

PROJECT MANUAL

FOR:

WASHTENAW COUNTY

REQUEST FOR PROPOSAL NO. 6637

PARKS AND RECREATION
PIERCE LAKE GOLF COURSE - PAVILION ADDITION
CHELSEA, MICHIGAN



Existing Picnic Pavilion at Pierce Lake Golf Course

DATE: SEPTEMBER 15, 2011

ARCHITECT:

**LINCOLN A. POLEY, ARCHITECT, AIA
234 NICKELS ARCADE
ANN ARBOR, MICHIGAN 48104**

**PHONE: 734.665.0211 FAX: 734.665.5722
Email address: lpoleyaia@ameritech.net**

PROJECT MANUAL - TABLE OF CONTENTS

RFP # 6637

09 15 11

- 1. TABLE OF CONTENTS
- 2. LIST OF DRAWINGS
- 3. REQUEST FOR PROPOSAL
- 4. PROPOSAL FORM SECTION 00300
- 5. INFORMATION FOR BIDDERS SECTION 00400
- 6. GENERAL CONDITIONS, SECTION 00500 And
- 7. "GENERAL CONDITIONS" OF THE CONTRACT FOR THE CONSTRUCTION OF BUILDINGS, A-201, 1997; A PART OF THIS PROJECT MANUAL.
- 8. SAMPLE AGREEMENT FORM – “WASHTENAW COUNTY SERVICE CONTRACT” (Sample Only)
- 9. PERFORMANCE BOND AND LABOR AND MATERIALS BOND SECTION B
- 10. MEMORANDUM OF UNDERSTANDING

DIVISION ONE -

- SECTION 01010- SUMMARY OF WORK
- SECTION 01045- CUTTING AND PATCHING
- SECTION 01100- SCHEDULE OF ALTERNATES
- SECTION 01200- PROJECT MEETINGS
- SECTION 01310- CONSTRUCTION SCHEDULES
- SECTION 01340- SHOP DRAWINGS, PRODUCT DATA AND SAMPLES
- SECTION 01370- SCHEDULE OF VALUES
- SECTION 01510- TEMPORARY UTILITIES
- SECTION 01705- PROJECT CLOSEOUT
- SECTION 01710- CLEANING
- SECTION 01720- PROJECT RECORD DOCUMENTS
- SECTION 01750- TESTING + INSPECTION

DIVISION TWO - (Also see additional specification information related to this Division on the drawings)

- SECTION 02070- DEMOLITION AND ALTERATION WORK
- SECTION 02220- BUILDING EXCAVATION AND FILL

DIVISION THREE through DIVISION SIXTEEN: (These Divisions are found on the drawings)

LIST OF DRAWINGS
SEPTEMBER 15, 2011

- T1.00 TITLE SHEET, INDEX TO DRAWINGS, GENERAL NOTES, SPECIFICATIONS +
SITE PLAN
- DRAWINGS OF EXISTING CONDITIONS
- EX1.0 EXISTING FOUNDATION PLAN + EXISTING FLOOR PLAN, AND EXISTING
EXTERIOR ELEVATIONS
- ARCHITECTURAL DRAWINGS
- A1.00 PROPOSED FOUNDATION PLAN + FLOOR PLAN
A2.00 PROPOSED ROOF FRAMING PLAN, BUILDING SECTION + STRUCTURAL NOTES
A3.00 PROPOSED EXTERIOR ELEVATIONS + BUILDING SECTION
A4.00 CONSTRUCTION DETAILS
- ELECTRICAL DRAWINGS
- E1.00 ELECTRICAL PLAN + ELECTRICAL SCHEDULE + ELECTRICAL NOTES
- BID ALTERNATE #1
- BA1.0 BID ALTERNATE #1, INCLUDING; PAVILION REFLECTED CEILING PLANS



WASHTENAW COUNTY FINANCE DEPARTMENT

Purchasing Division

P.O. Box 8645, 220 N. Main, Ann Arbor, MI 48107-8645
Phone (734) 222-6760, Fax (734) 222-6764

REQUEST FOR PROPOSAL NO. 6637

SEPTEMBER 15, 2011

Washtenaw County invites bids for the Pierce Lake Golf Course Pavilion Addition Project, 1175 S. Main Street, Chelsea, MI 48118.

The project consists of the following:

1. Construction of an open single story, slab-on-grade, wood frame pavilion structure addition of approximately 1000 square feet.
2. Some limited remodeling of the 1000 square foot existing picnic pavilion directly adjacent to the new addition.
3. A small amount of landscaping work required around the exterior of the new pavilion addition.

Owner seeks general contractor bids for this work.

Sealed Proposals: Contractor will deliver **three copies (3)**, the **original and two (2) copies**, to the following address:

Washtenaw County
Purchasing Division
220 N. Main St. Room B-35
P.O. Box 8645
Ann Arbor, MI 48107

BY 2:00PM ON TUESDAY, OCTOBER 4, 2011

The bid opening will be held in the Purchasing Department conference Room, B-19 of the Administration Building. Proposals received after the above cited time will be considered a late bid and are not acceptable unless waived by the Purchasing Manager.

A **MANDATORY pre-bid meeting** will be held at **3:00 pm, Thursday, September 22, 2011** at the Pierce Lake Golf Course Clubhouse.

Please use the attached self-addressed label or the envelope should be clearly marked "**SEALED RFP # 6637**"

Please direct purchasing and procedural questions regarding this RFP to Robert G. Devault at **734-222-6760** or devaultb@ewashtenaw.org.

Please direct technical project questions regarding this RFP to Lincoln Poley, AIA, Lincoln A. Poley, Architects, at 734-665-0211 or lpoleyaia@ameritech.net.

Plans and specifications may be secured on or after **2:00 p.m., Thursday, September 15, 2011**, from the Washtenaw County Purchasing Division, address above. Electronic copies of the Bid Documents may be obtained on-line at no charge at the Washtenaw County Purchasing Department website.

Thank you for your interest.

Robert Devault, CPM
Purchasing Manager

PROPOSAL FORM (SUBMIT IN "TRIPPLICATE")

PROPOSAL NUMBER: 6637

Proposal of _____ (hereinafter called "Bidder").

* A corporation organized and existing under laws of State of _____.

* Partnership consisting of _____.

* An individual trading as _____.

Submit to: **WASHTENAW COUNTY, PURCHASING DIVISION**
 ADMINISTRATION BUILDING, ROOM B-35
 220 NORTH MAIN STREET
 ANN ARBOR, MICHIGAN 48104

Gentlemen + Ladies:

Bidder, in compliance with your information for bids for construction and completion of the project, having examined drawings and specifications with related documents and location of proposed work and being familiar with all conditions surrounding construction of proposed project including availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct project in accordance with Contract Documents of which this proposal is a part.

Bidder acknowledges receipt of the following addenda:

Addendum No. _____ dated _____
Addendum No. _____ dated _____
Addendum No. _____ dated _____

Bidder hereby agrees to commence work under this contract within (bidder must enter a number in this space) _____ days after written "Notice to Proceed", and to fully complete project within (bidder must enter a number in this space) _____ consecutive calendar days.

LUMP SUM, BASE BID

In the following proposals, the amount shall be shown in both written form and figures. In case of discrepancy between written amount and figures, written amount will govern.

Perform all work as defined in the contract documents for the sum of: \$ _____.

(written form) _____.

Bidder understands that the Owner will not be liable for any amount in excess of the lump sum bid, except as expressly stated in written change orders duly executed and delivered by the Owner.

* Insert corporation, partnership or individual as applicable.

ALTERNATES

(The alternates are described in more detail in Section 01100, Schedule of Alternates, of the Project Manual)

The undersigned agrees to substitute, add or delete the work described below as alternates for the following deductions/additions in the base bid:

PROPOSAL FORM

PROPOSAL NUMBER: **6637**

BID ALTERNATE "1":

**** BID ALTERNATE (1): ADD** to the base bid the cost of providing and installing: "All work as described in the specifications and as shown on the drawings that is associated with the installation of **"A painted plywood and wood batten ceiling to both the new pavilion addition + to the existing picnic pavilion"**". Refer to the architectural drawings for this bid alternate. Sheet BA1.0

ADD to the cost of the base bid. This item is identified with "BID ALTERNATE 1", in the Schedule of Alternates, Section 01100.

ADD the sum of _____ dollars (\$_____)

WARRANTY

If awarded the Contract, The Bidder shall provide a Warranty for all work in the Contract for a period of one year beginning with the date of Substantial Completion (as defined in the Contract Documents).

IF A CORPORATION:

Incorporated under laws of State of _____

Licensed to do business in Michigan: Yes _____ No _____
(Check One)

(Name of Corporation)

By: _____
(Name and Title of Officer)

(Official Address)

PROPOSAL FORM

PROPOSAL NUMBER: **6637**

IF A PARTNERSHIP:

Partner: _____
(Name, City and State)

Partner : _____
(Name, City and State)

Partner: _____
(Name, City and State)

Name of Partnership: _____

(Official Address)

IF INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME:

City and State of Residence: _____
(City) (State)

(Signature of Individual)

Doing business under firm name and style of:

(Firm Name)

(Official Name)

PROPOSAL FORM

PROPOSAL NUMBER: **6637**

2. For all additional work authorized by the Architect and/or Owner and subcontracted by the Contractor, the undersigned agrees to charge a fee of _____percent of the subcontract price for management, overhead, and profit, not to exceed 10%.
3. For all additional work contracted for, by the Owner, and assigned to the Contractor for supervision and management, the undersigned hereby agrees to supervise and manage said work for a fee of _____percent of the contract price for same, not to exceed 10%.
4. For all revisions involving omission of contract work, it is agreed that full credit shall be given the Owner for work deleted including a fee of _____percent for profit.

It is further understood that the terms of this agreement relative to additional work obligates the undersigned (1) only for extra work ordered during the construction period and (2) only for extra work having an aggregate total cost of not more than (20%) percent of the total initial contract price.

BIDDER'S CERTIFICATE

The Bidder hereby certifies:

That this proposal is genuine and is not made in the interest of or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association or corporation;

That he has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal;

That he has not solicited or induced any person, firm or corporation to refrain from bidding; and

That he has not sought by collusion or otherwise to obtain for himself any advantage over any other bidder or over the Owner.

Bidder will not discriminate against any employee or applicant for employment because of race, creed, color or national origin in connection with the performance of the work.

INFORMATION FOR BIDDERS**Bidder's Representation:**

- A. Each bidder, by making his bid, represents that he has read and understands the bidding documents.
- B. Each bidder, by making his bid, represents that he has visited the site and familiarized himself with the local conditions under which the Work is to be performed.

Interpretation of Documents:

- A. If prospective bidder is in doubt as to true meaning of any part of Contract Documents, he must submit a written request to Architect for an interpretation thereof.
- B. Requests for such interpretations must be delivered to Architect at least 168 hours (7 days) prior to time for receipt of bids.
- C. Bids are to be based only on interpretations as issued in form of addenda mailed only to each person who is on Architect's record as receiving sets of Contract Documents.

Proposals:

- A. Proposals for work as indicated on drawings and as defined in specifications will be received.
- B. Sealed Proposals are to be delivered at the time, date and location stated in the Invitation for Bids.
- C. No bidder shall stipulate in his proposal any conditions not included in Proposal Form contained in Contract Documents.
- D. Bidder shall bid any and all alternates to portion of work covered by his base bid. Bidder agrees that his failure to fill in such spaces on his Proposal Form shall be interpreted that work covered by alternate may be incorporated in contract at no change in contract price at option of Owner. In case award of contract might depend upon Owner's selection of alternates, Bidder understands that Architect will recommend rejection of proposal of any bidder who fills in such spaces with such terms as "NB," "NO BID" or similar statements for any applicable alternate. Each proposal must be submitted on the prescribed form. All blank spaces for bid prices must be filled in ink or typewritten, in words, figures or both as indicated.
- E. Bidder's proposal price shall include all City, State and Federal sales, excise and similar taxes which may be lawfully assessed in connection with his performance of work and purchase of materials to be incorporated in work.
- F. Proposals must be submitted in duplicate on photocopies of Proposal Form included in the specification.

