

REQUEST FOR PROPOSAL



IDAHO STATE LIQUOR DISPENSARY

**Design Build Services
for an
Automated Storage and Retrieval System**

Boise, Idaho

Authorization to Bid	
DPW Project No.	08-321
<i>Bill Applegate</i>	Responsible Chief Officer
<i>[Signature]</i>	Administrator of Public Works



Specializing in the Planning, Engineering and Implementation of
Advanced Material Handling, Information and Control Systems
Supporting Logistics, Manufacturing and Distribution Excellence.

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DURING PROJECT EXECUTITION127

1. INTRODUCTION

The Idaho State Liquor Dispensary is experiencing substantial year over year growth in their business. As a result of this growth, they are in the process of increasing the capacity of their liquor distribution facility. In an effort to achieve this they are exploring the use of a Very Narrow Aisle (VNA) Automatic Storage and Retrieval System (AS/RS) within the facility.

Confronted with this aspect of procuring an automated storage and retrieval for their operation, the Idaho State Liquor Dispensary, has obtained a third party to prepare a Request for Proposal for the AS/RS system they are considering. *Through discussions with Idaho State Liquor Dispensary management, it has been determined that the RFP should be 'descriptive' RFP, describing the throughput, inventory and operating requirements of any proposed system, but NOT specify an exact system configuration to be employed (i.e. the RFP will NOT specify the number of cranes, aisles, etc. but rather will specify the number of pallets the system will need to hold, and the like).* This will allow each supplier bidding on the effort to bring forward their best system solution and utilize their equipment in a fashion that maximizes its effectiveness, provided it supports the operational needs of the facility as specified in the RFP. The RFP will allow for consistent communication of pricing format requirements, project schedule, general terms and conditions and the like.

1.1. Statement of Project

The Owner (Division of Public Works) intends to engage vendors to design build and install equipment to be used for the storage and retrieval of full pallet and partial pallet unit loads for distribution. This specification document provides specifications, descriptions and instructions to solicit proposals for the Storage/Retrieval System.

The scope of the project will include the Automated Storage and Retrieval System (ASRS) to be installed in the existing 217-foot length by 80-foot width by 50-foot high warehouse. The ASRS will include capacity to manage a minimum of 2,800 pallets. The scope is design-build, and will result in a completely turn-key system. Scope will include the following at a minimum:

- ASRS cranes
- Racking system and any required pallets
- All required fire suppression systems and building modifications
- Input/output pallet conveyors routing pallets from the cranes to and from the low bay warehouse
- Carton picking stations and associated mezzanines, pick face replenishment carton routing conveyors from the picking stations to the existing carton flow picking area located on a mezzanine above the low bay dock.
- Required hardware and software components to control the system and to interface with the Agency's Warehouse Management System (WMS).
- Project management, Training, Documentation, maintenance manuals and performance testing as defined in this RFP

1.2. Definitions and Abbreviations

- a) RFP- Request for Proposal. This document constitutes a solicitation for material handling equipment proposals. Any subsequent contract awarded shall integrate the requirements, instructions, terms, conditions, specifications, and standards referenced in this proposal.
- b) Purchaser – Department of Public Works. Also referred to as Owner.
- c) Agency – Idaho State Liquor Dispensary
- d) Supplier - This term refers to those design build firm from whom proposals are being solicited. From this potential supplier base, a supplier will be selected and a contract awarded. Also referred to as Bidder, Proposer or Vendor.
- e) Project - Idaho State Liquor Dispensary Automated Storage & Retrieval System.
- f) St. Onge - St. Onge Company is an independent engineering and consulting firm specializing in material handling applications. St. Onge assists in the specification development for RFP's, the analysis of RFP's for purchase, and overseeing the implementation of the equipment and startup of the material handling system. Also referred to as Owner's Agent.

1.3. Project Management

Idaho State Liquor Dispensary will manage the overall Distribution Center project at the Idaho State Liquor Dispensary facility in Boise, Idaho. The St. Onge Company will assist Idaho State Liquor Dispensary in the planning, scheduling, managing, and coordination of resources and events contributing to the project. Idaho State Liquor Dispensary's responsibilities will be procurement, project management, and operating staff selection for system training and maintenance.

St. Onge Company (the Owner's Agent) is a Material Handling Consultant to Idaho State Liquor Dispensary and will assist the Idaho State Liquor Dispensary Project Management in the selection of the S/RM vendor and the management of the system installation and commissioning. Jason Gryzkowiec should be considered the single point of contact throughout the bidding process:

Jason Gryzkowiec
St. Onge Company
1400 Williams Road
York, PA 17402
Office: (717) 840-8181 x8024
Cell: (717) 873-0015

1.4. Facility Location

The facility address is:

1349 E. Beechcraft Court
Boise, ID 83716-9608

2. BUDGET LIMIT

The maximum total amount of the Design-Build Services Contract will be \$2,850,000. This budget includes, but is not limited to, the following items: design by the proposing team, material and installation costs, facility improvements required to support the proposed system, lighting and fire suppression, electrical, training, documentation, maintenance manuals and applicable taxes and permits as may be required.

Note that as a Division of Public Works project:

- Equipment and materials are taxed, but not services.
- There would not be any Ada County or Boise City building permits required
- Fire protection permits and inspections come under the purview of the State Fire Marshall. Permits will be required to be acquired by the vendor.

Proposing teams are expected to provide the highest quality of materials, construction, finishes, fixtures, equipment and systems without jeopardizing the project budget.

3. SCOPE OF PROJECT

The scope of the project under the contract includes furnishing all detailed engineering, documentation, materials, training, labor and spare parts necessary to design, build, deliver, install, debug, startup and support the Automated Storage/Retrieval System and supporting conveyor systems.

3.1. Scope of Work

3.1.1. Work Included

The Vendor will supply all materials, delivery, labor, training, IT software and hardware, spare parts kit, testing and operational support required to provide the Owner with a completely turnkey system ready for immediate use. Although there is freedom for the supplier to propose any design that meets the performance requirements for the specified budget, it is envisioned that the Supplier will provide:

- Automatic Storage/Retrieval Machines
- S/RM Controller (all software and hardware requirements) with interface to the Owners Warehouse Management System.
- All proposed pallet and carton conveyor
- All required facility improvements required for the proposed system including creation of any openings in the wall between the original warehouse and the 2007 addition (ASRS area), mezzanines, lighting and sprinkler improvements, and electrical improvements.
- Picking stations serviced by the AS/RS system for purposes of carton replenishment to the existing split case mezzanine pickline.
- All indexing conveyor to bring pallets from the ASRS to the pick stations as well as the conveyor to return the residual pallet to the ASRS.
- All microprocessor and/or PLC programming for correct, complete and safe operation of the S/RM's and conveyor.
- All devices including but not limited to positioning devices, photo eyes, proximity or limit switches, and safety switches required for the operation of the S/RM's and conveyor.
- Uninterruptable Power Source (UPS) for controlled system shutdown
- Any required pallets or slave boards
- S/RM Racking system and associated fire suppression system
- All rail, guides, supports, stops, shims, and other hardware required for the installation of the S/RM's and conveyor
- Spare part kits for S/RM's and conveyor
- Operator and Maintenance Training
- Operator and Maintenance manuals
- Vendor Site Testing.

