordance with the instructions.
3. All subcontractors are appropriately licensed as required by State law.

FIRM: _____

DATE: _____

SIGNED BY: _____

NOTICE: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR OWNER'S REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY OWNER. ATTACH A SECOND PAGE IF NECESSARY.

CONTRACTOR'S AGREEMENT

FOR:

THIS CONTRACTOR'S AGREEMENT, made and entered into this ____ day of _____, 20__, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and _____, incorporated in the State of _____ and authorized to do business in the State of Utah, hereinafter referred to as "Contractor", whose address is _____.

WITNESSETH: WHEREAS, DFCM intends to have Work performed at _____.

WHEREAS, Contractor agrees to perform the Work for the sum stated herein.

NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:

ARTICLE 1. SCOPE OF WORK. The Work to be performed shall be in accordance with the Contract Documents prepared by _____ and entitled "_____."

The DFCM General Conditions ("General Conditions") dated May 25, 2005 and Supplemental General Conditions dated July 15, 2008 and July 1, 2009 ("also referred to as General Conditions") on file at the office of DFCM and available on the DFCM website, are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.

ARTICLE 2. CONTRACT SUM. The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of _____ DOLLARS AND NO CENTS (\$_____.00), which is the base bid, and which sum also includes the cost of a 100% Performance Bond and a 100%

CONTRACTOR'S AGREEMENT
PAGE NO. 2

Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY. The Work shall be Substantially Complete by _____. Contractor agrees to pay liquidated damages in the amount of \$_____ per day for each day after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement; (c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Invitation to Bid, Instructions to Bidders/ Proposers and the Bid/Proposal, to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

ARTICLE 5. PAYMENT. The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the Contractor requests payment and agrees to

safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

ARTICLE 6. INDEBTEDNESS. Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

ARTICLE 7. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

ARTICLE 8. INSPECTIONS. The Work shall be inspected for acceptance in accordance with the General Conditions.

ARTICLE 9. DISPUTES. Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT. This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF. The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

ARTICLE 12. INDEMNIFICATION. The Contractor shall comply with the indemnification provisions of the General Conditions.

ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT. The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights and responsibilities of this Contractor's Agreement. The Contractor shall not assign this Contractor's Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor's Agreement, without prior written consent of the DFCM.

ARTICLE 14. RELATIONSHIP OF THE PARTIES. The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT. Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

ARTICLE 16. ATTORNEY FEES AND COSTS. Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.

CONTRACTOR'S AGREEMENT
PAGE NO. 5

IN WITNESS WHEREOF, the parties hereto have executed this Contractor's Agreement on the day and year stated hereinabove.

CONTRACTOR: _____

Signature Date

Title: _____

Please type/print name clearly

State of _____)

County of _____)

On this ____ day of _____, 20____, personally appeared before me, _____, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that he (she) is the _____ (title or office) of the firm and that said document was signed by him (her) in behalf of said firm.

Notary Public

My Commission Expires _____

(SEAL)

APPROVED AS TO AVAILABILITY
OF FUNDS:

David D. Williams, Jr. Date
DFCM Administrative Services Director

**DIVISION OF FACILITIES
CONSTRUCTION AND MANAGEMENT**

Lynn A. Hinrichs Date
Assistant Director Construction Management

APPROVED AS TO FORM:
ATTORNEY GENERAL
July 1, 2009
By: Alan S. Bachman
Asst Attorney General

APPROVED FOR EXPENDITURE:

Division of Finance Date

PERFORMANCE BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That _____ hereinafter referred to as the "Principal" and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee," in the amount of _____ DOLLARS (\$) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____, for the approximate sum of _____ Dollars (\$ _____), which Contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____

(Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____

Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney in-fact of the above-named Surety Company and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires: _____

Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

PAYMENT BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____ authorized to do business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah hereinafter referred to as the "Obligee," in the amount of _____ Dollars (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____ for the approximate sum of _____ Dollars (\$ _____), which contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to Principal or Principal's Subcontractors in compliance with the provisions of Title 63, Chapter 56, of Utah Code Annotated, 1953, as amended, and in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

That said Surety to this Bond, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder, or the specifications or drawings accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to the Work or to the specifications or drawings and agrees that they shall become part of the Contract Documents.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____ (Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____ Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____
Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General



CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT _____ PROJECT NO: _____

AGENCY/INSTITUTION _____

AREA ACCEPTED _____

The Work performed under the subject Contract has been reviewed on this date and found to be Substantially Completed as defined in the General Conditions; including that the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the State of Utah can occupy the Project or specified area of the Project for the use for which it is intended.

The DFCM - (Owner) accepts the Project or specified area of the Project as Substantially Complete and will assume full possession of the Project or specified area of the Project at _____ (time) on _____ (date).

The DFCM accepts the Project for occupancy and agrees to assume full responsibility for maintenance and operation, including utilities and insurance, of the Project subject to the itemized responsibilities and/or exceptions noted below:

The Owner acknowledges receipt of the following closeout and transition materials:

- As-built Drawings O & M Manuals Warranty Documents Completion of Training Requirements

A list of items to be completed or corrected (Punch List) is attached hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereof. The amount of _____(Twice the value of the punch list work) shall be retained to assure the completion of the punch list work.

The Contractor shall complete or correct the Work on the list of (Punch List) items appended hereto within _____ calendar days from the above date of issuance of this Certificate. The amount withheld pending completion of the list of items noted and agreed to shall be: \$_____. If the list of items is not completed within the time allotted the Owner has the right to be compensated for the delays and/or complete the work with the help of independent contractor at the expense of the retained project funds. If the retained project funds are insufficient to cover the delay/completion damages, the Owner shall be promptly reimbursed for the balance of the funds needed to compensate the Owner.