- G. Present proposals in sealed envelopes which must be clearly marked: **“PIERCE LAKE GOLF COURSE – PAVILION ADDITION – PROPOSAL # 6637”**. Bidder shall be responsible for actual delivery of bid prior to scheduled closing time for receipt of Proposals, and it shall not be sufficient to show that bid was mailed in time to be received before scheduled closing time for receipt of proposals.
- H. Telegrams, letters and other written requests for modification or correction of previously submitted proposal, which are addressed in same manner as proposal and are received by Owner prior to scheduled closing time for receipt of bids, will be accepted and proposal will be corrected in accordance with such written request with the following provisions:
1. Provided that any such written request is contained in sealed envelope which is plainly marked "Modification of Construction Proposal," followed by project name.
 2. Provided that, in case of telegraphic modification, Owner is satisfied that written confirmation of such telegraphic modification over signature of bidder was mailed prior to closing time. If such written confirmation is not received within two days from date of closing, no consideration will be given to telegraphic modification.
- I. Bidder may withdraw proposal at any time prior to scheduled closing time for receipt of proposals, but no bidder may withdraw proposal, after said closing time for a period of sixty (60) days.
- J. Owner reserves right to waive informalities in proposals and to reject any or all bids.
- K. Owner reserves right to require financial statement, previous experience, present commitments, and other such data from bidder. Statement will be treated as confidential by Owner. Statement: AIA Document A-305, "Contractor's Qualification Statement."

Proposal Security Requirements:

- A. Each proposal shall be accompanied by bid bond, certified check or cashier's check acceptable to, and payable without condition to Owner, in an amount at least equal to five percent (5%) of bidder's proposal, including additive alternates, if any.
- B. Proposal security is required as guarantee that bidder will enter into written contract within time and in form as set forth in Contract Documents, and if successful bidder fails to do so, proposal security will be realized upon or retained by Owner.
- C. If bond is given as proposal security, amount of bond may be stated as an amount equal to at least five percent (5%) of proposal, including additive alternates, if any. Proposal bond shall be executed by bidder and by duly qualified surety company.
- D. Proposal security of three lowest and best bidders will be retained by Owner until contract has been executed by the contracted bidder. Proposal security of other bidders will be returned to them within ten (10) days after Owner has determined three lowest and best bidders.
- E. It is specifically understood that guarantee above provided shall not be considered as liquidated damages for failure of bidder to execute and deliver contract, nor limit or fix bidder's liability to Owner for any damages sustained because of failure to execute and deliver required contract.

Submission of Post-Bid Information:

- A. Upon request by the Architect, the selected bidder shall within ten (10) days thereafter submit the following:
1. A statement of costs for each major item of work included in the bid.
 2. A designation of the work to be performed by the bidder with his own forces.
 3. A list of names of the subcontractors or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for such portions of the work as may be designated in the bidding documents or, if no portions are so designated, the names of the subcontractors proposed for the principal portions of the work. The bidder will be required to establish to the satisfaction of the Architect and the Owner the reliability and responsibility of the proposed subcontractors to furnish and perform the work described in the sections of the specifications pertaining to such proposed subcontractors' representative trades. Prior to the award of the contract, the Architect will notify the bidder in writing if either the Owner or the Architect, after due investigation, has reasonable and substantial objection to any person or organization on such list. If the Owner or Architect has reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the bidder may at his option, withdraw his bid without forfeiture of bid security. If the bidder submits an acceptable substitute with an increase in his bid price to cover the difference in cost occasioned by such substitution, the Owner may, at his discretion, accept the increased bid price or he may disqualify the bidder. Subcontractors and other persons and organizations proposed by the bidder and accepted by the Owner and the Architect must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the Owner and the Architect.
 4. Proposed construction schedule identifying the major work items, their estimated starting and completion dates in bar graph form.

Award of Contract:

- A. Bidders agree that work will be let as single contract to Bidder, and Performance and Labor and Materials Payment Bonds will be required.
- B. In awarding contract, Owner may take into consideration skill, facilities, capacity, experience, ability, responsibility, previous work, financial standing of bidder, amount of other work being carried on by bidder; quality, efficiency and construction of equipment proposed to be furnished, period of time within which equipment is proposed, furnished and delivered; and necessity of prompt and efficient completion of work herein described. Inability of any bidder to meet requirements mentioned above may be cause for rejection of his bid.

Form and Execution of Contract and Performance and Labor and Material Payment Bonds:

- A. Form of contract to be executed is Washtenaw County's standard "SERVICE CONTRACT" (SAMPLE COPY enclosed) and may also be seen in the OWNER'S office. A copy is included for reference.

- B. Owner will prepare and forward to the successful bidder required copies of the Contract. Bidder shall return properly executed prescribed copies of Contract, bonds and insurance certificate to the Owner within five days after their receipt. Work will be let as single contract to successful bidder. Construction time will be computed from date of signing of contract.
- C. The Contractor shall furnish Performance and Labor and Material Payment Bonds in an amount of at least equal to one hundred percent (100%) of the contract price as security for faithful performance of contract and for payment of all persons performing labor and furnishing materials in connection therewith under contract. Surety on such bonds shall be a duly authorized surety company as approved by Owner.
- D. No proposal shall be considered as being binding upon Owner until written contract has been properly executed and satisfactory Bonds have been furnished. Failure to execute and return contract and satisfactory Bonds within prescribed period of time shall be cause of annulment of award at option of Owner; in event of annulment of award, bid security of bidder will be realized upon or retained by Owner.

Time of Completion:

- A. Bidders must agree to commence work on date to be specified by Owner in written "Notice to Proceed" and to fully complete project within the time stated in contract. Construction time will be computed from date of signing of contract.

Project Layout:

- A. It shall be the responsibility of the Contractor to provide all instrumental surveying required to layout and construct the work. The Owner shall have access to the work at all times to verify the project layout.

Proposal Terms:

- A. The Owner (**Washtenaw County**, Ann Arbor, Michigan) reserves the right to reject any and all proposals received as a result of bidding. If a proposal is selected it will be the most advantageous regarding price, quality of service, the Contractors qualifications and capabilities to provide the specified service, and other factors which Washtenaw County may consider. The Owner does not intend to award a contract fully on the basis of any response made to the proposal; Washtenaw County reserves the right to consider proposals for modifications at any time before a contract would be awarded, and negotiations would be undertaken with that contractor whose proposal is deemed to best meet the Owner's specifications and needs.
- B. In the event it becomes necessary to revise any part of the RFP, addenda will be provided. Deadlines for submission of Proposals may be adjusted to allow for revisions. To be considered, original proposal must be at the location of submission as noted on the bid form on or before the date and time specified.
- C. No erasures are permitted on Proposal Forms. Mistakes may be crossed out and corrected and must be initialed in ink by the person **signing** the proposal.
- D. The price quotations stated in the bidder's proposal will not be subject to any price increase from the date on which the proposal is opened by the Owner (Washtenaw County) to the mutually agreed-to date of contract.

SECTION 00500

GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS

General Notes:

All bidders shall be subject to the conditions set forth in the document known as the "General Conditions" of the Contract for the Construction of Buildings as published by the American Institute of Architects, Form A-201 of 1997, and consisting of pages 1 - 44 inclusive, with current revisions, a copy of which is included in the Project Manual and a copy is also on file in the office of the Architect and is available to any person.

Contract Documents:

The documents upon which this Contract is based shall consist of the above-mentioned General Conditions of the Contract, Specification of the Work, including Instructions to Bidders and Drawings. It shall be the duty of the Owner and the Contractor to inform themselves of the requirements of the said documents for any part of the work or materials before signing the agreement. In case changes in work or materials from those outlined in said documents are desired, such changes adding or deducting from this work must be stipulated in writing and attached to and made a part of the agreements.

Intent of Documents and Correlation:

This specification and the accompanying drawings are intended to describe and include everything required and necessary to the proper and entire finishing of each branch or trade of work mentioned. They are intended to be cooperative and what is called for by either is as binding as if called for in both (drawings and specifications).

The Contractor shall not avail himself of any manifestly unintentional error or omission, should such exist. Should any error or inconsistency occur or appear in the drawings or specifications, the Contractor shall mention the same for proper adjustment before proceeding with the work and, in no case, shall he proceed with the work in uncertainty.

Permits, Regulations and Taxes:

The Contractor shall obtain all permits and licenses, and shall give all notices, pay all fees and comply with all laws, ordinances, rules and regulations bearing on the work. If any of the work of the Contractor is done contrary to such laws, ordinances, rules and regulations without such notice, he shall bear all costs arising therefrom. The Owner has a tax exemption number, however, all materials should be figured inclusive of taxes to the Owner.

The Contractor shall present at the pre-job start meeting evidence of all required permits. The Contractor is advised that timely inspections by the Washtenaw County Building Department are a requirement of this contract and are a condition of progress and final payments. All inspections will be final and a Certificate of Occupancy, where applicable, will be required before final payment will be made.

Materials, Labor and Appliances:

Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work.

All materials shall be new and workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials. All materials which are affected by moisture shall be protected from such.

The Contractor shall employ only persons who are skilled in the work to be performed.

Examination of Existing Facilities:

The Contractor shall be responsible for examining the existing conditions in order to gain full information under which the work is to be carried out. The Contractor shall also compare the existing conditions with the plans and specifications. Failure of the Contractor to inform himself will in no way relieve him from the necessity to complete the work as contemplated by the plans and specifications without additional cost to the Owner.

Protection of Work and Property:

The Contractor shall continuously protect all existing facilities and new work as it is completed. He shall be responsible for making good any damage or injury.

Dimensions and Field Measurement:

The Contractor shall be responsible for making field measurements before proceeding to complete the work. If the dimensions shown on the plan are incorrect, the Contractor shall advise the Architect before proceeding with the work.

Substitutions and Alterations:

Proposals are to be based upon the brands, makes, and standards of materials specified, unless substitutions are authorized by the Architect. Each bidder shall state in his proposal the names of substitutions which he proposes to use if approved and the amount which is to be added or deducted from the proposal.

Selection of Items by Owner:

Where the Owner has the option to select materials, color, finish, etc., it is understood and agreed that the Architect will make such selection or decision within a reasonable time after being requested by the Contractor to do so.

Changes in Work:

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to, or deducting from the work, the Contract sum being adjusted accordingly. Such work shall be executed under the conditions of the original Contract, except that any claims for extension of time caused thereby shall be adjusted at the time of ordering such changes.

Payments:

It is necessary that progress payments be made during construction. The Contractor shall furnish a release of materials and work completed to date. Payments will be made for ninety percent (90%) of the work in place and material on the site at the time of "Application for Payment".

Contractor's Application for Payment must be accompanied by written confirmation that all required permits and licenses have been obtained by the Contractor and that all required inspections have been made as of the date of application. Failure to furnish such written confirmation may result in the Contractor's Application for Payment being denied and funds withheld until such written confirmation is submitted to the Owner.

Indemnification and Insurance:

The Contractor shall protect, defend and indemnify Washtenaw County, its officers, agents, servants, volunteers and employees from any and all liabilities, claims, liens, demands and costs, of whatsoever kind and nature which may result in injury or death to any persons, and for loss or damage to any property, including property owner or in the care, custody or control of Washtenaw County in connection with or in any way incident to or arising out of the occupancy, use, service, operations, performance or non-performance of work in connection with this Agreement resulting in whole or in part from negligent acts or omissions of contractor, subcontractor, or any employee, agent or representative of the contractor or any subcontractor.

The Contractor shall maintain at his expense during the term of this contract, the following insurance.

1. Workers' Compensation Insurance with Michigan statutory limits and Employers' Liability Insurance with a minimum limit of \$100,000 each accident for any employee.
2. Comprehensive/Commercial General Liability Insurance with a combined single limit of \$1,000,000 each occurrence for bodily injury and property damage. The County shall be added as "additional insured" on general liability policy with respect to the services provided under this contract.
3. Automobile Liability Insurance covering all owned, hired and non-owned vehicles with Personal Protection Insurance and Property Protection Insurance to comply with the provisions of the Michigan No-Fault Insurance Law, including residual liability insurance with a minimum combined single limit of \$1,000,000 each accident for bodily injury and property damage.