- Delivery and Unloading.
- Installation.
- Acceptance Testing.
- Vendor Support after Installation.
- Other equipment and services needed to meet the requirements described in this specification.

4. PROJECT SCHEDULE REQUIREMENTS

The vendor shall supply a project schedule as a part of any bid submission. The selected Vendor must provide a detailed project schedule within two weeks after an award of contract. The following schedule displays the minimal target dates for the project

PROJECT SCHEDULE	DATE
RFQ Released	April 28, 2009
Bidders Conference Boise	May 5,2009 2pm-4pm
Bid Packages Due	June 16, 2009
Oral Presentations	June 30, 2009
Vendor Selected	July 10, 2009
Engineering & System Design Completed	Vendor Determined
Mechanical & Electrical Fabrication Completed	Vendor Determined
Delivery and Begin Installation	January 4, 2010
Owner Inspection and Start Testing and Training	March 18, 2010
Integrate With WMS	March 25, 2010
Start Loading System	April 1, 2010
Owner Testing and Training Completed	April 15, 2010

4.1. Project Milestones

The following items constitute the major milestones of the project. EACH MILESTONE REQUIRES APPROVAL IN THE FORM OF A FORMAL REVIEW AND SIGN-OFF BY THE OWNER OR OWNER'S AGENT.

4.1.1. Vendor Schedule

The Vendor shall perform his work in phases. Within two weeks from award of contract, the Vendor shall submit a detailed schedule. As a minimum, this schedule shall detail the elements and duration relating to the following milestones:

1. System Functional Design Approval
2. Mechanical Design Approval
3. Electrical Design Approval
4. Control System and Software Design Approval
5. Systems Interface Design Approval
6. Procurement and Fabrication Schedule Approval
7. Shop Drawings Approval
8. Spare Parts List
9. Shipment Date Approval
10. Delivery and Installation Approval
11. Begin Installation
12. Manuals and Documentation Approval
13. Training Approval
14. Owner Site Inspection, Approval, and Commissioning

The Vendor shall include formal project status reviews for the Owner's approval in the schedule. Any documentation required for these meetings such as functional descriptions, drawings, flow charts, etc. must be provided to the Project Manager at least two business days prior to the meeting. Meeting minutes, which shall include agreements, approvals, and unresolved items, shall be written at the end of each meeting between the Project Manager and the Vendor. Designated representatives from the Owner and the Vendor shall each sign the document.

During the project the Vendor shall routinely report on progress relative to the schedule.

4.1.2. System Functional Design Approval

The selected Vendor shall prepare a document including the equipment/system concept, the control concept and the preliminary layout of the system. This document shall be used as the basis for further design activity. A formal review of the document shall be conducted between the Vendor and the Owner and/or Owner's Agent before it is approved. Approval of this document constitutes this milestone.

Changes made to the document will be made by change order approved by the Vendor and the Owner prior to incorporation in the system. All change orders will be incorporated into the final document delivered to the Owner at system turnover.

4.1.3. Mechanical and Electrical Design Approval

This milestone is the approval of the equipment design for physical layout and mechanical configuration. All design criteria listed in Sections 7, 8, and 9 must be met. Formal reviews (which should be listed in the schedule) will consider locations, elevations, interfaces, material gauges, shapes, and construction.

For the final review meeting, assembly drawings, detailed drawings and functional descriptions of the equipment and control system shall be completed. Drawings must include the locations of control cabinets, electrical cabinets, pneumatic and electrical controls, wireways, piping, mechanical and electrical service drop locations, etc. Detail shall include location on floor plan, elevation, loads, consumption, etc. The Vendor shall also specify total power requirements. Requirements and criteria for the Vendor site test shall also be reviewed.

Mechanical Design approval does not relieve the equipment Vendor of his responsibility for operational or structural integrity of the system.

4.1.4. Control System and Software Design Approval

This milestone is the approval of the control system and software design.

As part of the overall project scheduling, software and controls development milestones and major reviews between the Project Management and the software/controls developer are to be established. The schedule will also include review meetings between the Owner and/or Owner's Agent and the software/controls developer. These meetings will be held regularly and periodically at a mutually agreed upon frequency to review control system and system software development status.

For the final review meeting, submittals must minimally include control system block diagram(s), WMS integration specification, functional description of the control system, sequence of operations flow charts/diagrams, timing diagrams, schematic diagrams, wiring diagrams, cabinet layouts, and bill of materials for all control and electrical cabinets.

Control System and Software Design approval does not relieve the equipment Vendor of his responsibility for the operational integrity of the system. Reference Section 8.5 for further details.

4.1.5. Systems Integration Design Approval

Development and major reviews between the S/RM system Vendor, the Owner's Warehouse Management System, and the Conveyor Control System are to be established. Coordination for this activity will be performed by the Owner and/or Owner's representative. These meetings will be held regularly and periodically at a mutually agreed upon frequency to review the systems integrations required among these systems.

Because of the time constraints and importance of this integration , these meetings shall be performed as early in the project as possible to schedule timetables and data availability for testing purposes so as not to interfere with any Vendors' deliverables.

All Vendors will be held equally responsible for the integration of their systems to one another.

4.1.6. Procurement and Fabrication Schedule Approval

This milestone is the Owner approval of the Vendor's detailed schedule identifying the procurement and fabrication of major components. This schedule shall be reviewed and updated by the Vendor with approval by the Owner.

4.1.7. Shop Drawing Approval

This milestone is the Owner approval of the Vendor's detailed shop drawings identifying the fabrication of major components. This schedule shall be reviewed and updated by the Vendor with approval by the Owner.

4.1.8. Spare Parts List

The Vendor shall provide a spare parts list with prices, estimated delivery times, and recommended on hand quantities in sufficient time to support parts availability after acceptance. The list shall include commercial component Vendor names and part numbers in addition to or in lieu of the equipment Vendor part names and numbers. The Owner's receipt of the recommended spare parts list constitutes this milestone.

4.1.9. Shipment Date Approval

This milestone consists of the approval by the Owner of the scheduled delivery date(s) to the job site.

4.1.10. Delivery and Installation Approval

Upon receipt at the Owner's plant the equipment components will be unloaded by the equipment Vendor. The Owner reserves the right to make a complete inspection of delivered materials at this time, prior to the commencement of any installation. This milestone is the approval by the Owner for installation of equipment to begin.

4.1.11. Begin Installation

This milestone is the physical commencement of installation at the Owner's site.

4.1.12. Manuals and Documentation Approval

This phase is concurrent with the design and installation phases. When the design has been approved and any revisions incorporated from the approval process, these drawings and/or manuals become part of the system documentation. Any revisions or change orders shall reflect all changes to the equipment configuration and become part of this documentation. At acceptance time when the equipment and system are deemed acceptable, the Owner shall review the documentation provided and, when it is acceptable, give their approval. Drawing and documentation requirements are discussed further in Section 14.

4.1.13. Training Approval

The Vendor shall provide training as defined in Section 11 of this specification. This milestone consists of the approval by the Owner and/or Owner's Agent of the completed training.

4.1.14. Owner Site Inspections & Test Approvals

Inspections and Tests at the Owner's site consist of various phases, which are discussed in Section 12. The duration and completion dates for each phase should be identified in the Vendor's schedule with sufficient times allowed for Owner and/or Owner's Agent to review and test. The vendor shall be responsible for providing a high quality and reliable product that meets the specifications, capacity and throughput described in all sections of this Specification.