CONTRACTOR (include name of firm) by: _____ (Signature) DATE

A/E (include name of firm) by: _____ (Signature) DATE

USING INSTITUTION OR AGENCY by: _____ (Signature) DATE

DFCM (Owner) by: _____ (Signature) DATE

**General Contractor Performance Rating Form**

Project Name:		DFCM Project#	
Contractor: (ABC Construction, John Doe, 111-111-1111)	A/E: (ABC Architects, Jane Doe, 222-222-2222)	Original Contract Amount:	Final Contract Amount:
DFCM Project Manager:		Contract Date:	
Completion Date:		Date of Rating:	

Rating Guideline	QUALITY OF PRODUCT OR SERVICES	COST CONTROL	TIMELINESS OF PERFORMANCE	BUSINESS RELATIONS
5-Exceptional	Contractor has demonstrated an exceptional performance level in any of the above four categories that justifies adding a point to the score. Contractor performance clearly exceeds the performance levels described as "Very Good"			
4-Very Good	Contractor is in compliance with contract requirements and/or delivers quality product/service.	Contractor is effective in managing costs and submits current, accurate, and complete billings	Contractor is effective in meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is effective
3-Satisfactory	Minor inefficiencies/errors have been identified	Contractor is usually effective in managing cost	Contractor is usually effective in meeting milestones and delivery schedules	Response to inquires technical/service/administrative issues is somewhat effective
2-Marginal	Major problems have been encountered	Contractor is having major difficulty managing cost effectively	Contractor is having major difficulty meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is marginally effective
1-Unsatisfactory	Contractor is not in compliance and is jeopardizing achievement of contract objectives	Contractor is unable to manage costs effectively	Contractor delays are jeopardizing performance of contract objectives	Response to inquiries, technical/service/administrative issues is not effective

1. Rate Contractors quality of workmanship, management of sub contractor performance, project cleanliness, organization and safety requirement.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

2. Rate Contractor administration of project costs, change orders and financial management of the project budget.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

3. Rate Contractor's performance and adherence to Project Schedule, delay procedures and requirements of substantial completion, inspection and punch-list performance.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

4. Evaluate performance of contractor management team including project manager, engineer and superintendent also include in the rating team's ability to work well with owner, user agency and consultants.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

5. Rate success of Contractor's management plan, completion of the plans mitigation of project risks and performance of value engineering concepts.	Score
<u>Agency Comments:</u>	
<u>A & E Comments:</u>	
<u>DFCM Project Manager Comments:</u>	

Signed by:	Date:	Mean Score
-------------------	--------------	-------------------

Additional Comments:

WASATCH MOUNTAIN
STATE PARK
CART PATH IMPROVEMENTS
STANDARD SPECIFICATIONS

July 2009

Prepared By:

HORROCKS

E N G I N E E R S

TABLE OF CONTENTS

01450	Testing and Process Control
02250	Soil Compaction
02504	Asphalt Concrete
02510	Asphalt Paving
02550	Trails

SECTION 01450

TESTING AND PROCESS CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section defines the responsibility of the Contractor to adequately test native materials and construction materials, and to furnish Horrocks Engineers (Engineer) with manufacturer's certifications of material quality.

1.02 QUALITY ASSURANCE

- A. The Contractor shall be responsible for all sampling, delivery of samples to a qualified testing agency, testing, and delivery of test results or materials certifications to Engineer. Testing and certifications reports shall be approved by Engineer as to conformance to construction specifications prior to final inspection and/or acceptance by Engineer of any materials or workmanship.

1.03 SUBMITTALS

- A. Field Test Report: When possible submit original reports immediately to Engineer, but in no case later than end of following day.
- B. Laboratory Test Report: Submit original report to Engineer within 48 hours after test results are determined.

PART 2 EXECUTION

2.01 SAMPLING

- A. Sampling of materials shall be as specified in each test.
- B. The Engineer may require that sampling be performed in their presence, in which case the Developer or Contractor shall be notified of this requirement in writing, as applicable.
- C. The presence of the Engineer shall not relieve the Contractor of any requirement in this Section.
- D. Each sample or test shall be accompanied by the following written data, which shall be reported to the City with test results:
 - 1. Name of Project
 - 2. Name of Contractor
 - 3. Project Location

4. Appropriate Test Name
5. Date of Sampling
6. Sample Number (if more than one sample per day)
7. Name of technician who performed the testing
8. Location of sample

2.02 TESTING AGENCY

- A. All materials testing, whether in a laboratory or in the field, shall be conducted by a testing agency approved by the Engineer.

2.03 SOIL CLASSIFICATION TEST

- A. The soil classification test shall be conducted to determine the suitability of native soils for trail sub-base.
- B. The soil classification test shall conform to AASHTO M-146 of latest revision.
- C. The soil shall be classified according to AASHTO soil classifications.
- D. One soil classification test shall be required for each test area. A test area shall be limited to one parcel of one soil type, a maximum 300 feet long.
- E. The soil sample shall be taken from a test area at a minimum depth of 24 inches below the future design grades, of native soil, and shall be free from foreign material, asphalt, concrete, ice or manmade materials.
- F. The results of all determinations shall be reported in writing to the Engineer.