An umbrella policy may be used to meet some of the above requirements.

All insurance policies shall be issued by well rated companies authorized to do business in the State of Michigan acceptable to the Owner.

The Contractor shall be responsible for payment of all deductibles contained in any insurance required in this contract.

If any required coverages are written on a "claims made" form, the Contractor agrees to maintain such coverages for at least three years after completion of the contracted services.

The certificate of insurance must show the contractor as named insured or as specifically insured under a master policy issued to a parent or affiliated company.

All insurance policies must be issued by companies licensed to do business in Michigan or approved to do business in Michigan and such companies must be well rated and acceptable to the County Administrator.

The Contractor shall be responsible for payment of all deductibles contained in any insurance required of the Contractor in this contract.

Contractor shall furnish certificates of insurance issued to the Washtenaw County Parks and Recreation Commission, P.O. Box 8645, Ann Arbor, Michigan 48107, evidencing such coverage and endorsements at least ten (10) working days prior to commencement of services under this contract. Certificate shall provide for thirty (30) day written notice of cancellation of coverage.

No payments shall be made to the Contractor until the certificates of insurance have been received and approved by the County. If the insurance, as evidenced by certificates furnished by the Contractor, expires or is canceled during the term of the contract, services and related payments will be suspended until certificates evidencing renewal of coverage are submitted and approved.

If the required insurance coverage is not maintained at any time during the term of this contract, the contract shall be subject to cancellation immediately or at any time thereafter, at the sole election of County. If the insurance coverage described in the required certificate of insurance expires without evidence of renewed coverage being submitted to the County, this contract shall be subject to cancellation immediately or at any time thereafter, at the sole election of the County. If the county elects to exercise their option to cancel on these grounds, the County shall so notify the Contractor of their election.

Additional Insurance to be Used as Applicable:

Where work involves digging, the Comprehensive General Liability policy shall include coverage for property damage from perils of explosion, collapse or damage to underground utilities (referred to as XCU coverage).

Liens:

The Owner may elect to withhold the final payment or any retained percentage due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this Contract and an affidavit that so far as he had knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner, to indemnify him against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and reasonable attorney's fees.

Correction of the Work:

Neither the final certificate for payment, nor any provision in the Contract Documents shall relieve the Contractor of responsibility for defects in workmanship or faulty materials. The Contractor shall correct any defects due to faulty work or materials and pay for the damage to other work resulting therefrom, which shall appear within a period of one year from the date of completion, unless otherwise stated in this document. The Owner shall notify the Contractor of observed defects with reasonable promptness.

Time of Completion:

Bidders must agree to commence work on date to be specified by Owner in written "Notice to Proceed" and to fully complete project within the time stated in Contract. Construction time will be computed from date of signing of contract. The County intends to provide successful bidder notice of award by October 12, 2011, and "strongly" desires total completion by May 1, 2012 (weather permitting). Agreed upon completion date shall be considered as "essential condition" of contract but there is no formal "liquidated" damages clause.

Fee for Additions To and Deductions From the Work:

The undersigned agrees to perform all additional work ordered by the Architect and/or Owner (1) on an actual cost basis plus a percentage of said cost for overhead and profit; (2) on an approved lump sum basis based upon estimated cost plus a percentage for overhead and profit, or (3) on a unit price basis plus a percentage for overhead and profit. It is further agreed that said actual cost or estimated cost shall be determined on basis of contractor's payroll cost for labor, and contractor's price less discounts for equipment, materials, services, and subcontract work involved; and that said mark-up percentage and unit prices shall be as stated hereinafter. Selection of method will be determined by Owner and Architect.

1. For all additional work authorized by Architect and/or Owner and performed by the Contractor's own forces, the undersigned agrees to charge a fee of ___percent of the actual or estimated costs as defined above, for overhead and profit, not to exceed 15%.
2. For all additional work authorized by the Architect and/or Owner and subcontracted by the Contractor, the undersigned agrees to charge a fee of ___percent of the subcontract price for management, overhead, and profit, not to exceed 10%.
3. For all additional work contracted for, by the Owner, and assigned to the Contractor for supervision and management, the undersigned hereby agrees to supervise and manage said work for a fee of ___percent of the contract price for same, not to exceed 10%.
4. For all revisions involving omission of contract work, it is agreed that full credit shall be given the Owner for work deleted including a fee of ___percent for profit.

It is further understood that the terms of this agreement relative to additional work obligates the undersigned (1) only for extra work ordered during the construction period and (2) only for extra work having an aggregate total cost of not more than (20%) percent of the total initial contract price.

Payroll Taxes and Indemnification Agreement:

A. The Contractor assumes responsibility for all applicable state and federal social security

benefits and unemployment taxes and agrees to indemnify and protect Owner against such liability.

- B. The Contractor will protect, defend and indemnify Washtenaw County, its officers, agents, servants, volunteers and employees from any and all liabilities, claims, liens, demands and costs or whatsoever kind and nature which may result in injury; or death to any persons, and for loss or damage to any property owned or in the care, custody or control of Washtenaw County in connection with or in any way incident to or arising out of the occupancy, use, service, operations, performance, or non-performance or work in connection with this contract arising in whole or in part from negligent acts or omissions of the Contractor, any sub-contractor, supplier, any employee, agent or representative of the Contractor or any sub-contractor.

Interest of Contractor and County:

- A. The Contractor promises that it has no interest and will not acquire any interest which would conflict with the performance of services required by this contract. The Contractor also promises that, in the performance of this contract, no person having a conflicting interest will be employed. In addition, no officer, agent, employee of the County of Washtenaw or member of its governing bodies may participate in any decision relating to this contract which affects his/her personal interest or the interest of any corporation, partnership or association in which he/she is directly or indirectly interested or has any personal or pecuniary interest.

Golf Course Clubhouse Facility Hours:

- A. The golf course clubhouse facility (at Pierce Lake) will remain open for business during the duration of the golf season and again starting in April, 2012 for the 2012 golfing season. The normal employee operating hours shall remain in effect. The Contractor shall ensure that there is proper access provided at all times for all County employees and for the Owner's operating and maintenance crews to function uninterrupted during the course of the construction project.

Fees and Permits:

ALL FEES AND PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR. This responsibility includes filing of all permit applications, paying all associated fees, and coordinating any and all inspections related to the various permits.

Federal Requirements:

See attached exhibits.

SERVICE CONTRACT
NAME OF CONTRACTOR

AGREEMENT is made this _____ day of _____, 2011, by the COUNTY OF WASHTENAW, a municipal corporation, with offices located in the County Administration Building, 220 North Main Street, Ann Arbor, Michigan 48107("County") and **CONTRACTOR** located at **XYZ STREET, ANYWHERE, USA 99999** ("Contractor").

In consideration of the promises below, the parties mutually agree as follows:

ARTICLE I - SCOPE OF SERVICES

The Contractor will provide construction services for per Washtenaw County Formal Bid #XXXX. The Contractor will furnish all labor, materials, tools, equipment, transportation or other facilities and services necessary to perform and complete the project in accordance with Contract Documents.

ARTICLE II - COMPENSATION

Upon completion of the above services and submission of invoices the County will pay the Contractor, for full performance of the work, the amount of **SPELL OUT DOLLAR AMOUNT (\$ XXX,XXX)**, subject to additions and deductions as documented through authorized change orders. The County shall make monthly progress payments to the Contractor on the basis of work performed and material suitably stored onsite during the preceding month of the Contract. To insure proper performance of the Contract, the County shall retain ten percent (10%) of the value of the work until final completion and acceptance of all work covered in the Contract.

ARTICLE III - REPORTING OF CONTRACTOR

Section 1 - The Contractor is to report to the Director of the Washtenaw County Parks and Recreation Commission and will cooperate and confer with him/her as necessary to insure satisfactory work progress.

Section 2 - All reports, estimates, memoranda and documents submitted by the Contractor must be dated and bear the Contractor's name.

Section 3 - All reports made in connection with these services are subject to review and final approval by the County Administrator.

Section 4 - The County may review and inspect the Contractor's activities during the term of this contract.

Section 5 - When applicable, the Contractor will submit a final, written report to the County Administrator.

Section 6 - After reasonable notice to the Contractor, the County may review any of the Contractor's internal records, reports, or insurance policies.

ARTICLE IV - TERM

This contract begins on **XX/XX/XX** and ends on **XX/XX/XX** according to the project essential completion schedule unless subsequently modified through authorized change orders.

ARTICLE V - PERSONNEL

Section 1 – The contractor will provide the required services and will not subcontract or assign the services without the County’s written approval.

Section 2 - The Contractor will not hire any County employee for any of the required services without the County’s written approval.

Section 3 - The parties agree that the Contractor is neither an employee nor an agent of the County for any purpose.

Section 4 - The parties agree that all work done under this contract shall be completed in the United States and that none of the work will be partially or fully completed by either an offshore subcontractor or offshore business interest either owned or affiliated with the contractor. For purposes of this contract, the term, “offshore” refers to any area outside the contiguous United States, Alaska or Hawaii.

ARTICLE VI - INDEMNIFICATION AGREEMENT

The contractor will protect, defend and indemnify Washtenaw County, its officers, agents, servants, volunteers and employees from any and all liabilities, claims, liens, fines, demands and costs, including legal fees, of whatsoever kind and nature which may result in injury or death to any persons, including the Contractor’s own employees, and for loss or damage to any property, including property owned or in the care, custody or control of Washtenaw County in connection with or in any way incident to or arising out of the occupancy, use, service, operations, performance or non-performance of work in connection with this contract resulting in whole or in part from negligent acts or omissions of contractor, any sub-contractor, or any employee, agent or representative of the contractor or any sub-contractor.

ARTICLE VII - INSURANCE REQUIREMENTS

The Contractor will maintain at its own expense during the term of this Contract, the following insurance:

1. Workers' Compensation Insurance with Michigan statutory limits and Employers Liability Insurance with a minimum limit of \$100,000 each accident for any employee.
2. Commercial General Liability Insurance with a combined single limit of \$1,000,000 each occurrence for bodily injury and property damage. The County shall be added as "additional insured" on general liability policy with respect to the services provided under this contract.
3. Automobile Liability Insurance covering all owned, hired and nonowned vehicles with Personal Protection Insurance and Property Protection Insurance to comply with the provisions of the Michigan No Fault Insurance Law, including residual liability insurance with a minimum combined single limit of \$1,000,000 each accident for bodily injury and property damage.

Insurance companies, named insureds and policy forms may be subject to the approval of the Washtenaw County Administrator, if requested by the County Administrator. Such approval shall not be unreasonably withheld. Insurance policies shall not contain endorsements or policy conditions which reduce coverage provided to Washtenaw County. Contractor shall be responsible to Washtenaw County or

insurance companies insuring Washtenaw County for all costs resulting from both financially unsound insurance companies selected by Contractor and their inadequate insurance coverage. Contractor shall furnish the Washtenaw County Administrator with satisfactory certificates of insurance or a certified copy of the policy, if requested by the County Administrator.

No payments will be made to the Contractor until the current certificates of insurance have been received and approved by the Administrator. If the insurance as evidenced by the certificates furnished by the Contractor expires or is canceled during the term of the contract, services and related payments will be suspended. Contractor shall furnish the County Administrator's Office with certification of insurance evidencing such coverage and endorsements at least ten (10) working days prior to commencement of services under this contract. Certificates shall be addressed to Washtenaw County c/o: Washtenaw County Parks & Recreation Commission & CR# _____, P. O. Box 8645, Ann Arbor, MI, 48107, and shall provide for 30 day written notice to the Certificate holder of cancellation of coverage.

ARTICLE VIII - COMPLIANCE WITH LAWS AND REGULATIONS

The Contractor will comply with all federal, state and local regulations, including but not limited to all applicable OSHA/MIOSHA requirements and the Americans with Disabilities Act.