5. PROPOSAL REQUIREMENTS

5.1. Specification Documents

5.1.1. Examination and Interpretation

Supplier shall be responsible for their own review and familiarization with the Specification Documents, the site, the areas adjacent to the site and all federal, state and local laws, rules and regulations applicable to the Project.

Supplier shall promptly notify, in writing, the Owner's Agent (St. Onge Company's Project Manager) of any ambiguity, inconsistency, error or illegality which it may discover upon examination of the Specification Documents, the site or the local conditions pertaining to the site and the areas adjacent thereto.

Suppliers requiring clarification or interpretation of the Specification Documents shall make a verbal request followed by a written request to Owner's Agent, in which the written request must be received by Owner's Agent at least five (5) days prior to the Proposal deadline.

Any interpretation, correction, or change in the Specification Documents will be by Addendum and, if necessary, forwarded to all bidding suppliers. Interpretation, corrections or changes of the Specification Documents made in any other manner will not be binding, and the Suppliers shall not rely upon such interpretations, corrections or changes.

Any questions regarding the Project are to be referred to the St. Onge Company's Project Manager in writing. No oral instructions shall be considered binding on the Owner's Agent or Supplier.

5.1.2. Deviations

Should any Supplier desire a deviation from the Specification Documents before award of contract, a written request for deviation must be submitted to and approved first by the Owner's Agent and then by the Owner prior to implementing same. The following signatures are required for such a deviation:

St. Onge Company Project Manager - Mr. Jason Gryzkowiec

Idaho Division of Public Works Project Manager - Mr. John Costner

5.1.3. Confidentiality

Due to public records requirements in the State of Idaho, all documentation received from the Supplier should not be considered confidential. If there is proprietary information that requires confidential status that information must be placed into a separate sealed envelope/binder which clearly states confidential: proprietary information.

5.1.4. Specification Documents and Addendum

The Request for Proposal will be posted to the Department of Public Works web site as well as an e-room hosted by St. Onge Company. A hard copy of the Request for Proposal can be mailed to the Proposer upon request.

The St. Onge hosted e-room requires a password. Invitations to the e-room containing access instructions and passwords can be obtained by contacting Jason Gryzkowiec.

Jason Gryzkowiec
St. Onge Company
Phone: (717) 840-8181
jgry@stonge.com

All addendum will be emailed or faxed to all participants. The addendum will also be posted to the Department of Public Works web site and the St. Onge Hosted e-room. It is the responsibility of the DBT to acknowledge receipt of all addendum.

Drawings and other supporting documents referenced in the Request for Proposal will be posted to the St. Onge hosted e-room. Drawings can also be mailed to Proposers on a CD upon request.

5.2. Bidders Conference

A bidders conference will be held at the Idaho State Liquor Dispensary on May 5, 2009 from 2:00PM to 4:00PM local time. The conference will include a facility tour, question and answer session, and time for Suppliers to independently evaluate the facility. Attendance is strongly encouraged.

5.3. Proposal Documents

5.3.1. Preparation of Proposals and Submittals

To be considered for selection, proposers must submit a signed Technical Proposal and Cost Proposal to St. Onge Company and to the State of Idaho, Division of Public Works. The Technical Proposal and Cost Proposal shall be prepared as two separate packages, placed in separate sealed envelopes/packages identified and appropriately marked as "Technical Proposal" and "Cost Proposal", and then both placed in one sealed submission package.

Six (6) technical and six (6) cost proposals shall be submitted to the office of:

**John Costner, Project Manager
State of Idaho
Division of Public Works
502 N. 4th Street
Boise, ID 83712**

Proposals shall be made on the Proposal Form as included in the Specification Documents with attachments as specified in the following section. The Proposal Form shall have all blanks completed. Proposals shall be signed by an authorized officer of the Supplier who shall also certify that the Proposal has been reviewed by the Supplier and contains no errors or mistakes, which would allow such Supplier to withdraw or avoid its bid.

5.3.2. Proposal Submittal Time Frame

Any Proposal not received prior to 5:00 PM local time on June 16th, 2009 will not be considered.

Proposals shall constitute an offer to do business, which shall remain open for acceptance for 90 days.

5.3.3. Processing of Proposals

The Agent & Owner will evaluate all Proposals submitted and reserve the right to reject or negotiate modifications with respect to any or all Proposals.

Any explanation, or statement, which qualifies a Proposal that the Supplier wishes to make shall be contained in a separate letter clearly setting forth how the Specification Documents are to be modified or qualified.

5.3.4. Oral Presentation

The Owner will require the top three Proposers to give an oral presentation. This provides an opportunity for the Proposer to clarify or elaborate on the proposal. The overall project manager and onsite project manager must attend this meeting. This is primarily a fact finding and explanation session. The Owner has scheduled these presentations on June 30th, 2009 in Boise, Idaho.

5.3.5. Proposal Rejection

The Owner reserves the right to accept or reject any and all proposals if the Owner considers it in its interest to do so and to reject the proposals of any proposer who it considers not to be in a position to perform the Contract.

6. TECHNICAL PROPOSAL EVALUATION CRITERIA

Idaho State Liquor Dispensary and St. Onge Company will evaluate all Proposals submitted. The project team reserves the right to add, delete, or modify this RFP at any time with respect to any or all Proposals. The following tables and narratives illustrate the proposal evaluation criteria to be used by the selection team.

TECHNICAL PROPOSAL	
<p>System Capacity & Performance</p> <ul style="list-style-type: none"> • 2,800 pallet positions within ASRS (mandatory) • Competiveness of design to provide capacity to support rapid growth of sales and inventory • Competiveness of design to utilize the 2007 expansion for high density storage – storage system design to maximize density of varying pallet heights and partial pallets • Competiveness of design to create high productivity tasks for split case replenishment activities. Retrieve reserve pallet from ASRS to replenishment pick station and return residual pallet to ASRS. Provide mechanized transport of replenishment cartons from carton pickstation to existing split case carton flow pick area for replenishment. • Competiveness of ergonomic and productive replenishment workstation design • Competiveness of design to eliminate or minimize full pallet and split case replenishment cycle time • Competiveness of design to minimize operational impact of any required pallets or slave boards • System flexibility to handle variance in flow demands and intra-day peaks • Competiveness of design to provide ability for future expansion 	<p>50 points</p>
<p>Project Installation and Schedule</p> <ul style="list-style-type: none"> • Confidence in general qualifications of subcontractors and suppliers • Confidence in general qualifications and capabilities of the Supplier. This will include warranty, guarantee, service capability, and performance reports from prior customers. • Confidence in project team • Competitiveness of proposed project schedule 	<p>50 points</p>
<p>System Integration & Operational Costs</p> <ul style="list-style-type: none"> • Competiveness of design to minimize ongoing operational costs • Competiveness to minimize implementation cost and effort to integrate with existing WMS 	<p>50 points</p>
<p>System Maintenance, Training and Documentation</p> <ul style="list-style-type: none"> • Competiveness of design to minimize preventative and unplanned maintenance costs • Control system capability and operational simplicity • BOM quality components • Sample spare parts package demonstrates support of system and quality components • Quality of training material • Quality of documentation 	<p>50 points</p>

<ul style="list-style-type: none"> • Competitiveness of 36 month comprehensive maintenance package • Competitiveness of vendor onsite support after startup 	
Total Technical Points	200

Each member of the selection committee will evaluate the proposal and award evaluation points, providing a total evaluation point tally for each proposal. The overall evaluation point total for each proposal will consist of the sum of the individual selection committee member evaluation point tallies.