2.04 COMPACTION TEST OF SOIL AND UNTREATED BASE COURSE

- A. Laboratory tests to establish maximum laboratory density shall be determined in accordance with AASHTO T-180, Method D for A-1 classification soils and AASHTO T-99, Method D for all other soils.
- B. Samples to determine laboratory density shall be taken from the stockpiled backfill or from the un-compacted base course in place.
- C. The acceptance of soil and base course, with respect to compaction, shall be based upon the average density of all density tests made in a lot.
 1. Field density tests shall be as specified by AASHTO T-191 or by use of a portable nuclear density testing device. Field density tests shall be taken at a depth equal to $\frac{1}{2}$ the maximum depth of the lift tested.
 2. A lot shall equal the amount of soil or untreated base course compacted in each production day.

3. A test lot shall be divided into sublots and one density test shall be taken within each subplot.
 4. The location of sampling sites within the subplot shall be chosen on a random basis by use of a suitable random number table.
 5. Each test lot shall have a minimum of two (2) sublots. A subplot shall be no larger 1,000 tons for untreated road base.
- D. The test results of all samples tested shall be reported to the Engineer. A test lot shall be accepted when the average of the density determinations is not less than the density required for that improvement in these specifications and when no one density determination is less than 95% of the density required by these specifications.
- E. Compaction tests not conforming to required specifications may be rejected and re-compaction or related construction efforts to obtain compaction shall be at the owner's expense.

2.05 TEST ROLL OF TRAILWAY SUBGRADE

- A. Roll Test shall be performed when required by the Engineer to determine the structural integrity of the subgrade and trail section.
- B. The Roll Test shall be performed as follows:
1. The contractor shall provide a loaded vehicle to drive over the subgrade material within the trailway.
 2. The loaded vehicle shall be driven slowly over the subgrade to locate soft spots in the subgrade surface.
 3. Soft spots in the subgrade shall be identified and marked by Horrocks.
 4. It shall be the owner's responsibility to remove the rejected subgrade material to depth determined by the Engineer. The rejected material shall be replaced with A-1 granular backfill approved by Engineer.

2.06 GRADATION TEST OF UNTREATED BASE COURSE

- A. The gradation of untreated base course shall be determined in accordance with AASHTO T-27. The Contractor may use pulverized asphalt from the existing trail provided there is no objectionable material such as tree roots, foreign material, ice, or manmade materials. The material shall be inspected prior to placement.
- B. The total amount of material passing the No. 200 sieve shall be determined by washing in water in accordance with AASHTO T-11.
- C. The acceptance of road base with respect to gradation shall be based upon the average of all determinations in a lot. A lot shall be limited to one source of borrow and limited to this project. One sample shall be required for each 1,000 tons of untreated base course in a test lot.
- D. The location of sampling sites within a test lot shall be chosen on a random basis by a suitable random number table.

- E. All material not conforming to the specified gradations may be rejected at the owner's expense.

2.07 EXTRACTION - GRADATION TESTING OF BITUMINOUS SURFACE COURSE

- A. Samples of the bituminous surface course or asphalt concrete shall be tested with respect to gradation and bitumen content in accordance with Utah Department of Highways Test Procedure 8-946 and 8-947 if required by the Engineer.
- B. Mix design shall be submitted to the Engineer for approval 5 working days before work is to begin.
- C. Acceptance of bituminous surface course with respect to gradation and bitumen content shall be based upon the average of the determinations made in a lot.
 - 1. A lot shall equal the amount of bituminous surface course placed in each production day.
 - 2. When a lot exceeds 1,000 tons, a minimum of three (3) samples shall be taken in each lot.
 - 3. When a lot is 1,000 tons or less, a minimum of two (2) samples shall be taken.
 - 4. Samples shall be taken at the time of lay-down of bituminous surface course and before compaction. Samples shall be taken from the mat behind the lay-down machine.
 - 5. Sampling shall be timed to represent the entire production day. The time of day, date of sample, station and offset location shall be clearly marked with the sample.
 - 6. If the average asphalt is less than 2.5% of optimal content, the Contractor may be required to lay an additional lift or slurry seal, based on the Engineer's recommendation.

2.08 COMPACTION TESTING OF BITUMINOUS SURFACE COURSE

- A. Laboratory tests to establish the maximum laboratory density of bituminous surface course shall be determined by the "Marshall Test" in accordance to ASTM D-1559.
- B. Samples to determine maximum laboratory density shall be taken at the time of lay-down of bituminous surface course and before compaction.
- C. Acceptance of bituminous surface course with respect to compaction shall be based upon the average determination of field density tests made in a lot.
 - 1. Field density tests shall be by a portable nuclear density testing device or by laboratory density analysis of core samples.
 - 2. A test lot shall be the quantity of surface course placed and compacted in each construction day.
 - 3. The test lot shall be subdivided into subplot(s) of approximately equal size and no larger than 1,600 square yards in area.
 - 4. One field density test shall be taken in each subplot, randomly located in the test lot by use of a suitable random number table.
- D. The test lot shall be accepted with respect to density when the average of all density determinations is not less than the density required by Section 02504.

E. Core Tests

1. Acceptance of the completed bituminous surface course with respect to thickness shall be based on the average thickness of a test lot.
 - a. A test lot shall equal approximately 4,000 square yards of completed roadway.
 - b. A lot shall be divided into sublots of approximately 2,000 square yards.
2. One thickness test, randomly selected by use of a random number table, shall be taken within each subplot. A minimum of three core tests will be taken.
3. A lot shall be accepted when the average thickness of all sublots is not less than 3/8 inch the total designated bituminous surface course thickness and when no individual subplot shows a deficient thickness of more than 1/2 inch.
4. Lots or sublots that are not acceptable because of deficient thickness shall be brought into compliance by placing additional surface course as directed by the Engineer.
4. The removed core will be replaced with low strength concrete.