ARTICLE IX - INTEREST OF CONTRACTOR AND COUNTY

The Contractor promises that it has no interest which would conflict with the performance of services required by this contract. The Contractor also promises that, in the performance of this contract, no officer, agent, employee of the County of Washtenaw, or member of its governing bodies, may participate in any decision relating to this contract which affects his/her personal interest or the interest of any corporation, partnership or association in which he/she is directly or indirectly interested or has any personal or pecuniary interest. However, this paragraph does not apply if there has been compliance with the provisions of Section 3 of Act No. 317 of the Public Acts of 1968 and/or Section 30 of Act No. 156 of Public Acts of 1851, as amended by Act No. 51 of the Public Acts of 1978, whichever is applicable.

ARTICLE X - CONTINGENT FEES

The Contractor promises that it has not employed or retained any company or person, other than bona fide employees working solely for the Contractor, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than bona fide employees working solely for the Contractor, any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or making of this contract. For breach of this promise, the County may cancel this contract without liability or, at its discretion, deduct the full amount of the fee, commission, percentage, brokerage fee, gift or contingent fee from the compensation due the Contractor.

ARTICLE XI - EQUAL EMPLOYMENT OPPORTUNITY

The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, sexual orientation, national origin, physical handicap, age, height, weight, marital status, veteran status, religion and political belief (except as it relates to a bona fide occupational qualification reasonably necessary to the normal operation of the business).

The Contractor will take affirmative action to eliminate discrimination based on sex, race, or a handicap in the hiring of applicant and the treatment of employees. Affirmative action will include, but not be limited to: Employment; upgrading, demotion or transfer; recruitment advertisement; layoff or termination; rates of pay or other forms of compensation; selection for training, including apprenticeship.

The Contractor agrees to post notices containing this policy against discrimination in conspicuous places available to applicants for employment and employees. All solicitations or advertisements for employees, placed by or on the behalf of the Contractor, will state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, sexual orientation, national origin, physical handicap, age, height, weight, marital status, veteran status, religion and political belief.

ARTICLE XII - PREVAILING WAGE RATES & CUB AGREEMENT

The Contractor agrees that all craftsmen, mechanics and laborers it employs to work on this project shall, at a minimum, receive the prevailing wages and fringe benefits of the Building Trade Department for corresponding classes of craftsmen, mechanics and laborers for the Washtenaw County area, as determined and published by the Davis-Bacon Division of the United States Department of Labor. Contractor agrees that all subcontracts entered into by the Contractor shall contain a similar provision covering any sub-contractor's employees who perform work on this project. Contractor further agrees to sign a project labor agreement as provided by the Construction Unity Board ("CUB Agreement"). (At its September 7, 2011 Ways & Means Committee meeting, the Washtenaw County Board of Commissioners approved a Resolution which suspends the Construction Unity Board ("CUB") requirement from future County bid specifications and contracts pending the outcome of federal litigation challenging the legality of Michigan's recently enacted P.A. 98 of 2011. The Resolution will go to the Board meeting on September 21, 2011 for final approval. Should it be approved, the CUB requirement in this bid shall be removed and replaced with prevailing wage language.)

ARTICLE XIII - EQUAL ACCESS

The Contractor shall provide the services set forth in Article I without discrimination on the basis of race, color, religion, national origin, sex, sexual orientation, marital status, physical handicap, or age.

ARTICLE XIV - OWNERSHIP OF DOCUMENTS AND PUBLICATION

All documents developed as a result of this contract will be freely available to the public. None may be copyrighted by the Contractor. During the performance of the services, the Contractor will be responsible for any loss of or damage to the documents while they are in its possession and must restore the loss or damage at its expense. Any use of the information and results of this contract by the Contractor must reference the project sponsorship by the County. Any publication of the information or results must be co-authored by the County.

ARTICLE XV - ASSIGNS AND SUCCESSORS

This contract is binding on the County and the Contractor, their successors and assigns. Neither the County nor the Contractor will assign or transfer its interest in this contract without the written consent of the other.

ARTICLE XVI - TERMINATION OF CONTRACT

Section 1 - Termination without cause. Either party may terminate the contract by giving thirty (30) days written notice to the other party.

ARTICLE XVII - PAYROLL TAXES

The Contractor is responsible for all applicable state and federal social security benefits and unemployment taxes and agrees to indemnify and protect the County against such liability.

ARTICLE XVIII - PRACTICE AND ETHICS

The parties will conform to the code of ethics of their respective national professional associations.

ARTICLE XIX- CHANGES IN SCOPE OR SCHEDULE OF SERVICES

Changes mutually agreed upon by the County and the Contractor, will be incorporated into this contract by written amendments signed by both parties.

ARTICLE XX - CHOICE OF LAW AND FORUM

This contract is to be interpreted by the laws of Michigan. The parties agree that the proper forum for litigation arising out of this contract is in Washtenaw County, Michigan.

ARTICLE XXI - EXTENT OF CONTRACT

This contract represents the entire agreement between the parties and supersedes all prior representations, negotiations or agreements whether written or oral.

ARTICLE XXII – ELECTRONIC SIGNATURES

All parties to this contract agree that either electronic or handwritten signatures are acceptable to execute this agreement.

ATTESTED TO:

WASHTENAW COUNTY

By: _____ (DATE)
Lawrence Kestenbaum
County Clerk/Register

By: _____ (DATE)
Robert L. Tetens
Director, Parks & Recreation

APPROVED AS TO FORM:

CONTRACTOR

By: _____ (DATE)
Curtis N. Hedger
Office of Corporation Counsel

By: _____ (DATE)
CONTRACTOR

PERFORMANCE BOND

_____ as Principal, hereinafter called the CONTRACTOR, and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are firmly bound unto

WASHTENAW COUNTY PARKS AND RECREATION COMMISSION

As obligee, hereinafter referred to as "OWNER", in the amount of

_____ Dollars (\$_____)
(Amount shall be shown in both words and figures. In case of discrepancy, amount shown in words shall govern).

for the payment whereof the CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The CONTRACTOR has entered a written contract with the OWNER dated _____, for the construction of

RFP #6637 PIERCE LAKE GOLF COURSE – PAVILION ADDITION

This bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.

Whenever the CONTRACTOR is declared by the OWNER to be in default under the contract, the Surety may promptly remedy the default or shall promptly:

- (a) complete the contract in accordance with its terms and conditions; or
- (b) obtain a bid or bids for submission to the OWNER for completing the contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a contract between such bidder and the OWNER, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.

Surety shall have no obligation to the OWNER if the CONTRACTOR fully and promptly performs under the contract.

PERFORMANCE BOND page 2

Surety agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed there under, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives 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.

SIGNED AND SEALED this _____ day of _____, 20__.

In the Presence of:

WITNESS

(fill in contractor's name)

Principal

Title

WITNESS

Surety

Title

Address of Surety

City Zip Code

LABOR AND MATERIAL PAYMENT BOND

_____ as Principal, (hereinafter called the CONTRACTOR), and _____, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are firmly bound unto

WASHTENAW COUNTY PARKS AND RECREATION COMMISSION

As obligee, hereinafter referred to as "OWNER", in the amount of

_____ Dollars (\$_____)
(Amount shall be shown in both words and figures. In case of discrepancy, amount shown in words shall govern).

for the payment whereof the CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The CONTRACTOR has entered a written contract with the OWNER dated _____, for the construction of

RFP #6637 PIERCE LAKE GOLF COURSE – PAVILION ADDITION

This bond is given for that contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.

If the CONTRACTOR fails to promptly and fully repay claimants for labor and material reasonably required under the contract, the Surety shall pay those claimants.

LABOR AND MATERIAL PAYMENT BOND page 2

Surety's obligations shall not exceed the amount stated in the second paragraph above, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

SIGNED AND SEALED this _____ day of _____, 2011.

In the Presence of:

WITNESS

(fill in contractor's name)

Principal

Title

WITNESS

Surety

Title

Address of Surety

City

Zip Code

MEMORANDUM OF UNDERSTANDING

1. WORK DISPUTES

In return for the promise made in paragraph (3) below, the parties agree that there will be no strike, work stoppage or lock-out for the duration of this Memorandum. Any jurisdictional dispute shall be resolved through normal procedures.

There will be a job conference with all contractors and sub-contractors prior to starting work.

2. COFFEE BREAKS

There shall be no organized coffee breaks.

3. PAYMENT OF FRINGES

Any Union having a claim against a contractor or subcontractor for unpaid wages and/or fringe benefits for work performed on the project shall give written notice of such claim to such contractor or subcontractor (with a copy of the notice to the Construction Manager or General Contractor) within three (3) business days after such claim has become known. Upon receipt of such written notice, the Construction Manager or General Contractor involved shall withhold an amount equal to the claim from the next disbursement payable to the contractor, pending resolution of the dispute satisfactory to the Construction Manager or General Contractor. In the event of any such dispute, the Union agrees to use its best efforts to pursue any legal remedies available, including litigation by Fund Trustees. It is understood that the intent to this section is to accomplish prompt and effective resolution of any disputes between the Union and any contractor or subcontractor over payment of wages and fringes.

4. UNION WORK

The parties understand and agree that each contractor and subcontractor at all tiers of this project shall, prior to beginning work on the project, become signatory parties to the respective current collective bargaining agreements of the appropriate Local Unions of the Washtenaw County Skilled Building Trades Council.

(Contractor, Owner or Construction Manager)

(Representative of Washtenaw County Skilled
Building Trades Council)

(Project Description)

(Date)

THIS MEMORANDUM APPLIES ONLY TO THE PROJECT AND/OR CONSTRUCTION ABOVE DESCRIBED.

WHITE – Union Copy
GREEN – Contractor or Construction Manager Copy
CANARY – Owner Copy
PINK – CUB Copy
GOLD – Project Copy

SECTION 01010 – SUMMARY OF WORK1.00 GENERAL1.01 WORK TO BE PERFORMED UNDER THIS CONTRACT

- A. The work of this contract comprises the furnishing of all labor and materials and all work for the new Addition to the Pierce Lake Golf Course Pavilion, at 1175 S. Main Street, Chelsea, Michigan 48118, as indicated on the drawings and as specified herein.
- B. Related requirements in other parts of the Project Manual:
1. General Conditions of the Contract for Construction.
 2. Supplementary Conditions.
 3. Instructions to Bidders.

1.02 WORK NOT INCLUDED IN THIS CONTRACT

The furnishing and installation of the following items are not included in this contract:

1. Items noted "NIC" on drawings.
2. Items noted in the specifications as "not included in the contract."

1.03 CONTRACTS

Construct the work under a single fixed-price contract. MICHIGAN SALES OR USE TAX IS applicable on material and/or equipment which is affixed to, and made a structural part of the real estate under this contract.

1.04 QUALITY ASSURANCE

A. Existing grounds and buildings:

This project involves the construction of a new golf course pavilion addition and associated remodeling to the existing pavilion and all site work and demolition as required for the project. Carefully respect the existing buildings and grounds.

1. All truck traffic to stay off of existing sidewalks and grounds.
2. Park all work vehicles in designated areas
3. All damaged materials must be repaired by Contractor.
4. Do not remove or replace existing site features unless specifically indicated on the Drawings or directed by the Architect.

B. Materials and Equipment:

1. All materials and equipment delivered to and used in the work shall be suitably stored and protected from the elements. The areas used for storage shall only be those approved by the Owner. The Owner assumes no responsibility for stored material. The ownership and title to materials will not be vested in the Owner before materials are incorporated in the Work. After delivery, before and after installation, the Contractor shall protect materials and equipment against theft, injury or damage from all causes.
2. Bulk materials subject to deterioration because of dampness, the weather or contamination shall be covered and protected while in storage. Materials in containers shall be kept in original sealed containers, unopened, with labels plainly indicating manufacturer's name, brand, type and grade of material. Containers which are broken, opened, watermarked and/or contain caked, lumpy or otherwise damaged materials are unacceptable and shall be immediately removed from the Work site.