Cost Proposal Evaluation Criteria. The Cost Proposals will be scored as shown below.

COST PROPOSAL	
System Cost <ul style="list-style-type: none"> • Competitiveness of system cost • Value 	100 points
36 Month Comprehensive Maintenance Cost	50 points
Total Cost Proposal Points	150 points

When the Committee has conducted a final evaluation of all technical proposals, they will then submit a consensus Rating Summary to the person holding the sealed Cost Proposals. The proposals will be opened and the cost information evaluated as indicated above.

To determine the top three successful design-build proposals, the total of the technical and cost scores will be added to arrive at a total score for each proposal.

The Evaluation Committee will use the RFP and the submitted material to evaluate the proposals. Any proposal which fails to meet the established parameters will be rejected before formal evaluation and ranking is accomplished. The Committee must evaluate and rank at least two proposals. If only one meets all design parameters and program requirements, the process shall proceed only upon written authorization of the Division of Public Works Project Manager.

Oral Presentation

ORAL PRESENTATION	
Total Oral Presentation Points	100 points

When the Oral Presentations have been evaluated and the proposals have been ranked by the combined Technical, Cost and Oral Presentation scores, the Committee shall make its recommendation on the selection of a proposer to the Permanent Building Fund Advisory Council, based on its evaluation. The Division of Public Works Project Manager shall select the proposer. Award of the design-build contract shall be made to the proposer that submits the highest-valued design-build proposal (combination of Cost & Technical Proposal Scores).

6.1.1. Contract Award

The Owner anticipates contracting for this project within 60 days from the proposal due date.

6.1.2. Proposal Rejection

The Owner reserves the right to accept or reject any and all proposals if the Owner considers it in its interest to do so and to reject the proposals of any proposer who it considers not to be in a position to perform the Contract.

6.1.3. Proposal Contents

All Suppliers must follow the prescribed format and supply all required information to be considered in the evaluation. Furthermore, all Proposals must reflect the requirements identified in these specifications with no deviations except for those that may have been approved in writing by Owner and Owner's Agent as herein provided. The Proposal format will be as follows:

6.1.3.1. Proposal Form

Spaces are provided in the form for information on total price, price breakdown and schedule. All blanks must be completed. The Supplier is to provide specific prices for materials and fabrication as indicated on the form.

PRICE PROPOSAL RESPONSE FORM

Having examined the Specification Documents and in strict accordance with all of the provisions and requirements thereof regarding the Project known as the

**"Idaho State Liquor Dispensary Automated Storage Retrieval System
DPW # 08321"**

(hereinafter referred to as the "Project"), the undersigned hereby makes the following Proposal:

ATTENTION:

**John Costner, Project Manager
State of Idaho
Division of Public Works
502 N. 4th Street
Boise, ID 83712**

To furnish all materials, labor, tools, equipment, transportation, and any other facilities required to perform the entire Work Package as defined in the Specification Documents (excluding 36 month comprehensive maintenance package) at the lump sum price of:

\$ _____

Price Breakdown

Price breakdown for major elements of the Base Proposal.

Storage/Retrieval Machines

Equipment Design and Engineering	\$ _____
Mechanical Equipment Components	\$ _____
Mechanical Installation	\$ _____
Electrical & Control Components	\$ _____
Electrical Installation	\$ _____
Software	\$ _____
PC/PLC Hardware (if applicable)	\$ _____
IT integration and testing	\$ _____
Uninterruptable Power Source (UPS)	\$ _____
Delivery	\$ _____
Field Engineering	\$ _____
On-site Vendor Representative after System Start-up	\$ _____
Training	\$ _____

Warranty	\$ _____
Spare Parts Package	\$ _____
Comprehensive Maintenance Support 36 months (note this expense is not included in budget limit)	\$ _____
Total for Storage/Retrieval Machines	\$ _____

S/RM Rack and Pallets

S/RM Rack	\$ _____
Delivery	\$ _____
Rack Installation	\$ _____
Pallets	\$ _____
Fire Suppression	\$ _____
Delivery	\$ _____
Integration testing	\$ _____
Total for S/RM Rack System	\$ _____

Conveyor System

Equipment Design and Engineering	\$ _____
Mechanical Equipment Components	\$ _____
Mechanical Installation	\$ _____
Electrical & Control Components	\$ _____
Electrical Installation	\$ _____
Software	\$ _____
PC Hardware (if applicable)	\$ _____
Delivery	\$ _____
Field Engineering	\$ _____
On-site Vendor Representative after System Start-up	\$ _____
Spare Parts Package	\$ _____
Training	\$ _____
Integration testing	\$ _____
Comprehensive Maintenance Support 36 months (note this expense is not included in budget limit)	\$ _____

Total for Conveyor System

\$

6.1.3.2. Proposal Attachments

6.1.3.2.1. Attachment 1 - Project Overview and Product Information

A narrative summary identifying the Supplier's understanding of the job content and presenting an overview of the proposed system shall be provided. Provide the BOM and sample spare parts list. This shall include outline drawings and system flow charts as applicable.

All available product literature relating to the equipment required for this project shall be supplied as part of the Proposal.

A detailed description of the systems throughput capacity shall be supplied in this section. This capacity description should include the following:

- Mechanical rated capacity of all significant equipment components ex. (S/RM, transfer or merge points, transport or buffer components, etc.)
- Pragmatic hourly capacity of each appropriate subsystem
- Pragmatic hourly capacity of the entire system
- Define the overall throughput growth achievable with the proposed system above the the throughput levels for October through December of 2008.
 - Existing throughput levels and operational profile are defined in section 8.3 [Throughput of System](#) and in the supplemental data file isld_whs.xls.
 - Provide achievable throughput growth rates for two scenarios
 - Assuming a single shift with seven effective working hours 5 days per week
 - Maximize throughput and recommend a shift schedule to achieve the maximum throughput

Provide an estimate for the average and maximum transaction time to retrieve a pallet from the system and to perform a split case replenishment. The estimate should include time for all conveyor transport, and in the case of the split case replenishment task, the estimate should include the time to retrieve the reserve pallet, execute the pick and return the residual pallet to storage.

6.1.3.2.2. Attachment 2 – Schedule

Provide a project schedule that at minimum details the following milestones:

- Engineering and System Design Completed including WMS integration specification
- Mechanical & Electrical Fabrication Completed
- Integrated System Testing with WMS completed
- Delivery and Begin Installation
- Owner Inspection and Start Testing and Training
- Start Loading System

- Owner Testing and Training Completed

6.1.3.2.3. Attachment 3 - Subcontractors and Suppliers

A list of all planned Suppliers/Subcontractors, including the manufacturer of all equipment, shall be attached to the Proposal Form whenever possible. This list shall contain the name and address of such Suppliers, Subcontractors and Manufacturers and a brief work scope. Include public works contractors license number for all subcontractors. Prior to the award of any contract, the actual Suppliers, Subcontractors and Manufacturers must be identified by the Supplier and approved first by the Owner's Agent and then by the Owner.