2.09 SUMMARY TABLE OF TESTS AND CERTIFICATIONS

- A. The following is a summary of the tests, number of samples per test and certificates that are required for construction work and developments in City. This summary is provided as a reference guide. For details governing each item, refer to the appropriate test specification herein.

Test Subject	Specific Test	Number of Tests
Soil Classification	AASHTO M-145	1 test per test area of uniform soil type and 5 acres maximum.
Compaction of Soil & Base Course	Lab Density- AASHTO T-99 Method D or AASHTO T-180 Method D Embankment & Base Course Field Density- Portable Nuclear Equipment or AASHTO T-191	As needed to establish laboratory density 1 test plus minimum one test per 1,000 cu.yds.
	Backfill Field Density- Portable Nuclear Equipment or AASHTO T-191	1 test plus minimum one test per 200 cu.yds.
Base Course Gradation	Sieve Analysis- AASHTO T-27 Passing No. 200 Sieve- AASHTO T-11	1 test per 1,000 tons
Extraction-Gradation Test of Bituminous Surface Course	UDOT Test Procedure 8-946 & 8-947	3 tests per pavement construction day
Compaction of Bituminous Surface Course	Lab Density- Marshall Test, ASTM D-1559 Field Density- Portable Nuclear Equipment	1 test per pavement construction day 1 test per 1600 square yards subplot

Test Subject	Specific Test	Number of Tests
Core Tests	4" Core Sample	1 thickness test per 2,000 square yards or 3 test minimum
Concrete Test Cylinders	AASHTO T-23	3 cylinders per 50 cubic yards or minimum of 3 cylinders on placements less than 50 cubic yards
Pressure Reducing & Regulating Valves	Manufacturer's Certificate	1 for each valve
Gate Valve	Manufacturer's Certificate	1 for each valve over 12" diameter
Butterfly Valves	Manufacturer's Certificate	1 for each valve
Steel Re-Bar	Manufacturer's Certificate	1 for each 1,000 pounds of one grade
Structural Steel	Manufacturer's Certificate	1 for each lot of one shape, one grade
Corrugated Metal Pipe	Manufacturer's Certificate	1 for each 500 lineal feet of one size, one class
Polyvinyl Chloride Pipe	Manufacturer's Certificate	1 for each 500 lineal feet of one size, one class
A.B.S. Pipe	Manufacturer's Certificate	1 for each 500 lineal feet of one size, one class

END OF SECTION

SECTION 02250
SOIL COMPACTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Compaction control of native and imported backfill material.

1.02 REFERENCES

- A. AASHTO M 145: Recommended Practice for the Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes.
- B. AASHTO T-99: Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb (2.49-kg) Hammer and 12-In. (305-mm) Drop.
- C. AASHTO T-180: Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using a 10-lb (4.54-kg) Hammer and an 18-In. (457-mm) Drop.
- D. AASHTO T-238: Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

1.03 DEFINITIONS

- A. A-1 Soils: AASHTO M 145 describes the nature of these soils.
- B. Modified Proctor: The test method used for moisture-density relationship of soils as determined by the ASTM D 1557 test method.
- C. Percent Compaction or Percent Density: The ratio of the field dry density to the laboratory maximum dry density expressed as a percentage.
- D. Standard Proctor: The test method used for moisture-density relationship of soils as determined by the ASTM D 698 test method.

1.04 WARRANTY

- A. Correct deficient conditions. Replace or repair surfacing materials and damaged facilities.
- B. The method of construction repair shall be proposed in writing by Contractor for approval by Horrocks Engineers (Engineer) prior to correcting the failed condition.
- C. Failure to detect any defective work or material does not prevent later rejection of the work nor obligate the Engineer for final acceptance when such defective work or material is discovered.

PART 2 EXECUTION

2.01 COMPACTION REQUIREMENTS

- A. The Contractor shall be responsible to perform and pay for all testing of earth materials.

- B. Moisten or de-water backfill material to obtain optimum moisture for compaction compliance.
- C. The material shall be deposited in horizontal layers having a compacted thickness of no more than 3 inches for the trailway.
- D. The distribution of materials shall be such that the compacted material will be homogeneous and free from lenses, pockets, or other imperfections.
- E. The material shall have the optimum moisture content required for the purpose of compaction and the moisture content shall be uniform throughout the layer, insofar as practicable.
- F. Backfill shall be compacted by means of sheepsfoot rollers, pneumatic tire rollers, vibrating rollers, or other mechanical tampers of a size and type approved by the Engineer.
- G. If the required relative density is not attained, test sections will be required to determine any adjustments in compacting equipment, thickness of layers, moisture content and compactive effort necessary to attain the specified minimum relative density.
- H. Approval of equipment, thickness of layers, moisture content and compactive effort shall not be deemed to relieve the Contractor of the responsibility for attaining the specified minimum relative densities.
- I. The Contractor in planning his work shall allow sufficient time to perform the work connected with test sections and to permit the Engineer to make tests for relative densities.

2.02 FIELD QUALITY CONTROL

- A. Optimum Soil Density: Unless indicated otherwise.
 - 1. In accordance with AASHTO T-180 Method D test (Modified Proctor).