C. Qualifications:

1. This project involves the limited demolition associated with remodeling and adding to the existing golf course pavilion building, adding an equal sized addition and related excavation for the building and (electric) utilities; possible relocation of utilities and site work. The Contractor and all subcontractors shall have prior experience in this type of work.
2. All work shall be executed only by artisans and mechanics qualified through experience in their respective trades; only persons of such qualifications will be permitted to perform the work involved.
3. To assure the proper performance of this operation, the work in this and related sections shall be done under a qualified supervisor experienced in this type of work.

D. Measurements:

Contractor shall set his own work according to the drawings and his own measurements reporting to the Architect immediately if any discrepancies are found.

1.05 CONTRACTOR'S USE OF PREMISES

A. Contractor shall limit his use of the premises for work and for storage, to allow for:

1. Work by other contractors.
2. Continued occupancy of non-contract areas by the Owner.

B. Coordinate use of premises so as not to interfere with the Owner's use and security of the overall facility.

C. Assume full responsibility for the protection and safekeeping of products stored on the site under this contract.

D. Move any stored products, under Contractor's control, which interfere with operations of the facility or separate contractor.

E. Store products in areas designated on the drawings or as designated by the Owner.

F. Provide covered and enclosed storage required for protection and storage of materials subject to damage. Provide in such manner as to afford proper safeguard and protection, and in an approved manner. Location shall be approved by the Owner.

G. Protect non-contract areas against damage from construction operations.

H. During the construction period the Contractor shall have full use of the building site for construction operations, including use of the immediate site. As required, the Contractor's use of the premises is limited only by the Owner's right to perform work or to retain other Contractors on portions of the Project.

I. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.

1. Driveways and Entrances: Keep driveways, parking lot and entrances serving the Pierce Lake Golf Course and Park clear and available to the owner, the Owner's employees, the public and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

2. Site areas beyond building construction may not be disturbed.
3. Contractor shall avoid any unnecessary disturbance of site vegetation in constructing the building.

1.06 PROJECT SCOPE:

- A. SCOPE OF WORK – The work under this contract includes, but is not limited to the following work:

The project consists of a single story addition (approximately 1,000 square feet), wood frame structure with slab-on-grade concrete pad and wood truss roof structure. The project requires of the contractor the selective demolition and minor upgrading of the existing picnic pavilion (approximately 1,000 square feet).

The contractor shall furnish all labor, material, equipment and general conditions necessary to complete: Demolition, site preparation; excavation, grading, clearing and grubbing; soil erosion and sedimentation control for the duration of the project; stripping and stockpiling of topsoil; spreading topsoil and fine grading around the building addition; trenching, installation and backfilling for electrical utilities as required, concrete pads, and limited upgrading/remodeling of the existing picnic pavilion building and construction of the new picnic pavilion addition, etc.

The existing paved driveways, parking lots, etc. must be protected and restored to original condition at project completion. Any and all damaged pavement to be removed and replaced by the Contractor.

END OF SECTION 01010

SECTION 01045 - CUTTING AND PATCHING1.00 GENERAL1.01 DESCRIPTION OF REQUIREMENTS

- A. "Cutting-and-Patching" is hereby defined to include, but is not necessarily limited to, the cutting and patching of nominally completed, in order to accommodate the coordination of work, or the installation of other work, or to uncover other work for access or inspection, or to obtain samples for testing, or for similar purposes; and is defined to exclude integral cutting-and-patching during the manufacturing, fabricating, erecting and installing process for individual units of work. Drilling the work to install fasteners and similar operations are excluded from the definition of cutting and patching.
1. Alteration work as specified for existing work in order to accomplish revisions or to accommodate new work is specified separately, and may require cutting-and-patching but is not specified primarily as cutting-and-patching work.
 2. Restoring or removing and replacing non-complying work is specified separately from cutting-and-patching, but may require cutting-and-patching operations as specified herein.
- B. Refer to other sections of these Specifications for specific cutting-and-patching requirements and limitations applicable to individual units of work.

1.02 QUALITY ASSURANCE

A. Requirements for Structural Work:

1. Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Prior to cutting-and-patching the following categories of work, obtain Architect's/Engineer's approval to proceed with cutting-and-patching as proposed in submittal by Contractor.
 - a. Miscellaneous structural metals, including lintels, equipment supports and similar categories of work.
 - b. Bearing walls.

B. Operational and Safety Limitations:

1. Do not cut-and-patch operational elements and safety related components in a manner resulting in a reduction of capacities to perform in the manner intended, including energy performances, or resulting in decreased operational life, increased maintenance, or decreased safety.
2. Prior to cutting-and-patching the following categories of work and similar categories where directed, obtain Architect's/Engineer's approval to proceed with cutting-and-patching as proposed in submittal by Contractor:
 - a. Primary operational systems and equipment.
 - b. Control, communication, conveying, and electrical wiring systems.

C. Visual Requirements:

1. Do not cut-and-patch work which is exposed in occupied spaces of the building in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of cut-and-patch work, both as judged solely by the Architect. Remove and replace work judged by the Architect to be cut-and-patched in a visually unsatisfactory manner.
2. Engage recognized expert entities to perform cutting-and-patching of the following categories of exposed work:
 - a. Masonry.
 - b. Woodwork.

1.03 SUBMITTALS

A. Proposals for Cutting-and-Patching:

1. Where prior approval of cutting-and-patching is required, submit proposal well in advance of time work will be performed, and request approval to proceed. Include description of why cutting-and-patching cannot (reasonably) be avoided, how it will be performed, products to be used, firms and tradesmen to perform the work, approximate dates of the work, and anticipated results in terms of variations from work as originally completed (structural, operational, visual and other qualities of significance). Where applicable, include cost proposal, suggested alternatives to cutting-and-patching procedure proposed, and a description of circumstances which lead to need for cutting-and-patching.
2. Where cutting-and-patching of structural work involves the addition of reinforcement, submit details and engineering calculations to show how that reinforcement is integrated with original structure to satisfy requirements.
3. Approval by Architect/Engineer to proceed with proposed cutting-and-patching does not waive right to later require complete removal and replacement of work found to be cut-and-patched in an unsatisfactory manner.

2.00 PRODUCTS

2.01 MATERIALS

- A. Provide materials for cutting-and-patching which will result in equal or better work than work being cut-and-patched, in terms of performance characteristics and including visual effects where applicable. Comply with requirements, and use materials identical with original materials where feasible and where recognized that satisfactory results can be produced thereby.

3.00 EXECUTION

3.01 PREPARATION

- A. Temporary Support: Provide adequate temporary support for work to be cut to prevent any form of structural failure. Do not endanger other work.
- B. Protection: Provide adequate protection of the work during cutting-and-patching, to prevent damage; and provide protection of the work from adverse weather exposure.

3.02 CUTTING AND PATCHING

- A. Employ skilled tradesmen to perform cutting-and-patching. Except as otherwise indicated or approved by Architect, proceed with cutting-and-patching at earliest feasible time in each instance, and complete work without delay.
- B. Cut work by methods least likely to damage work to be retained and work adjoining. Review proposed procedure with original installer where possible, and comply with recommendations therefrom. In general, where physical cutting action is required, cut work with sawing and grinding tools, not with hammering and chopping tools. Core drill openings through concrete work.
- C. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work. Where feasible, inspect and test patched areas to demonstrate integrity of work.
- D. Restore exposed finishes of patched areas; and, where necessary, extend finish restoration onto retained work adjoining in a manner which will eliminate evidence of patching and refinishing. Coordinate seams with control joints or other material or shape transitions, as approved by the Architect.

END OF SECTION 01045

SECTION 01100 - SCHEDULE OF ALTERNATES1.00 **GENERAL**1.01 **DESCRIPTION OF REQUIREMENTS**

Definitions and explanations:

1. "Alternates" are defined as alternate products, materials, equipment, systems, methods, units of work or major elements of the construction, which may, at Owner's option and under terms established by Instructions to Bidders and in the Contract of Agreement, be selected for the work in lieu of corresponding requirements of the Contract Documents. Selection may occur prior to Contract Date, or may, by the Agreement, be deferred for possible selection at a subsequent date. Alternates may or may not change scope and general character of the work substantially. Requirements of this Section may be related to, but must not be confused with, requirements of Contract Documents related to "allowances", "unit prices", "change orders", "substitutions", and similar provisions.
2. Refer to the Contract of "Owner-Contractor Agreement", and subsequent modifications thereof (if any), for determination of which several scheduled "alternates" herein have been accepted, and therefore are in full force and effect as though included originally in the Contract Documents for the base bid.

Immediately following award of Contract, prepare and distribute to each entity to be involved in performance of the work, a notification. Indicate which alternates have been: 1) accepted, 2) rejected, and 3) deferred for consideration at a later date as indicated. Include full description of negotiated modifications to alternates, if any.

1.02 **GENERAL ALTERNATE REQUIREMENTS**

General: The description herein for each alternate is recognized to be incomplete and abbreviated, but implies that each change must be complete for the scope of work affected. Refer to applicable specification sections (Divisions Two through Sixteen), and to applicable drawings, for specific requirements of the work, regardless of whether references are so noted in description of each alternate. Coordinate related work and modify surrounding work as required to properly integrate with the work of each alternate. It is recognized that descriptions of alternates are primarily scope definitions, and do not necessarily detail full range of materials and processes needed to complete the work required.

1.03 **SCHEDULE OF ALTERNATES: **BID ALTERNATE "1":****

A. State the amount to be ADDED TO the base bid for providing and installing:

BID ALTERNATE (1): ADD to the base bid the cost of providing and installing: "All work as described in the specifications and as shown on the drawings that is associated with the installation of **"A painted plywood and wood batten ceiling to both the new pavilion addition + to the existing picnic pavilion"**". Refer to the architectural drawings for this bid alternate. **Sheet BA1.0**

END OF SECTION 01100 – SCHEDULE OF ALTERNATES

SECTION 01200 - PROJECT MEETINGS1.01 GENERAL

- A. The Contractor shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout the progress of work.
 - 1. Prepare agenda for meetings.
 - 2. Distribute written notice of each meeting four days in advance of meeting date.
 - 3. Make physical arrangements for meetings.
 - 4. Preside at meetings.
 - 5. Record the minutes, include all significant proceedings and decisions.
 - 6. Reproduce and distribute copies of minutes within three days after each meeting.
 - a. To all participants in the meeting.
 - b. To all parties affected by decisions made at the meeting.
- B. Representatives of contractors, sub-contractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. Architect will attend meetings to ascertain that work is expedited consistent with Contract Documents and the construction schedules.

1.02 PRE-CONSTRUCTION MEETING

- A. Schedule within seven days after award of Contract.
- B. Location: Project site.
- C. Attendance:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
 - 4. Major Sub-contractors.
 - 5. Major Suppliers.
 - 6. Others as appropriate.
- D. Suggested agenda:
 - 1. Distribution and discussion of:
 - a. List of major sub-contractors and suppliers.
 - b. Projected construction schedules.
 - 2. Project coordination:
 - a. Designation of responsible personnel.
 - 3. Procedures and processing of:

- a. Field decisions.
 - b. Proposal requests.
 - c. Submittals.
 - d. Change orders.
 - e. Applications for payment.
4. Adequacy of distribution of Contract Documents.
 5. Use of premises:
 - a. Office, work, and storage areas.
 6. Temporary utilities.
 7. Safety and first-aid procedures.
 8. Security procedures.
 9. Housekeeping procedures.
 10. Construction facilities controls, and aids.
 11. Review project requirements (Drawings and Project Manual).
 12. Review special requirements of the work (precautions and protection of work).