6.1.3.2.4. Attachment 4 - Alternatives

Each offered alternative shall be provided by separate attachment in sufficient detail to compare the alternative to the Specification Documents. The exact impact of each alternative with respect to total Project cost and price breakdown as compared to the Proposal Form shall be clearly indicated.

6.1.3.2.5. Attachment 5 - Company Profile

For the Proposal to be considered, it is required that the Supplier submit, with the Proposal, a copy of such Supplier's financial statements (balance sheet and statement of profits or losses) for the last ended fiscal year and year-to-date financial statements through the fiscal month ended not less than 30 days prior to the date of the Proposal all of which, if not audited by an independent public accountant whose opinion is attached thereto, shall be certified as true, accurate and complete by the Chief Financial Officer, the President or the Owner of Supplier who shall also certify that such financial statements have been prepared in accordance with Generally Accepted Accounting Principles applied on a consistent basis for the periods covered.

6.1.3.2.6. Attachment 6 – Project Team

Provide an organizational chart showing all direct and indirect personnel, showing lines of authority, responsibility, and communication. The proposer shall propose an organizational chart showing how the parts of the project team will work, including the Owner.

The quality of the proposed personnel will be a major factor in awarding the Contract. It is critical that the proposed personnel be of the highest caliber and have experience as similar to this type of work as possible. The following information requested is a minimum requirement. The information provided should be such that it conveys the relevant expertise, experience and qualifications. Evidence that the proposed personnel have previously worked together as a team should be submitted, if applicable. The importance of your proposed staff cannot be over-emphasized and with that in mind please provide the following information on each of the proposed personnel, subcontractors, and consultants:

1. Name, title, proposed position
2. Education -- Institution(s) attended, year of graduation, specialty/degree earned:

- a. Post-graduate and specialized relevant training -- dates, institutions, courses, seminars, etc.
- 3. Licenses -- list current licenses by type and state
- 4. State how many years each proposed staff member has been employed by
 - a. Your organization:
 - b. Your organization in the position proposed:
 - c. Previous organizations in the position proposed:
- 5. Name of the firm the individual was employed by, the supervisor's name, and telephone number
 - b. Project data (minimum requirements)
 - 1) Name and location
 - 2) Project size (dollar value, square footage etc.)
 - 3) State whether the project was completed on time and on budget and if not explain
 - 4) Type of contract
 - c. Project description narrative explaining how it is similar to this Project

6.1.3.2.7. Attachment 7 – References

A list of all current projects and all projects completed within the last seven years within the United States of similar nature showing contract value, type of equipment supplied and when completed shall be provided in the Proposal. A contact's name and phone number for each project shall be included. A minimum of three (3) such projects are to be listed.

6.1.3.2.8. Attachment 8 - Training

A description of the proposed training program shall be provided in the Proposal in accordance with Section 11 and 14.

6.1.3.2.9. Attachment 9 – Spare Parts & Maintenance

Provide a sample spare parts list for a similar system. Explain the integration testing procedures and give details of the onsite vendor support after startup. Provide details of the 36 month comprehensive maintenance service. Describe the downtime required for preventative maintenance. Describe the time required for service personnel to arrive onsite for emergency maintenance.

6.1.3.2.10. Attachment 10 – Certificate of Insurance and Terms and Conditions

Certificates stating proof of insurance for the vendor and all subcontractors as outlined in the terms and conditions of this document.

A description of any exception to the terms and conditions detailed in section 15.

6.1.3.2.11. Attachment 11 – DESIGN/BUILD PROPOSAL

Execute and Submit with Proposal

DESIGN/BUILD PROPOSAL

TO: STATE OF IDAHO
DIVISION OF PUBLIC WORKS

Gentlemen:

The design builder, in compliance with your Invitation for proposals for the construction DPW Project No. 08-321, Idaho State Liquor Dispensary Automated Storage Retrieval System, having examined the request for proposals and the site of the proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of materials and labor, hereby proposes to design/engineer, furnish all labor, materials and supplies and to provide the service and insurance in accordance with the Contract Documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under the request for proposals.

Proposer hereby agrees to commence Work under this Contract on a date to be specified in the written "Notice to Proceed" of the Owner and to substantially complete the Project within 120 consecutive calendar days thereafter, as stipulated in the specifications. Bidder further agrees to pay as liquidated damages, the sum of \$ 500 for each consecutive calendar day after the established substantial completion date or adjusted date as established by change order.

Bidder acknowledges receipt of Addenda No. _____.
(List all Addenda)

BASE PROPOSAL: Bidder agrees to perform all of the base proposal Work described in the specifications and shown on the plans for the sum of _____ Dollars (\$ _____)

(Amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.)

Alternate No. 1: _____

Add the sum of _____ Dollars (\$ _____)

The Proposer understands that the Owner reserves the right to reject any or all bids and to waive any informality in the bidding.

The Proposer agrees that this bid shall be good for a period of sixty (60) calendar days after the scheduled opening time for receiving bids.

Upon receipt of written Notice of Intent to Award of this bid, Bidder will execute the formal Contract within ten (10) days.

The names and addresses of the entities who will perform the Work identified below, subject to approval of Owner and Architect, if Undersigned is awarded the Contract, are as follows:

Electrical (PWCL Category 16000)

(Name) _____

(Address) _____

Idaho Public Works Contractors License No. _____

Idaho Electrical Contractors License No. _____

FAILURE TO NAME A PROPERLY LICENSED SUBCONTRACTOR IN EACH OF THE ABOVE CATEGORIES WILL RENDER THE BID UNRESPONSIVE AND VOID.

IDAPA 18.01.49 requires that the fire sprinkler contractor/subcontractor be licensed as an Idaho Fire Sprinkler Contractor. The Owner requests the name, address and license numbers of the contractor/subcontractor who will perform the fire sprinkler work, subject to approval of Owner and Architect, if undersigned is awarded the Contract:

(Name) _____

(Address) _____

Idaho Public Works Contractors License No. _____

Fire Sprinkler Contractors License No. _____

Should the listing of subcontractors change due to selection of alternates or other similar circumstances, attach explanation.

Proposer warrants that proposal has been prepared and that any contract resulting from acceptance of this bid is subject to Executive Order 2006-40 (http://gov.idaho.gov/mediacenter/execorders/eo06/eo_2006-40.html) and the Design/Build Construction Contract.

The undersigned notifies that it is of this date duly licensed as an Idaho Public Works Contractor and further that it possesses Idaho Public Works Contractor's License No. _____, and is domiciled in the State of _____.

Dated this _____ day of _____, _____.
(date) (month) (year)

Respectfully submitted by:

(Company)

(Seal - if Proposer is by a corporation)

(Street or PO Address)

(City, State and zip code)

(Authorized Signature)

(Title)

(Telephone Number)

(FAX Number)

Have you remembered to include, Contractor's Affidavit Concerning Alcohol and Drug-Free Workplace and a signed copy of the Bidder's Acknowledgment Statement with your proposal?