2.03 COMPACTION UNDER TRAILWAYS

- A. Fill material shall be compacted to not less than 95% of maximum dry density as measured by AASHTO T-180.
- B. Compaction of material shall extend to at least one foot each side of the edge of the trail.

END OF SECTION

SECTION 02504

ASPHALT CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This is a material specification for hot mix and cold mix bituminous paving mixtures.

1.02 REFERENCES

- A. AASHTO T-27: Standard Method for Sieve Analysis of Fine and Coarse Aggregate.
- B. AASHTO M-17: Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
- C. AASHTO T-165: Standard Test Method for Effect of Water on Cohesion of Compacted Bituminous Mixtures.
- D. AASHTO T-245: Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.
- E. AASHTO T-246: Standard Test Methods for Resistance to Deformation and Cohesion of Bituminous Mixtures by Means of Hveem Apparatus.
- F. AASHTO T-182: Standard Test Method for Coating and Stripping of Bitumen-Aggregate Mixtures.
- G. AASHTO M-156: Standard Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.
- H. ASTM D 4215: Standard Specification for Cold-Mixed, Cold-Laid Bituminous Paving Mixture.

1.03 DEFINITIONS

- A. Traffic Classifications:
 - 1. Class I: Parking lots, driveways, light traffic residential streets, light traffic farm roads.
 - 2. Class II: Residential streets, rural farm and residential roads.
 - 3. Class III: Urban minor collector streets, rural minor collector roads.
 - 4. Class IV: Urban minor arterial and light industrial and light industrial streets, rural major collector and minor arterial highways.
 - 5. Class V: Urban freeways, expressways and principal arterial highways, rural interstate and other principal arterial highways.

1.04 SUBMITTALS

- A. Mix Design: Submit each proposed mix design 14 days prior to use in the Work. Include in the report the following information.

1. Mix design method (Rice or Marshall).
 - a. For Marshall, use a five (5) point design.
 2. Job control target data for aggregate ideal grading.
 3. Permissible range limits of bitumen content in mixture.
 4. Mixture's index of retained strength, AASHTO T-165
 5. Additives. If none, state none are required.
 6. Percent voids.
- B. Source Aggregate Sample Report. Indicate rodded weight of aggregate, percentage of wear, weight loss, sand equivalent value, percent of fractured faces, amount of organic matter, plasticity of fines, and percentage of fines retained on the aggregate.
- C. Pre-Approved Mix Design Data: If supplier has on record, a City approved mix design, submit name and address of supplier for each mix design 3 days prior to using asphalt concrete mix.

1.05 QUALITY ASSURANCE

- A. Bitumen weights shall be determined by the mix design.
- B. Use asphalt cement when recycled asphalt mixtures are indicated.
- C. Do not change source of supply of paving asphalt or aggregate without Horrocks Engineers (Engineer) written approval.
- D. Each shipment of bituminous material shall be uniform in appearance and consistency with no foaming when heated to the specified mixing temperature.
- E. Do not use storage containers contaminated with other asphalt types or grades.
- F. Gradation, asphalt content, marshall density, and maximum density shall be determined by extraction tests.

PART 2 PRODUCTS

2.01 PAVING ASPHALT

- A. Provide type and grade indicated.
- B. The mix design shall target 3% voids. However, the percent asphalt or fines may need to be adjusted to achieve optimal strength.

2.02 AGGREGATES - MATERIALS

- A. Clean, hard, tough, durable and sound mineral aggregates that consist of crushed stone, crushed gravel, or crushed slag conforming to the following requirements:

1. Rodded Weight density; not less than 75 pounds per cubic foot.
 2. Percentage of wear of coarse aggregate retained on the No. 8 sieve; not exceeding 40 unless specific aggregates having higher values are know to be satisfactory.
 3. Weight loss; not exceeding 16 percent by weight when subject to 5 cycles of sodium sulfate.
 4. The combined aggregate after going through the dryer shall have a sand equivalent value of not less than 50 percent.
- B. Coarse Aggregate: Use an aggregate that the portion retained on the No. 4 sieve has not less than 50 percent of particles by weight with at least two mechanically fractured faces or clean angular faces.
- C. Fine Aggregate:
1. Fine aggregate passing the No. 4 sieve may be either a natural or manufacture product containing not more than 2 percent by weight of organic matter or other deleterious substances.
 2. Aggregate passing the No. 40 sieve is non-plastic.
 3. The weight of minus 200 mesh material retained in the aggregate, as determined by the difference in percent passing a No. 200 sieve by washing and dry sieving without washing, does not exceed 6 percent of the total sample weight.
- D. Mineral Filler: When mix design indicated need, add as a separate ingredient; AASHTO M-17.

2.03 AGGREGATES - MASTER GRADING BAND LIMITS

- A. Gradation D/M-1/2 will be used unless otherwise specified
- B. The following gradations describe the total percent passing by weight, AASHTO T-27, and is based on fine and coarse aggregate having approximately the same bulk specific gravities.

MASTER GRADING BAND LIMITS				
Sieve Size	DENSE MIXTURES			
	Type DM-3/4		Type DM-1/2	
	Min	Max	Min	Max
1"				
3/4"	100	----		
1/2"	----	----	100	----
3/8"	75	91	----	----
# 4	46	62	60	80
# 8	----	----	----	----
# 16	22	34	28	42
# 50	11	23	11	23
# 200	5	9	5	9

2.04 AGGREGATES - JOB-CONTROL GRADING BAND LIMITS

- A. The job control formula shall produce a smooth curve approximately paralleling the master grading band limits for the designated mix. If application of the tolerances results in a job control grading band outside the master grading band, the full job control tolerances shall apply. The following describes the job control grading bands.