1.03 PROGRESS MEETINGS

- A. Schedule bi-weekly meetings for project coordination. The Contractor shall set regular time and day for duration of project meetings.
- B. Hold special meetings as progress of the Work demands.
- C. Location: Project field office of the Contractor, or in the Golf Course Clubhouse.
- D. Attendance:
 1. Architect.
 2. Owner (Owner's Representative)
 3. Sub-contractors as appropriate to the agenda.
 4. Suppliers as appropriate to the agenda.
 - S. Contractor.
 6. Others as appropriate.
- E. Suggested Agendum:
 1. Review and approve minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Field observations, problems, conflicts.
 4. Problems which impede Construction Schedule.
 5. Review of off-site fabrication, delivery schedules.
 6. Corrective measures and procedures to regain projected schedule.
 7. Revisions to Construction Schedule.
 8. Plan progress and work schedule for succeeding work period.
 9. Coordination of schedules.
 10. Review submittal schedules, expedite as required.
 11. Maintenance of quality standards.

12. Review proposed changes for effect on construction schedule and on completion date.
13. Other business.

END OF SECTION 01200

SECTION 01310 - CONSTRUCTION SCHEDULES1.01 GENERAL

- A. Promptly after award of the Contract, the Contractor shall prepare and submit to the Architect estimated construction progress schedules for the Work.
- B. Submit revised progress schedules periodically (MONTHLY AT JOB PROGRESS MEETINGS).
- C. Related requirements are included in the General Conditions of the Contract for Construction.
- D. Related requirements specified elsewhere in the Project Manual:
 - 1. Summary of Work: Section 01010.
 - 2. Project Meetings: Section 01200
 - 3. Shop Drawings, Product Data, and Samples: Section 01340.

1.02 FORM AND CONTENT OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade or operation.
 - 2. Horizontal time scale: Identify the first work day of each week.
 - 3. Scale and spacing: To allow space for notations and future revisions.
 - 4. Minimum sheet size 8 1/2" x 14", used horizontally.
- B. Format of listings:
 - 1. Identify listings by specification section numbers.
 - 2. Arrange in order of the Table of Contents of this Project Manual.
- C. Show the dates for the beginning of and completion of each major element of construction.
- D. Specifically list each area of work as broken down in the Table of Contents of this Project Manual.

1.03 SUBMISSION

- A. Submit schedule within seven days after award of Contract.
 - 1. Architect will review schedules and return review copy within seven days after receipt.
 - 2. If required, resubmit within seven days after the return of review copy.

1.04 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1. Sub-contractors.
 - 2. Other concerned parties.
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the construction schedules.

END OF SECTION 01310

SECTION 01340 - SHOP DRAWINGS, PRODUCT DATA AND SAMPLES1.01 GENERAL

- A. Submit Shop Drawings, Product Data and Samples required by the Contract Documents.
- B. Related requirements are included in the General Conditions of the Contract for Construction.

1.02 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
- B. Details shall be identified by reference to sheet and detail, schedule, or room names (numbers) shown on Contract Drawings.

1.03 PRODUCT DATA

- A. Preparation:
 - 1. Clearly mark each copy to identify pertinent products or models.
 - 2. Show:
 - a. Performance characteristics and capacities.
 - b. Dimensions and clearances required.
 - c. Wiring or piping diagrams and controls.
- B. Manufacturers' standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams to delete information which is not applicable to the work.
 - 2. Supplement standard information to provide information specifically applicable to the work.

1.04 SAMPLES

- A. Office samples shall be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
- B. Field Samples and Mock-Ups:
 - 1. Contractor shall erect, at the Project site, at a location acceptable to the Architect.
 - 2. Size or area: That specified in the respective specification section.
 - 3. Fabricate each sample and mock-up complete and finished.
 - 4. Remove mock-ups at conclusion of work or when acceptable to the Architect.

1.05 CONTRACTOR RESPONSIBILITIES

- A. Review Shop Drawings, Product Data and Samples prior to submission.
- B. Determine and Verify:
 - 1. Field measurements.
 - 2. Field construction criteria.
 - 3. Catalog numbers and similar data.
 - 4. Conformance with specifications.
- C. Coordinate each submittal with requirements of the work and of the Contract Documents.
- D. Notify the Architect in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.
- E. Begin no fabrication or work which requires submittals until return of submittals with Architect's approval.

1.06 SUBMISSION REQUIREMENTS

- A. Make submittals promptly and in such sequence as to cause no delay in the Work or in the work of any other contractor.
- B. Number of submittals required:
 - 1. Shop Drawings: Submit the number of opaque reproductions which the Contractor requires, plus two copies which will be retained by the architect. Minimum of six sets.
 - 2. Product Data: Submit the number of copies which the Contractor requires, plus two which will be retained by the Architect.
 - 3. Samples: Submit the number stated in each specification section (minimum of 2).
- C. Submittals Shall Contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title.
 - 3. The names of:
 - a. Contractor.
 - b. Supplier.
 - c. Manufacturer.
 - 4. Identification to adjacent or critical features of the work or materials.
 - 5. Field dimensions, clearly identified as such.
 - 6. Relation to adjacent or critical features of the work or materials.
 - 7. Applicable standards, such as American Society of Testing Materials or Federal Specification numbers.
 - 8. Identification of deviations from Contract Documents.
 - 9. Identification of revisions on re-submittals.

10. Space for Contractor and Architect stamps and/or notes.
11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents.

1.07 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the architect and resubmit until approved:
 1. Shop Drawings and Product Data:
 - a. Revise initial drawings or data, and resubmit as specified in the initial submittal.
 - b. Indicate any changes which have been made other than those requested by the Architect.
 2. Samples: Submit new samples as required for initial submittal.

1.08 DISTRIBUTION

- A. Distribute reproductions of shop drawings and copies of product data which carry the Architect's stamp, or note of approval to affected sub-contractors, suppliers, or fabricators, and other parties.

1.09 ARCHITECT'S DUTIES

- A. Review submittals with reasonable promptness.
- B. Affix signature or initials, and indicate requirements for re-submittal, or approval of submittal.
- C. Return submittals to Contractor for distribution, or for resubmission.

1.10 MAINTENANCE SCHEDULES

- A. Prior to final payment submit to Owner, two copies, and Architect, one copy of maintenance schedules for all equipment installed in this Contract.
- B. Include:
 1. Guarantees and/or warranties.
 2. Operating instructions.
 3. Maintenance procedures and schedules.
 4. Equipment representative's name, address and phone number.

END OF SECTION 01340

SECTION 01370 - SCHEDULE OF VALUES1.01 GENERAL

- A. Submit to the Architect a Schedule of Values allocated to the various portions of the Work, within ten days after award of contract.
- B. Upon request of the Architect, support the values with data which will substantiate their correctness.
- C. Related requirements are included in the General Conditions of the Contract for Construction.

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on 8 1/2" x 11" white paper or on Contractor's standard forms.
- B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow the Table of Contents of this Project Manual as the format for listing component items. Identify each line item with the number and title of the respective major section of the specifications.
- D. For each major line item list sub-values of major products or operations under the item.
- E. For the various portions of the Work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials, delivered and unloaded.
 - b. The total installed value.
- F. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.03 FUNCTION

- A. The schedule of values shall be used by the contractor when submitting applications for payment on the Project. The use of this schedule dictates accuracy for proper analysis of project completion and contractor payment for percentage of work completed.

END OF SECTION 01370

SECTION 01510 - TEMPORARY UTILITIES AND CONSTRUCTION FACILITIES1.01 GENERAL

- A. Description: Furnish, install and maintain temporary utilities required for construction, and remove upon completion of the work.
- B. Requirements of Regulatory Agencies:
 - 1. Comply with National Electric Code portion of State Construction Code (1972 PA 230).
 - 2. Comply with state codes and regulations and with utility company requirements.

1.02 PRODUCTS

- A. Materials, General: Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.
- B. Temporary Electricity and Lighting:
 - 1. Provide temporary electrical power and meter, size to provide service required for power and lighting and contractors operation of power tools and equipment.
 - 2. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout the construction by the use of construction-type power cords.
 - 3. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.
- C. Temporary Heat and Ventilation: (if required by the Contractor)
 - 1. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the work, to meet specified minimum conditions for the installation of materials, and to protect materials and finishes from damage due to temperature or humidity.
 - 2. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gasses.
 - 3. Portable heaters, if used, shall be standard approved units complete with controls. Pay all costs of installation, maintenance, operation and removal, and for fuel consumed by portable heaters.
 - 4. Pay all costs of installation, maintenance, operation and removal.
 - 5. Contractor shall supply own fuel.
- D. Temporary Telephone Services: (if required by the Contractor)
 - 1. Arrange with local telephone service company, provide direct line telephone service at the construction site for the use of personnel and employees.
 - 2. Pay all costs for installation, maintenance and removal.
- E. Temporary Water: (may be provided by the Owner, if the Contractor requires water)

1. Provide temporary water for construction purposes.
2. Provide adequate means to shut off water at area of use so that water does not run continually when not needed.

F. Temporary Sanitary Facilities:

1. Provide sanitary facilities in compliance with laws and regulations. (portable unit)
2. Service, clean and maintain facilities and enclosures.
3. Owners' existing facilities are not to be used by construction workers.

G. Trailer/ Construction Office: (if required by the Contractor)

1. The Contractor shall supply his own construction field office at the project site. The field office may be housed in a trailer that is located in an owner approved portion of the site.

1.03 EXECUTION

A. General:

1. Comply with applicable requirements specified in Division 15 - Mechanical (refer to Specifications on Drawings), and in Division 16 - Electrical.
2. Maintain and operate systems to assure continuous service.
3. Modify and extend systems as work progress requires.

B. Removal:

1. Completely remove temporary materials and equipment when their use is no longer required.
2. Clean and repair damage caused by temporary installations or use of temporary facilities.
3. Restore existing facilities used for temporary services to specified, or to original, condition.

1.04 BARRIERS

- A. The Contractor shall furnish, install and maintain as long as necessary and remove when no longer required adequate barriers, warning signs or lights at all dangerous points throughout the Work for protection of property, workmen and the public. The Contractor shall hold the Owner harmless from damage, or claims, arising out of any injury or damage that may have been sustained by any person or persons as a result of the Work under the Contract.
- B. The Contractor shall erect a fence around the construction site to control access to the work area and to marshal stored materials. The fenced area shall provide a barrier to the general public from ready access to the work site. This fence shall be installed to provide an adequate safeguard to the public from hazards that may be encountered at the site.

END OF SECTION 01510

SECTION 01705 - PROJECT CLOSEOUT1.00 GENERAL1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division I Specification sections, apply to work of this section.

1.02 DESCRIPTION OF REQUIREMENTS

- A. Definitions: "Closeout" is hereby defined to include general requirements near end of contract time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Divisions 2 through 16. Time of closeout is directly related to "Substantial Completion," and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.03 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: Prior to requesting Architect's inspection for certification of substantial completion (for either entire work or portions thereof), complete the following and list known exceptions in request:
 - 1. In progress payment request, coincident with or on first following date claimed, show either 100% completion for portion of work claimed "substantially completed," or list incomplete items, value of incompleteness, and reasons for being incomplete.
 - 2. Include supporting documentation for completion as indicated in these Contract Documents.
 - 3. Submit statement showing accounting of changes to the contract sum.
 - 4. Advise Owner of pending insurance change-over requirements.
 - 5. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
 - 6. Obtain and submit releases enabling Owner's full and unrestricted use of the work and access to services and utilities, including (where required) occupancy permits, operating certificates and similar releases.
 - 7. Submit record drawings, maintenance manuals, final project photographs, damage or settlement survey, property survey, and similar final record information.
 - 8. Deliver tools, spare parts, extra stocks of materials, and similar physical items to Owner.
 - 9. Make final change-over of locks, transmit keys to Owner and advise Owner of changeover in security provisions. (Not Required)
 - 10. Complete start-up testing of systems and provide instructions to Owner. Discontinue (or change over) and remove from project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.
 - 11. Complete final cleaning up requirements, including touch-up of painting of marred surfaces.

12. Touch-up and otherwise repair and restore marred exposed finishes.

- B. Inspection Procedures: Upon receipt of Contractor's request, Architect and Owner will either proceed with inspection or advise Contractor of prerequisites not fulfilled. Following initial inspection, Architect will either prepare certificate of substantial completion, or advise Contractor of work which must be performed prior to issuance of said certificate, inspection will be repeated when requested and when Architect is assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance.