**6.1.3.2.1. Attachment 12 – CONTRACTOR’S AFFIDAVIT
CONCERNING ALCOHOL AND DRUG-FREE
WORKPLACE**

Execute and Submit with Bid

**CONTRACTOR’S AFFIDAVIT
CONCERNING ALCOHOL AND DRUG-FREE WORKPLACE**

STATE OF _____

COUNTY OF _____

Pursuant to the Section 72-1717, Idaho Code, I, the undersigned, being duly sworn, depose and certify that _____ is in compliance with the provisions of Section 72-1717, Idaho Code; that _____ provides a drug-free workplace program that complies with the provisions of Title 72, Chapter 17, Idaho Code, and will maintain such program throughout the life of a state construction contract; and that _____ shall subcontract Work only to subcontractors meeting the requirements of Section 72-1717(1)(a), Idaho Code.

Name of Contractor

Address

City and State

By: _____
(Signature)

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

Commission expires:

NOTARY PUBLIC, residing at

FAILURE TO EXECUTE THIS AFFIDAVIT AND SUBMIT IT ALONG WITH YOUR BID SHALL MAKE YOUR BID NONRESPONSIVE.

6.1.3.2.1. Attachment 13 – BIDDERS ACKNOWLEDGMENT STATEMENT

Execute and Submit with Bid

PROPOSER'S ACKNOWLEDGMENT STATEMENT

NOTE: THE INFORMATION CONTAINED HEREIN IS A SUMMARY OF VITAL CONTRACT PROVISIONS AND DOES NOT CHANGE THE CONTRACT DOCUMENTS THAT WILL GOVERN THIS PROJECT.

Division of Public Works Project: DPW Project No. 08-321, Idaho State Liquor Dispensary Automated Storage Retrieval System

By submitting a proposal for this Project, the undersigned proposaer agrees that, if awarded the Contract for construction, Contractor will conform to all conditions and requirements of the Contract, including but not limited to:

- Contractor agrees to comply with conditions pertaining to Sections 44-1001 and 44-1002, Idaho Code, requiring the employment of ninety-five percent (95%) bona fide Idaho residents and providing for a preference in the employment of bona fide Idaho residents and with Executive Order 2006-40 (http://gov.idaho.gov/mediacenter/execorders/eo06/eo_2006-40.html) regarding the employment of persons not authorized to work in the United States.
- Contractor will substantially complete the Work within the time stated in the Contract Documents, or as modified by Change Order(s).
- If the Contractor fails to substantially complete the Project within the time stated in the Contract Documents, or as modified by Change Order, the Contractor agrees that the Owner may deduct from the Contract amount liquidated damages in the amount per calendar day, indicated in the Contract Documents, times the number of calendar days until the Project is Substantially Complete, as defined in the Contract Documents and as determined by the Design Professional.
- The Contractor agrees that the amount allowed for overhead and profit on any Change Order is limited to the amounts indicated in subparagraph 16.3.11 of the Fixed Price Construction Contract Between Owner and Contractor.
 1. For total changes of \$10,000 or less in direct cost, the amount allowed for overhead, profit, bonds and insurance for the Contractor and all subcontractors of any tier combined shall not exceed twenty percent (20%) of direct costs;

- 2. For total changes exceeding \$10,000 in direct cost, the amount allowed for overhead, profit, bonds and insurance for the Contractor and all subcontractors of any tier combined shall not exceed fifteen percent (15%) of direct costs; or
 - 3. The Contractor will determine the amount of overhead and profit to be apportioned between the Contractor and its subcontractor of allowable amounts of overhead, profit, bonds and insurance.
- The Contractor agrees that Change Orders are governed by the Fixed Price Construction Contract Between Owner and Contractor General Conditions of the Contract for Construction including as follows:
 - 1. By the execution of a Change Order, the Contractor agrees and acknowledges that it has had sufficient time and opportunity to examine the change in Work which is the subject of the Change Order and that it has undertaken all reasonable efforts to discover and disclose any concealed or unknown conditions which may, to any extent, affect the Contractor's ability to perform in accordance with the Change Order. Aside from those matters specifically set forth in the Change Order, the Owner shall not be obligated to make any adjustments to either the Contract Sum or Contract Time by reason of any conditions affecting the change in Work addressed by the Change Order that could have reasonably been discovered or disclosed by the Contractor's examination.
 - 2. Any Change Order fully executed by the Owner, Contractor and Design Professional, including but not limited to, a Change Order arising by reason of the parties' mutual agreement or by mediation, shall constitute a final and full settlement of all matters relating to or affected by the change in the Work, including but not limited to, all direct and consequential costs associated with such change and any and all adjustments to the Contract Price and Contract Time. In the event a Change Order increases the Contract Price, the Contractor shall include the Work covered by such Change Order in the Application for Payment as if such Work was originally part of the Project and Contract Documents.

FAILURE TO EXECUTE THIS ACKNOWLEDGMENT MAY MAKE YOUR PROPOSAL NONRESPONSIVE.

I, _____, being duly authorized to bind the
(type or print name of individual)

proposer, _____, does hereby certify that I have fully read
(type or print name of company)

and understand this document and that it highlights certain parts of the Contract that will be entered between the parties and that will govern this Project.

Authorized Signature: _____

Title: _____

Date: _____

END OF BIDDER'S ACKNOWLEDGMENT STATEMENT

7. OPERATIONAL ENVIRONMENT

7.1. System Goals And Objectives

- a) Automate the process of putaway and retrieval of pallet loads.
- b) Minimize ongoing operational costs
- c) Minimize preventative & unplanned maintenance costs
- d) Provide capacity to support a rapid growth of sales and associated inventory
- e) Utilize the 2007 expansion for high density storage. Storage system design to maximize storage density of varying pallet heights and partial pallets
- f) Create high productivity tasks for split case replenishment activities. Retrieve reserve pallet from ASRS to replenishment pick station and return residual pallet to ASRS. Provide mechanized transport of replenishment cartons from carton pickstation to existing split case carton flow pick area for replenishment.
- g) Provide ergonomic and productive replenishment pickstation design
- h) Minimize full pallet and split case replenishment cycle time
- i) Minimize operational impact and ongoing operational cost of any required slave pallets or slave boards
- j) System flexibility to handle variance in flow demands and intraday peaks.
- k) Ability for future expansion

7.2. General Description of Operations

After receipt, pallets will be inducted to the ASRS system. If a pallet is not a split case SKU, pallets will be retrieved from the ASRS when they are required to replenish pallet pick positions on the floor level of the low bay warehouse. If a SKU is a split case SKU, the ASRS system will deliver a pallet to a picking station when a replenishment is required. At the pick station the required loose cases will be picked from the pallet. The loose cases will be delivered to the split case picking area on the existing mezzanine within the existing warehouse and the residual pallet inventory will be re-inducted to the ASRS.

7.2.1. Receiving

Loads arrive and are unloaded to the dock. Typical truck load would include 26 pallets on slip sheets. Loads are placed to warehouse pallets during receipt. On any given load between 10-50% of inbound materials will need manual breakdown to ensure a single SKU per received pallet. Each inbound pallet will receive a LPN. Currently loads are either manually stretch wrapped or the top tier is taped for pallet stability.

WMS shall minimally provide the ASRS control system with an inventory record for received LPNs. The inventory record will provide pertinent information about the load to be stored so the ASRS control system can determine an appropriate location to store pallet within the ASRS. Conversely, the WMS shall minimally provide the ASRS control system with LPNs for inventory it wants to be retrieved from the ASRS. The ASRS control system will utilize this information to make high level material movement decisions, command sequencing, priority changes, etc. The ASRS control system will manage inventory by location by LPN with the ASRS. The WMS will essentially be treating the ASRS as a single logical location within the distribution center.