JOB-CONTROL GRADING BAND LIMITS						
Sieve	Amount Passing Sieve, weight %					
Size	1 Test	2 Tests	3 Tests	4 Tests	5 Tests	
$\geq \frac{1}{2}$	± 10	± 7.3	± 6.3	± 5.6	± 5.2	
$\frac{3}{8}$	± 9	± 6.9	± 5.9	± 5.3	± 4.9	
No. 4	± 9	± 6.7	± 5.7	± 5.2	± 4.8	
No. 8	± 7	± 5.6	± 4.8	± 4.3	± 4.0	
No. 16	± 7	± 5.2	± 4.6	± 4.2	± 3.9	
No. 50	± 6	± 4.3	± 3.8	± 3.4	± 3.2	
No. 200	± 3	± 2.4	± 2.0	± 1.8	± 1.7	

2.05 MARSHALL MIX DESIGN

- A. The Marshall mix design shall be based upon AASHTO T-245, traffic classifications, and the following.

MARSHALL MIX DESIGN REQUIREMENTS							
	CLASS I		CLASS II & III		CLASS IV & V		
	Min	Max	Min	Max	Min	Max	
Number of Compaction Blows (each end of specimen)	35	34	50	50	75	75	
Stability, lb	1500	-----	1500	-----	1750	-----	
Flow, in 0.01 in. units	8	20	8	18	8	16	
% Air Voids,							
Surfacing and Leveling	3	5	3	5	3	5	
Base	3	8	3	8	3	8	
Unconfined Compression Strength Retention, % (AASHTO T-165)	65	-----	65	-----	65	-----	

- B. Compensate for specific gravity and absorption of aggregate to determine bitumen content by laboratory testing.

2.06 MIXING PLANT

- A. Hot-mixed, hot-laid paving mixtures; AASHTO M-156.

2.07 SOURCE QUALITY CONTROL

- A. Unconfined Compression Strength Retention: When crushed mineral aggregate which is thoroughly coated with bitumen has an index of retained strength less than 65 percent bring the strength into compliance by adding any of the following additives to the mix.
 - 1. Antistripping agent.
 - 2. Hydrated lime.
 - 3. Portland cement.
- B. Coating and Stripping of Bitumen-Aggregate Mixture: Immediately after mixing, the mixing shall meet the requirements of AASHTO T-182, whereby not more than 5 percent of the aggregate particles shall remain uncoated.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Plant Mix Bituminous Paving: In accordance with Section 02510.

END OF SECTION

SECTION 02510
ASPHALT PAVING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section covers the requirements for bituminous surface paving on trails.

PART 2 SUBMITTALS

- A. Contractor shall establish a mix gradation and the amount of bituminous material shall be submitted two (2) working days prior to surfacing for the approval by Horrocks Engineers (Engineer) and shall meet the requirements of the gradation selected.
- B. Test Reports: Submit test reports as requested by the Engineer verifying compliance with specified standards.

PART 3 EXECUTION

3.01 ALL STREETS SHALL BE SURFACED IN ACCORDANCE WITH THE FOLLOWING:

- A. 6-inch minimum untreated base course over prepared and approved subgrade.
- B. 3-inch minimum compacted thickness plant mix asphalt surfacing on all trails.
- C. 2-lift minimum for plant mix asphalt surfacing when final compacted pavement thickness is greater than 3 inches.

3.02 BASE COURSE

- A. Base for all streets shall consist of select material, as specified in Section 02206.
- B. Base shall be laid in accordance with Section 02225.
- C. Surfaces shall be true to the established grade with thickness being not less than 1/4 inch from the required layer thickness and with the surface elevation varying not more than 3/8 inch in ten feet from the true profile and cross section.

3.03 BITUMINOUS SURFACE COURSE

- A. Base coarse shall be free of any contamination prior to laying surface coarse.
- B. The surface course shall consist of a mixture of mineral aggregate and binder.
- C. Gradation of aggregate shall conform to Section 02504.
- D. Regardless of the bituminous content there shall be between 3% and 5% voids in the mix.

- E. The bituminous material for surface course shall be AC-5, AC-10 or AC-15 asphalt cement conforming to the requirements of ASTM D-445. 85-100 penetration asphalt cement conforming to the requirements of AASHTO M20-60 may be used when specifically approved by the Engineer.
- F. The Contractor shall apply a tack coat to all existing asphalt or concrete edges and surfaces that will be in contact with the new bituminous surface course.
 - 1. Tack coat shall be SS-1 or 1-H.
- G. The bituminous surface course shall be mixed at a mixing plant and spread and compacted on the prepared base in conformance with the lines and dimensions shown on the plans and in accordance with these Specifications.
- H. All existing asphalt shall be saw cut to remove fractures, cracked or damaged asphalt.
 - 1. Asphalt shall be saw cut in straight lines.

3.04 CONSTRUCTION METHODS AND EQUIPMENT

- A. All asphalt will be laid using a lay down machine unless with written approval by Engineer.
- B. The methods employed in performing the work, all equipment, tools and machinery and other appliances used in handling the materials and executing the work shall be the responsibility of the Contractor.
- C. The Contractor shall make such changes in the methods employed and in the equipment used as are necessary whenever the bituminous being produced does not meet the specification herein established.