1.04 PREREQUISITES TO FINAL ACCEPTANCE

- A. General: Prior to requesting Architect's and Owner's final inspection for certification of final acceptance and final payment, as required by General Conditions, complete the following and list known exceptions (if any) in request:
1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 2. Submit updated final statement, accounting for additional (final) changes to contract sum.
 3. Submit certified copy of Architect's final "punch-list" of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed and dated by Architect.
 4. Submit final meter readings for utilities, measured record of stored fuel, and similar data as of time of substantial completion or when Owner took possession of and responsibility for corresponding elements of the work.
 5. Submit consent of surety.
 6. Submit final liquidated damages settlement statement, acceptable to Owner. (If liquidated damages clause is in the contract).
 7. Revise and submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Re-inspection Procedure: Upon receipt of Contractor's notice that the work has been completed, including punch-list items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, Architect and Owner will re-inspect the work. Upon completion of re-inspection, Architect will either prepare certificate of final acceptance or advise Contractor of work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated.

1.05 RECORD DOCUMENT SUBMITTALS

- A. General: Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in "Submittals" sections. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for Architect's reference during normal working hours.
- B. Record Drawings: Maintain a white-print set (blue-line or black-line) of contract drawings and shop drawings in clean, undamaged condition, with mark-up of actual

installations which vary substantially from the work as originally shown. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings. Mark with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work. Mark-up new information which is recognized to be of importance to Owner, but was for some reason not shown on either contract drawings or shop drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date. Note related change order numbers where applicable. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.

- C. Record Specifications: Maintain one copy of specifications, including addenda, change orders and similar modifications issued in printed form during construction, and mark-up variations (of substance) in actual work in comparison with text of specifications and modifications as issued. Give particular attention to substitutions, selection of options, and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable. Upon completion of mark-up, submit to Architect for Owner's records.
- D. Record Product Data: Maintain one copy of each product data submittal, and mark-up significant variations in actual work in comparison with submitted information. Include both variations in product as delivered to site, and variations from manufacturer's instructions and recommendations for installation. Give particular attention to concealed products and portions of the work which cannot otherwise be readily discerned at a later date by direct observation. Note related change orders and mark-up of record drawings and specifications. Upon completion of mark-up, submit complete set to Architect for Owner's records.
- E. Record Sample Submittal: Immediately prior to date(s) of substantial completion, Architect (and including Owner where desired) will meet with Contractor at site, and will determine which (if any) of submitted samples maintained by Contractor during progress of the work are to be transmitted to Owner for record purposes. Comply with Architect's instructions for packaging, identification marking, and delivery to Owner's sample storage space.
- F. Miscellaneous Record Submittals: Refer to other sections of these specifications for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the work. Immediately prior to date(s) of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to Architect for Owner's records.
- G. Maintenance Manuals: (not required for this project) Organize maintenance and operating manual information into suitable sets of manageable size, and bind into individual binders properly identified and indexed (thumb-tabbed). Include emergency instructions, spare parts listing, copies of warranties, wiring diagrams, recommended "turn-around" cycles, inspection procedures, shop drawings, product data, and similar applicable information. Bind each manual of each set in a heavy-duty, 2", three-ring

vinyl-covered binder, and include pocket folders for folded sheet information. Mark identification on both front and spine of each binder.

2.00 EXECUTION

2.01 CLOSEOUT PROCEDURES

- A. General Operating/Maintenance Instructions: Arrange for each installer of work requiring continuing maintenance or operation, to meet with Owner, at project site, to provide basic instructions needed for proper operation and maintenance of entire work. Include instructions by manufacturer's representatives where installers are not expert in the required procedures. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning and similar procedures and facilities. For operational equipment, demonstrate start-up, shut-down, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, energy effectiveness, and similar operations. Review maintenance and operations in relation with applicable warranties, agreements to maintain, bonds, and similar continuing commitments.

2.02 FINAL CLEANING (Also see SECTION 01710 - CLEANING)

- A. General: Special cleaning for specific units of work is specified in sections of Divisions 2 through 16. General cleaning during progress of work is specified in General Conditions and as temporary services in "Temporary Facilities" section of this Division. Provide final cleaning of the work, at time indicated, consisting of cleaning each surface or unit of work to normal "clean" condition expected for a first-class building cleaning and maintenance program. Comply with manufacturer's instructions for cleaning operations. The following are examples, but not by way of limitation, of cleaning levels required:
1. Remove labels which are not required as permanent labels.
 2. Clean exposed interior hard-surfaced finishes, to a dirt-free condition, free of dust, stains, films and similar noticeable distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces.
 3. Clean concrete floors, broom clean. Remove any and all stains or construction
 4. Existing pavilion must also be cleaned of all construction dust and debris.
 5. Clean light fixtures and lamps so as to function with full efficiency.
- B. Removal of Protection: Except as otherwise indicated or requested by Architect, remove temporary protection devices and facilities which were installed during course of the work to protect previously completed work during remainder of construction period.
- C. Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at site, or bury debris or excess materials on Owner's property, or discharge volatile or other harmful or dangerous materials into drainage systems; remove waste materials from site and dispose of in a lawful manner.
- D. Where extra materials of value remaining after completion of associated work have become Owner's property, dispose of these to Owner's best advantage as directed.

END OF SECTION 01705

SECTION 01710 - CLEANING1.01 GENERAL

A. Description:

1. Execute cleaning during progress of the work and at completion of the work. Related requirements specified elsewhere: Cleaning for specific products or work: the Specification Section for that work.
2. The contractor shall provide cleaning on a daily basis at the end of each workday. It will also be necessary to provide a very thorough cleaning.
3. It will be necessary for the contractor to keep a neat and organized operation on site during construction. The parking lot must also be maintained free of construction materials.

B. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws. Also, work with the Golf Course grounds staff to ensure that the quality of cleaning operations is sufficient to meet the requirements of the Owner.

C. Related work specified elsewhere. See project closeout, Section 01705, for additional requirements involving cleaning and final cleaning.1.02 PRODUCTS/MATERIALS

A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.

B. Use only those cleaning materials and methods recommended by manufacturers of the surface materials to be cleaned.

C. Use cleaning materials only on surfaces recommended by cleaning material manufacturers.

1.03 EXECUTION

A. During Construction:

1. Execute cleaning every evening after construction work has ceased for the day to keep the work, the site and adjacent property free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
2. Provide on-site containers for the collection of waste materials, debris and rubbish. There should be no rubbish or debris around the containers. All material should be in the container itself.
3. Remove waste materials, debris and rubbish from the site on a regular basis and dispose of at legal disposal areas away from the site.

B. Dust Control:

1. The Contractor shall also clean interior and exterior spaces prior to the start of finish painting, and continue cleaning on an as-needed basis until painting is finished.
2. Schedule operations so that dust and other contaminants resulting from cleaning will not fall on wet or newly coated surfaces.

C. Final Cleaning: (Also see SECTION 01705 - PROJECT CLOSEOUT)

1. The Contractor shall employ skilled workmen for final cleaning. Only the highest quality cleaning of the work will be accepted by the owner.
2. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
3. Broom clean interior and exterior paved surfaces; rake clean other surfaces of the grounds. This applies to limits of Contractor's use of paved surfaces and grounds. The paved surfaces should also be hosed off and cleaned free of any stains or accumulated dirt.
4. Prior to final completion, or Owner's occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that the entire work is clean.

END OF SECTION 01710

SECTION 01720 - PROJECT RECORD DOCUMENTS1.00 GENERAL1.01 DESCRIPTION

A. Work Included:

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

B. Related Work Described Elsewhere: SECTION 01340 -Shop Drawings, Product Data, and Samples.

1.02 QUALITY ASSURANCE

A. General: Delegate the responsibility for maintenance of record documents to one person on the Contractor's staff as approved in advance by the Architect.

B. Accuracy of Records: Thoroughly coordinate all 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 properly show the change. Accuracy of records shall be such that future searches for items shown in the Contract Documents may reasonably rely on information obtained from the approved record documents.

C. Timing of Entries: Make all entries within 24 hours after receipt of information.

1.03 SUBMITTALS

A. General: The Architect's approval of the current status of record documents will be a prerequisite to the Architect's approval of requests for progress payment and request for final payment under the Contract.

B. Progress Submittals: Prior to submitting each request for progress payment, secure the Architect's approval of the record documents as currently maintained.

C. Final Submittal: Prior to submitting request for final payment, submit the final record documents to the Architect and secure his approval.

1.04 PRODUCT HANDLING

A. Use all means necessary to maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of the work and transfer of the recorded data to the final record documents. In the event of loss of recorded data, use all means necessary to secure the data to the Architect's approval; such means shall include, if necessary in the opinion of the Architect, removal and replacement of concealing materials and, in such case, all replacements shall be to the standards originally specified in the Contract Documents.

2.00 PRODUCTS

2.01 RECORD DOCUMENTS

- A. Job Set: Promptly following award of Contract, secure from the architect, at no charge to the Contractor, one complete set of all documents comprising the Contract.

3.00 EXECUTION

3.0 1 MAINTENANCE OF JOB SET

- A. Identification: Immediately upon receipt of the job set described 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 the Architect.
 - 2. Do not use the job set for any purpose except entry of new data and for review by the Architect, until start of transfer of data to final record documents.
 - 3. Maintain the job set at the site of work as that site is designated by the Architect.
- C. Making Entries on Drawings: Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by note and by graphic line, as required. Date all entries. Call attention to the entry by a "cloud" around the area or areas affected. In the event of over- lapping changes, different colors may be used for each of the changes.
- D. Making Entries on Other Documents:
 - 1. Where changes are caused by directives issued by the Architect, clearly indicate the change by note in ink, colored pencil, or rubber stamp.
 - 2. Where changes are caused by Contractor-originated proposals approved by the Architect, including inadvertent errors by the Contractor which have been accepted by the Architect, clearly indicate the change by note in erasable colored pencil.
 - 3. Make entries in the pertinent documents as approved by the Architect.
- E. Conversion of Schematic Layouts:
 - 1 . In most cases on the drawings, arrangement of conduits and circuits, piping, ducts, and other similar items, is shown schematically and is not intended to portray precise physical layout. Final physical arrangement is as determined by the Contractor, subject to the Architect's approval. However, design of future modifications of the facility may require accurate information as to the final physical arrangement of items that are shown only schematically on the drawings.
 - 2. Show on the job set of record drawings, by dimension accurate to within 25 mm (1"), the centerline of each run of items such as are described above. Clearly

identify the item by accurate note such as "cast iron drain", "galv. water", etc. Show, by symbol or note, the vertical location of the item ("under slab", "in ceiling plenum", "exposed", etc.). Make all identification sufficiently descriptive that it may be related reliably to the specifications.

3. The Architect may waive the requirements for conversion of schematic data where, in the Architect's judgment, such conversion serves no beneficial purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Architect.
4. Timing of entries: Be alert to changes in the work from how it is shown in the Contract Documents. Promptly, and in no case later than 24 hours after the change has occurred and been made known to the Contractor, make the entry or entries required.

- F. Accuracy of Entries: Use all means necessary, including the proper tools for measurement, to determine actual locations of the installed items.

3.02 FINAL RECORD DOCUMENTS

- A. General: The purpose of the final record documents is to provide factual information regarding all aspects of the work, both concealed and visible, to enable future modification of design to proceed without lengthy and expensive measurement, investigation, and examination.
- B. Transfer of Data to Other Documents: If the documents other than drawings have been kept clean successfully during progress of the work, and if entries have been sufficiently orderly thereon to the approval of the Architect, the job set of those documents (other than Drawings) will be accepted by the Architect as final record documents for those documents. If any such document is not so approved by the Architect, secure a new copy of that document from the Architect at the Architect's usual charge for reproduction; carefully transfer the change data to the new copy and to the approval of the Architect.
- C. Review and Approval: Submit the completed total set of record documents to the Architect as described in Item 1.03.C. above.