7.2.2. Storage

The AS/RS system will serve as the primary storage system, with overflow storage occurring in the existing low bay warehouse and rack system.

7.2.3. Carton Picks

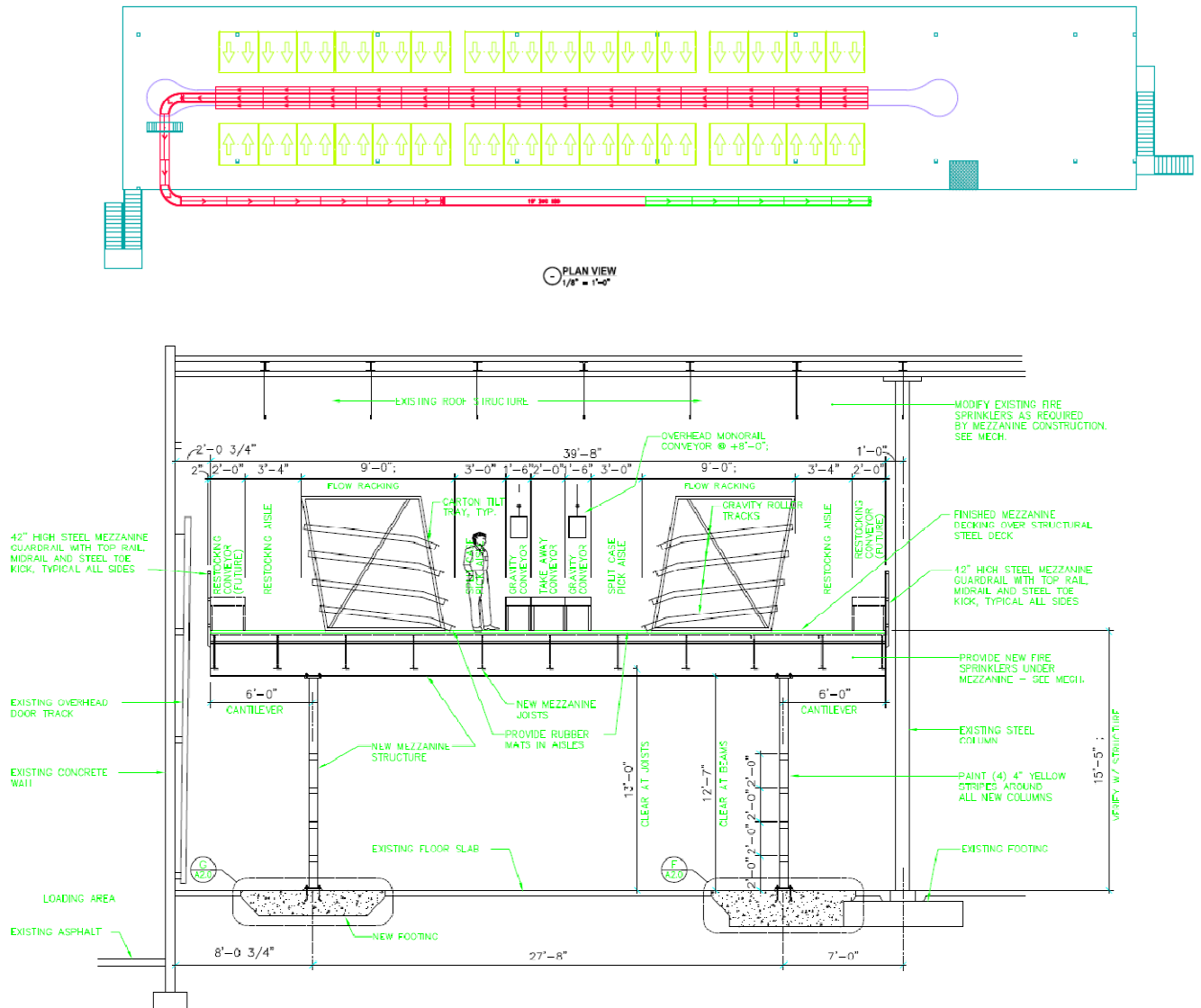
Carton picking is applicable to any SKU which is not picked in less than case quantities. Pallets will be retrieved from the ASRS when a replenishment task is generated by the WMS to retrieve a pallet by LPN from storage. Operators will identify the pallet by scanning LPN to the WMS after it has been retrieved from the ASRS output location. The WMS will direct the transfer of the pallet to the SKU's primary pick position on the ground or second level for picking. Operators pick discrete orders using powered single pallet jacks and drop completed orders off in the shipping staging area under direction from the WMS.

7.2.4. Split Case Picking

Split case SKU's are ordered and shipped in less than case quantities. Split case picking occurs on the existing carton flow picking system on the existing mezzanine. Picking operators retrieve corrugate shippers from an overhead monorail system. The picker then pushes the shipper down a gravity flanker, traveling to the SKU's required for that carton. Bottles are picked from the carton flow rail to the shipper. When the shipper is complete, the shipper is transferred from the flanker to the trunkline for transport to the ground level for consolidation with the rest of the order.

Although the Supplier has freedom in the conceptual design, the following flow has been envisioned for split case SKU's in the proposed system. Reserve storage for the split case items will be stored in the ASRS. A replenishment task generated by the WMS would initiate a pallet retrieval by LPN from the ASRS. Operators will identify the pallet by scanning an LPN to the WMS after it has been retrieved from the ASRS output location. The WMS will direct the transfer of the pallet to the SKU's pick station. A pick operator would select cartons from the pallet for replenishment of the carton flow pick positions. The loose cartons would be transferred into the carton flow bays. The residual pallet would be moved back to the ASRS. The WMS shall update the ASRS control system with new inventory record for the LPN.

Existing Split Case Pick Mezzanine:



7.2.5. Consolidation Area / Shipping

Orders are consolidated in the outbound staging area. Completed full carton pallets are merged with completed split case cartons arriving from the mezzanine. Orders are verified and stretchwrapped for shipment. Pallet loads are loaded by stop onto trailers for delivery.

7.3. Drawing List

7.3.1. Existing Facility – AutoCAD

- 06142_A00.dwg – Drawing A0.0 – Cover Sheet
- 06142_A10.dwg – Drawing A1.0 – Site Plan
- 06142_A20.dwg – Drawing A2.0 – Floor Plan
- 06142_A20.dwg – Drawing A2.1 – Enlarged Plans, Details, & Door Schedule

06142_A30.dwg – Drawing A3.0 – Building Elevations

06142_A40.dwg – Drawing A4.0 – Building Sections

06142_A50.dwg – Drawing A5.0 – Wall Sections

06142_A50.dwg – Drawing A5.1 – Wall Sections

06142_A60.dwg – Drawing A6.0 – Roof Plan

7.3.2. Fire Suppression – PDF

ISLD 07020 FP1of3 As-Built.PDF – Job 07020 Sheet FP1 – Fire Service Plan

ISLD 07020 FP2of3 As-Built.PDF – Job 07020 Sheet FP1 – Expansion overhead sprinkler plan and hypothetical rack sprinkler plan