3.05 SPREADING

- A. The bituminous mixtures shall be spread with self-propelled mechanical spreading and conditioning equipment capable of distributing at least a 12-foot width.
- B. The Engineer shall determine whether or not the bituminous surface course shall be spread in one or more courses.
- C. No surface course shall be placed less than 1 inch in thickness.
- D. The mixture shall be spread and struck off in such a manner that the finished surface shall result in a uniform smooth surface.
- E. The longitudinal joints in any succeeding courses shall be offset at least 6 inches transversely to avoid a vertical joint through more than one course.
- F. The temperature of the bituminous mix shall be between 250° F and 325° F when placing.

3.06 COMPACTION

- A. After the mixture has been spread, the surface shall be rolled in longitudinal direction commencing at the outside edge or lower side and preceding to the higher side.

- B. Each pass of the roller shall overlap the preceding pass at least one-half the width of the roller.
- C. Rolling shall continue until 95% of the laboratory density as determined in accordance with AASHTO Designation T-245 for the bituminous mixture being used has been obtained.
- D. Rolling operations shall be conducted in such a manner that shoving or distortion will not develop beneath the roller.
- E. Quality Control
 - 1. The surface of the pavement, after compaction, shall be uniform and true to the established crown and grade.
 - 2. When tested with a ten (10) foot straight edge placed parallel to the center line of the pavement, the surface of the pavement at any point shall not deviate from the lower edge of the straight edge by more than one-quarter of an inch.
 - 3. All high and low spots shall be remedied immediately by removing the wearing course material over the affected areas and replacing it with fresh, hot-wearing course and surface finish material and immediately compacting it to conform with surrounding area.
 - 4. The Developer/Contractor shall be responsible to test bituminous mixtures for compaction in accordance with Section 01450, TESTING AND PROCESS CONTROL.

3.07 WEATHER LIMITATIONS

- A. No bituminous surface shall be placed when the temperature of the air or road bed is 50° F or below, during rainy weather, when the base is wet or during other unfavorable weather conditions as determined the Engineer.
- B. The air temperature shall be measured in the shade.

3.08 FLAGGING

- A. Flaggers shall be required as directed to facilitate the safe control of traffic over highways and streets under construction at such locations as required and directed by the Horrocks.
- B. Flagging shall be performed by certified, trained, and properly equipped flaggers.
- C. All flagging shall be done as described in the Safety Orders covering flaggers of the Industrial Commission of Utah and in accordance with the MUTCD manual.

END OF SECTION

SECTION 02550

TRAILS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Trail construction requirements.

1.02 REFERENCES

- A. AASHTO T-27: Standard Method for Sieve Analysis of Fine and Coarse Aggregate.
- B. As per Section 02504
- C. As per Section 02510

1.03 DEFINITIONS

- A. Trail Classification:
 - 1. Eight foot Hard Surface
- B. Hard Surface: A surface which has been constructed of either Asphalt or Concrete.

1.04 SUBMITTALS

- A. As per Section 02504
- B. As per Section 02510

PART 2 PRODUCTS

2.01 PAVING ASPHALT

- A. Shall be ½-inch mix design

2.02 AGGREGATES - MATERIALS

- A. Shall be ¾-inch Untreated Base Course
- B. Sub-grade shall be stable during a Test Roll as determined in Section 01450 2.05.

2.05 ADA COMPLIANT

- A. Trail design should be ADA compliant where possible with a slope of less-than or equal to 5 percent. When the slope of the trail is above 5 percent all other requirements of an ADA trail should still be followed. Grades should follow the requirements of the following table. For all other design criteria (stopping distances, curve radii, intersections, etc.) refer to the AASHTO Guide for Development of Bicycle Facilities.

Grade	Limit on length at that Grade
<5%	None
5-6%	800-foot
6-7%	400-foot
7-8%	200-foot
8-9%	100-foot
9-10%	50-foot
>10%	0

PART 3 EXECUTION

3.01 INSTALLATION

- A. As per Section 02504
- B. As per Section 02510
- C. As per the current adopted Trail System Master Plan.

END OF SECTION

**WASATCH MOUNTAIN STATE PARK
GOLF COURSE IMPROVEMENTS
MEASUREMENTS AND PAYMENTS**

PART 1 GENERAL

- 1.1 The method of measurement and payment for the various items comprising the completed work follows: Payment for the items shall be compensation in full for the furnishing of all overhead, labor, material, tools, equipment, and appurtenances necessary to complete the work in a good, neat, and satisfactory manner as specified, with all connections, testing, cleanup, and related work completed. Each item shall be complete with all necessary connections and appurtenances for the satisfactory use and/or operation of said item. No additional payment will be made for work related to each item unless specifically noted or specified. Measurement will be in place in the completed work with no allowance for waste.

PART 2 COMPENSATION FOR ALTERED QUANTITIES

- 2.1 When the accepted quantities of work vary from the quantities in the engineer's estimate, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Contractor and subsequent loss of expected reimbursement therefore, or from any other cause.
- 2.2 The Engineer reserves the right to make at any time during the progress of the work, such increases or decreases in quantities and such alterations in the details of construction, and the elimination of one or more items as may be found necessary or desirable. Such alterations shall not be considered as a waiver of any conditions of the contract nor invalidate any of the provisions thereof nor release the surety. The Contractor agrees to accept the work as altered the same as if it had been a part of the original contract.