3.03 CHANGE SUBSEQUENT TO ACCEPTANCE

- A. The Contractor shall have no responsibility for recording changes in the work subsequent to acceptance of the work by the Owner, except for changes resulting from replacements, repairs, and alterations made by the Contractor as part of his guarantee.

END OF SECTION 01720

SECTION 01750 – TESTING + INSPECTION1.01 GENERAL

A. COMPACTION TESTING BY THE CONTRACTOR:

1. The Contractor shall schedule and be responsible for testing and inspection of soil compaction prior to pouring the concrete slab for the picnic pavilion addition. The Contractor shall have the cost for the compaction tests in his base bid (Proposal).

B. Please note that Electrical Testing and Inspections are not included in this section. Testing and Inspection for this section of work shall be covered by the Subcontractor responsible for the installation of the electrical equipment.

C. Related work specified elsewhere. See BUILDING EXCAVATION AND FILL, Section 02220 + MONOLITHIC CONCRETE WORK, Section 03310, for additional requirements involving Testing and Inspection.

END OF SECTION 01750

SECTION 02070 - DEMOLITION AND ALTERATION WORK1.00 GENERAL1.01 DESCRIPTION

A. Related work specified elsewhere:

1. The requirements of the following documents apply to the work of this Section:

- a. The Drawings.
- b. General and Supplementary General Conditions of the Contract.
- c. Division One, General Requirements.

B. All demolition and alternation work required to carry out the full intent of the plans and specifications is included in the Contract.

C. Cutting:

1. Reference Section 01045 - CUTTING AND PATCHING.
2. Cutting for the various trades shall be executed by those trades unless specifically noted otherwise.
3. All cutting shall be executed under supervision of the Contractor and shall be kept as minimal as possible.

D. Structural Members:

1. In no case shall any structural member be cut without first obtaining the written approval of the Architect.
2. If structural members are cut without the Architect's written approval, all costs of remedying the condition to the satisfaction of the Architect shall be borne by the Contractor.
3. When cutting structural members, Contractor shall shore up supported construction so that loads are adequately carried until new permanent support is installed.

Patching: Patching and repairs in all areas shall be executed by mechanics skilled in the particular trade involved and will be divided among the various sections accordingly.

1.02 MATERIAL RESULTING FROM WRECKING

A. All material resulting from wrecking will become the property of the Contractor, except as otherwise noted in the Contract Documents. Please refer to the Contract Documents for those items which are to be removed and reused.

B. Some items in the existing building shall be removed and turned over to the owner for future use. Please verify all items to be retained by the owner. Contact the architect and the owner to receive this verification prior to demolition or alterations.

1.03 PROTECTION OF BUILDING

- A. Protect the existing picnic pavilion building and its content from the elements at all times. This structure shall remain on site and be reused. The Contractor shall protect existing conditions from damage during the demolition/alteration process.

1.04 LINTELS

- A. Where openings are cut in the existing picnic pavilion building, the Contractor shall provide proper permanent support and lintels, whether specifically detailed or not.

END OF SECTION 02070

SECTION 02220 - BUILDING EXCAVATION AND FILL

1.00 GENERAL

1.01 DESCRIPTION OF WORK

- A. The extent of building excavation and fill is shown on Drawings and includes preparation of subgrade for slabs and pavements within the general building area.
- B. Excavation of trenches for utility systems inside and outside of building lines and backfilling, compaction and grading is part of the work. Also see items specified under Division Sixteen (Electrical, on the drawings) which shall be done in accordance with requirements of this Division.

1.02 QUALITY ASSURANCE

- A. Testing and Inspection Service: The Contractor shall engage a soil testing and inspection service, to test soil compaction prior to pouring concrete slabs on grade.

1.03 TEST REPORTS

- A. Test Reports: The testing service engaged by the Contractor shall submit 2 copies of the following reports directly to the Owner and Architect, with one copy to the Contractor:
 - 1. Verification of each footing and slab on grade sub-grade.
 - 2. Field density test reports to confirm compaction required, per Paragraph 3.02 Compaction, in this Section.
 - 3. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested, to confirm compaction required, per Paragraph 3.02 Compaction, in this Section.

1.04 JOB CONDITIONS

- A. Site Information:
 - 1. The existing septic drainfield is shown on the site plan. The Contractor shall verify the exact location prior to construction. No Excavation work shall begin prior to locating the drainfield and the underground utilities (see item number 3, below).
 - 2. The existing picnic pavilion shall remain and the new pavilion addition shall be located as shown on the drawings, attaching to the existing. The existing concrete lab shall be protected from undermining during the excavation and backfilling process.
 - 3. The CONTRACTOR must notify MISS DIG within 72 hours prior to excavation, to stake existing utility lines.
- B. Existing Utilities:
 - 1. Locate by hand excavation and provide protection from damage. Should uncharted, or incorrectly charted utilities be encountered during excavation, consult utility owner immediately for directions.

2. Cooperate with Owner and utility companies for keeping services in operation. Do not interrupt utility connections without providing temporary utility services, as acceptable to Architect. Repair damaged utilities to satisfaction of utility owner.
3. Contractor must notify MISS DIG within 72 hours prior to excavation, to stake existing utility lines.

C. Use of Explosives: Use of explosives is **not** permitted.

D. Protection of Persons and Property: Protect structures, utilities, sidewalks, pavements, and other facilities in areas of work. Barricade open excavations and provide warning lights. Comply with governing safety regulations.

2.00 PRODUCTS

2.01 DEFINITIONS

- A. Satisfactory Soil Materials: As defined in American Association of State Highway and Transportation Officials (AASHTO) M- 145, Soil Classification Groups A- 1, A-2-4, A- 2-5, and A- 3.
- B. Unsatisfactory Soil Materials: As defined in AASHTO M- 145 Soil Classification Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7; also peat and other highly organic soils.

2.02 SOIL MATERIAL

- A. Drainage Fill: Clean bank run gravel complying with ASTM D- 1241, Type 1, Gradation D, or clean sand free of clay, or other mixture that has been sampled, tested and approved.
- B. Backfill and Fill Materials: Use only clean sand and satisfactory soil materials for backfill and fill, defined above as; Satisfactory Soil Materials for this purpose. No organic material or unsatisfactory soil materials for backfill and fill shall be allowed.

3.00 EXECUTION

3.01 EXCAVATION

A. Excavation Classifications:

1. General:

- a. The following classifications of excavation will be made only when additional earth excavation is authorized or when unanticipated rock excavation is encountered in the work.
- b. Do not perform such work until material to be excavated has been cross-sectioned and classified. Such excavation will be paid on basis of contract conditions relative to changes in the work.

2. Earth Excavation: Includes removal and disposal of elements and other obstructions visible on ground surface, underground structures and utilities indicated to be demolished and removed, material of any classification indicated in data on

subsurface conditions, and all other materials encountered that are not classified as rock excavation or unauthorized excavation.

3. Rock Excavation:

a. Consists of removal and disposal of materials encountered that cannot be excavated with a 3/4 cubic yard capacity power shovel without drilling and blasting, or continuous use of ripper or other special equipment, except such materials that are classified as earth excavation.

- 1) Typical of materials classified as rock are boulders 1/2 cubic yard or more in volume, solid rock, rock in ledges, and rock-hard cementitious aggregate deposits.
- 2) Intermittent drilling that may be performed to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.

b. Rock payment lines are limited to the following:

- 1) Two feet outside of concrete work for which forms are required, except footings.
- 2) One foot outside the perimeter of footings.
- 3) In pipe trenches, 6" below invert elevation of pipe and 2' wider than the inside diameter of pipe, but not less than 3' minimum trench width.
- 4) Net outside dimensions of concrete work where no forms are required,
- 5) Under slabs on grade, 6" below the bottom of concrete slab.

F. Excavation for Structures: Conform to elevations and dimensions shown, extending a sufficient distance to permit placing and removing of formwork, installing of services and for inspection. Excavate by hand to final required lines and grades to provide solid base to receive concrete.

G. Excavation for Trenches:

1. Excavate to depth indicated or required. Carry depth to establish indicated flow lines and invert elevations. Keep bottoms sufficiently below finish grade to avoid freeze-ups.
2. Notch under pipe bells to provide solid bearing for entire body of pipe.
3. Backfill with concrete where trenches pass within 18" of column or wall footings and which are carried below the bottom of such footings, or which pass under wall footings. Place concrete to the level of the bottom of adjacent footing.
4. Do not backfill trenches until tests and inspections have been made and backfilling has been authorized by architect. Use care in backfilling to avoid damage or displacement of pipes.

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

3.02 COMPACTION

A. General:

1. Compact soil materials in accordance with ASTM D- 1557.
2. For structures (foundation loads), compact top 12" of subgrade and each layer of backfill or fill material at 95% maximum density.
 - a. In uniform sands for which a proctor curve cannot be established, a relative density of 70% must be obtained.
3. For building slabs, steps, walkways and pavements, compact top 12" of subgrade and each layer of backfill or fill materials at 95% maximum density.
 - a. In uniform sands for which a proctor curve cannot be established, a relative density of 70% must be obtained.
4. For lawn or unpaved areas, compact top 6" of subgrade and each layer of backfill or fill material at 90% maximum dry density.

- B. Moisture Control: Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to prevent free water appearing on surface during or subsequent to compaction operations. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

3.03 BACKFILL AND FILL

A. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials prior to placement of fills. Scarify as required so that fill material will bond with existing surface.
2. Place acceptable soil materials in layers not more than 8" In loose depth, compacting each layer to required maximum density. Do not place on surfaces that are muddy, frozen, or contain frost or ice.
 - a. In excavations (against foundations), use satisfactory soil materials or borrow material, except at footing drains.
 - b. Under grassed areas, use satisfactory excavated or borrow material except top 4", to allow for topsoil placement.
 - c. Under walks, steps, ramps and building slabs, use only Satisfactory (approved) soil materials as fill materials, which are compacted as required by this specification for use under concrete slabs. For the top layer of prepared sub-base materials, use drainage fill materials (6" minimum or greater depth if specified as deeper on the drawings).
3. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around structure to approximately same elevation in each lift.

3.04 GRADING

- A. Uniformly grade areas indicated, including adjacent transition areas, with uniform levels or slopes between finish elevations.
- B. Grade areas adjacent to building lines to drain away from structures and to prevent ponding. Finish grade areas outside building lines to be free from irregular surface changes to within not more than 0.10' above or below the required subgrade elevations.
- C. Grade surface of fill under building slabs smooth and even, free of voids, to required elevations. Provide final grades within a tolerance of 1/2" when tested with 10' straightedge.

3.05 FIELD QUALITY CONTROL-TESTING DURING CONSTRUCTION

- A. Contractor shall allow testing service employed by the Contractor to inspect and approve all subgrades and fill layers under footings, slabs on grade, sidewalks, roadways, parking areas, etc., before further construction work is performed thereon. The Contractor shall give the testing service adequate advance notice of the Contractor's earthwork schedule so the testing service will have adequate time to inspect and approve such work and not cause delay in the work.
- B. Testing service employed by the Contractor shall perform field density tests in accordance with ASTM D- 1556 (sand cone method) or ASTM D-2167 (rubber balloon method), as applicable.
 - 1. For each strata of soil on which footings will be placed, conduct at least one test to verify required design bearing capacities. Subsequent verification and approval of each footing subgrade may be based on a visual comparison of each subgrade with related tested strata, when acceptable to the Architect.
 - 2. Make at least one field density test of the subgrade for every 1,000 sq.ft. of paved area or building slab, but in no case less than 3 tests. In each compacted fill layer, make one field density test for every 1,000 sq.ft. of overlaying building slab or paved area, but in no case less than 3 tests.

3.06 MAINTENANCE

- A. Repair and re-establish grades in settled, eroded and rutted areas to specified tolerances. Where completely compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape and compact to required density prior to further construction.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS

- A. Transport acceptable excess excavated material to designated soil storage areas on the Owner's property. Stockpile soil or spread as directed by Architect.
- B. Remove all waste materials, including excavated material, trash and debris, razed footings, foundations, etc. and legally dispose of it off of the Owner's Property.

END OF SECTION 02220