PART 3 MEASUREMENTS AND PAYMENT

ITEM 1: PULVERIZE EXISTING ASPHALT

Measurement and payment for this item will be per square yard of asphalt pulverized. Payment will be made at the unit price bid per square yard of asphalt pulverized. Such payment will be compensation for completely pulverizing each square yard of asphalt including all cost of removal of organic material, removal of debris, removal of foreign materials, removal of manmade materials, surface restoration, restoration of damaged signs to at/or better condition, disposal of excess pulverized asphalt off property, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 2: ASPHALT PAVEMENT (3" THICK)

Measurement and payment for this item will be per square feet of asphalt. Payment will be made at the unit price bid per square foot of asphalt. Such payment will be compensation for completely installing each square feet of asphalt complete in place including all cost of excavation, over excavation of unsuitable materials, supplying and placing asphalt 3 inches thick minimum at ½" above existing grade, compaction, testing, surface restoration, restoration of damaged signs to at/or better condition, disposal of excess asphalt off property, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 3: ASPHALT PAVEMENT (5" THICK)

Measurement and payment for this item will be per square feet of asphalt. Payment will be made at the unit price bid per square foot of asphalt. Such payment will be compensation for completely installing each square feet of asphalt complete in place including all cost of excavation, over excavation of unsuitable materials, supplying and placing asphalt 5 inches thick minimum, compaction, testing, surface restoration, restoration of damaged signs to at/or better condition, disposal of excess asphalt off property, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 4: INSTALL ROAD BASE (4" THICK)

Measurement and payment for this item will be per cubic yard of road base. Payment will be made at the unit price bid per cubic yard of road base. Such payment will be compensation for completely installing each cubic yard of road base complete in place including all cost of excavation, over excavation of unsuitable materials, supplying and placing 4" of untreated base course, compaction, compaction of sub-grade, testing, surface restoration, restoration of damaged signs to at/or better condition, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 5: INSTALL PULVERIZED ASPHALT AS BASE COURSE (4" THICK)

Measurement and payment for this item will be per cubic yard of pulverized asphalt. Payment will be made at the unit price bid per cubic yard of pulverized asphalt. Such payment will be compensation for completely installing each cubic yard of pulverized asphalt complete in place including all cost of excavation, over excavation of unsuitable materials, separation of foreign material in the pulverized asphalt, supplying and placing 4" of pulverized asphalt, compaction, compaction of sub-grade, testing, surface restoration, restoration of damaged signs to at/or better condition, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 6: REMOVE EXISTING TREE ROOTS (APPROXIMATELY 316 LENGTH OF TRAIL)

Measurement and payment for this item will be lump sum. Payment will be made at the unit price bid based on the percentage of the removal complete. Such payment will be compensation for removing tree roots necessary. Compensation will also include disposal of tree roots (off-site), surface restoration, landscape restoration, restoration of damaged signs to at/or better condition, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 7: SAWCUT EXISTING ASPHALT

Measurement and payment for this item will be for the linear feet of asphalt that is sawcut. Payment will be made at the unit price bid per linear foot. Such payment will be compensation in full for the sawcut complete in place including all cost of clearing, grubbing, stripping, excavation, removal of obstructions, tack coat material, surface restoration, restoration of damaged signs to at/or better condition, disposal of existing asphalt off property, and all appurtenances as specified or indicated in the *Wasatch Mountain State Park, Cart Path Improvements Standard Specifications, July 2009*.

ITEM 5: MOBILIZATION

Measurement and payment for mobilization will be paid as a lump sum payment based on the percentage of the job that is complete. The bid amount shall not exceed ten (10) percent of the contract amount. Furnish data and documentation to substantiate the amounts claimed under mobilization. Limit amounts included under mobilizations to the following items:

1. Moving on the site any equipment required for operations.
2. Developing construction water supply.
3. Providing on-site sanitary facilities and potable water facilities as specified.

4. Arrangement for/and erection of Contractor's work and storage yard.
5. Contractor and Subcontractor insurance and bonds.
6. Obtaining all required permits, licenses, and fees.
7. Developing construction schedule.
8. Construction Testing and Quality Control.
9. Public Relations
10. Notify residents of start time with flyers one week in advance of start of construction.
11. Final Cleanup

Wasatch Mountain State Park
Wasatch Mountain Golf Course
Cart Path Improvements

Scope of Work

General Requirements

1. Tree roots must be sheared off along the tree side of the path, full length, using a 4" wide trencher, shear plow, or 12" backhoe blade/bucket @ a depth of 18"
2. Pulverized areas to be 12" deep.
3. Roots must be removed from all pulverized areas before compaction.
4. Extreme care must be taken when accessing these areas.
5. A thickened edge (wedge) is required @ the ends of all path extensions.
6. Saw cut required where new asphalt meets old asphalt.

Mountain Course

Tee #2 (Priority 1)

1. Pulverize 308' x 8' of existing asphalt and install 3" of new asphalt.

Lake Course

Tee #7 (Priority #2)

1. Pulverize 218' x 8' of existing asphalt and install 3" of new asphalt.
2. Extend asphalt 82' x 8' x 3" with 4" of road base.

Tee #14 (Priority #3)

1. Pulverize 305' x 8' of existing asphalt and install 3" of new asphalt.
2. Extend asphalt 110' x 8' x 3" with 4" of road base.
3. Restroom extension – widen approach to 12', with 115' x 8' x 3" path with a 15' radius asphalt pad @ restroom.
4. The bridge between the 13th green and 14th tee box will need to be paved with 5" x 10' x 100' of asphalt. Pulverization/compaction of the existing paving/road base is required.

Tee #18 (Priority #4)

1. Pulverize 615' x 8' of existing asphalt and install new asphalt.
2. Extend asphalt 149' x 8' x 3" with 4" of road base. (54' one side/95' on other side)