ISLD 07020 FP3of3 As-Built.PDF – Job 07020 Sheet FP1 – Fire Pump Plan

ISLD Mezz FP1.pdf – Job 0819 Sheet FP1 – Overall Existing Fire Sprinkler Plan

ISLD Mezz FP2.pdf – 0819 FP 2 of 2 – New Lower Mezzanine Fire Sprinkler Plan

7.3.3. Existing Mezzanine – AutoCAD

ILCB_01_00A_D_R-.dwg – ILCB_01_00A_D_R- – Split Case Picking Mezzanine

07221_a00.dwg – A0.0 – Mezzanine Cover Sheet

07221_A10_11.dwg – A1.0 – Mezzanine Footing / Floor Plan

07221_A10_11.dwg – A1.1 – Mezzanine Plan

07221_A20.dwg – A2.0 – Mezzanine Section

7.3.4. 2007 Expansion – Facility – AutoCAD (Site Plan PDF)

A00.dwg – A0.0 – Cover Sheet

A10.dwg – A1.0 – Site Plan

A20-21.dwg – A2.0 – Floor Plan

A20-21.dwg – A2.1 – Enlarged Plans, Details, & Door Schedule

A30.dwg – A3.0 – Building Elevations

A40.dwg – A4.0 – Building Sections

A50_51.dwg – A5.0 – Wall Sections

A50_51.dwg – A5.1 – Wall Sections

A60.dwg – A6.0 – Roof Plan

C10.dwg – C1.0 – Site Grading & Drainage Plan

EC11.dwg – EC1.1 – Mechanical Compliance / Requirements Documentation

M11.dwg – M1.1 – Mechanical Plan
M21.dwg – M2.1 – Mechanical Plan
S10.dwg – S1.0 – General Structural Notes
S11.dwg – S1.1 – Roof Framing Plan
S20_32.dwg – S2.0 – Foundation Details
S20_32.dwg – S2.1 – Foundation Details
S20_32.dwg – S3.0 – Roof Framing Details
S20_32.dwg – S3.1 – Roof Framing Details
S20_32.dwg – S3.2 – Bracing Details
ISLD Site Plan.pdf – New Construction Site Plan

7.3.5. 2007 Expansion – Fire Suppression

FP1.dwg – FP1 – Fire Protection Plan

7.3.6. 2007 Expansion – Electric – AutoCAD

E11.dwg – E1.1 – Electrical Power Plan
E21.dwg – E2.1 – Electrical Lighting Plan
E31.dwg – E3.1 – Scheduling and One-Line Diagram
EC20.dwg – EC2.0 – Lighting Compliance / Application Documents

7.4. Site Conditions

Proposers shall carefully examine the site to obtain firsthand knowledge of existing conditions. No extra costs will be allowed due to any claim of lack of knowledge for conditions seen or unforeseen that can be determined by examining the site and the RFP Document.

7.5. Warehouse Addition Slab Capacity

Idaho State Liquor Dispensary Warehouse Addition, constructed in 2007, was designed to support pallet racking containing full pallets of liquor bearing directly on the concrete floor slab. The slab was designed to support point loads from the pallet racking vertical legs. The assumed dead load plus live load from each leg was 22,000 pounds based upon racks seven pallets high with an average weight of 3,000 lbs/pallet plus weight of racking. The legs were assumed to occur every four feet on center to correspond to a typical size pallet and rack system. The feet were assumed to be steel and a minimum of 3.5 inches square but will likely need to be larger to accommodate bolting requirements.

The floor slab was designed as a continuous mat footing ten inches thick with (2) #6 bars at 18 inches on center each way at the center of the slab (the top of the reinforcing bars are approximately 4-5/8 inches down from the top surface of the slab).

Proposed racking supports may be located at any point on the slab as long as the minimum spacing of 4 feet on center each way and maximum loading of 22,000 lbs are complied with. See pages 16 and 17 of the attached structural calculations for the original slab design and the memo on page 45 dated 4-15-07 for the modified rebar location "as built".

The compressive strength of the concrete was specified to be a minimum of 4,000 pounds per square foot. The concrete placed was tested and the test cylinders met or exceeded the compressive strength requirements at 28 days.

The surface of the slab was treated with a dry shake hardener to improve durability under forklift traffic.

7.6. Warehouse Addition Slab Flatness/Levelness

The existing addition concrete slab was specified to be finished to the following tolerances to produce a "very flat" floor surface according to ASTM E 1155:

Overall values of flatness: F (F) 45.

Overall values of levelness: F (L) 35.

Minimum local values of flatness: F (F) 30.

Minimum local values of levelness: F (L) 24.

The completed slab was tested by Materials Testing, Inc. (MTI) of Boise, Idaho and was certified to conform to the flatness and levelness required values specified according to ASTM E 1155. See the attached Testing reports prepared by MTI Dated May 1, 2007, and May 2, 2007.

Imperfections in flatness and levelness and will exist in a "very flat" floor surface and shimming of racking and other equipment may be required.

7.7. Existing Warehouse Mezzanine Structural Capacity

The warehouse mezzanine, constructed in 2008, was designed to accommodate the potential storage of full pallets of liquor stacked one high. The following loading requirements were included in the design and construction of the mezzanine system:

Dead Load: 250 lbs /s.f.

Point Load: 35 lbs / sq. in.

Rolling Load: Manual pallet jack w/ 3000 lb pallet load

7.8. Original Warehouse Walls

The need may arise in the design and installation of the new ASRS to create openings in the wall between the original warehouse and the 2007 addition. The original warehouse walls are 8 inch thick pre-cast tilt up reinforced concrete walls. Limited holes may be saw cut in the existing tilt up concrete walls without additional reinforcing when reviewed and approved by a structural engineer licensed in the State of Idaho. Two such openings were made for forklift access during the construction of the building addition without additional reinforcing being required. These openings were reviewed and approved by structural engineer Steve Call of Call Engineering of Boise, Idaho.

7.9. Access to Warehouse Addition

Access to the warehouse addition is available through an 8' wide x 10' high overhead door in the south end of the west wall. If a larger opening is required the exterior metal wall panels could be temporarily be removed. The following metal wall panels are installed on the building exterior:

Creased-Profile, Concealed-Fastener Metal Wall Panels: Formed with vertical panel edges and center-creased pan between panel edges; with flush joint between panels.

See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers. Retain one of first two subparagraphs and list of manufacturers below. See Division 1 Section "Product Requirements."

Shadow Rib manufactured by MBCI.

Material: Zinc-coated (galvanized) steel sheet, 24 ga. nominal thickness.

Exterior Finish: 2-coat fluoropolymer.

Panel Coverage: 16 inches (400 mm).

Panel Depth: 3 inches (75 mm).

The panels were installed in two sections with a horizontal joint at approximately 32 feet above finish floor. The panels are supported by steel horizontal girts at 7'-4" on center. The walls are insulated with R-19 fiberglass batts and covered with metal liner panel up to the height of the second girt at approximately 14'-9". The insulation is covered with a separate vapor barrier above the liner panels. To remove wall panels for access these wall assembly components would need to be removed and the contractor would be required to restore the building to its original condition after loading is complete. Temporary security whether proofing measures approved by the owner would need to be installed while the panels were removed to prevent unauthorized entry or damage to the building. The girts and bracing and other components of the steel structure may need to be removed or cut and could only be undertaken when approved by a structural engineer licensed in the State of Idaho. Removal of panels for access would also required the removal and reinstallation of other affected building components including but not limited to wall mounted electrical conduits and devices.

7.10. Environment

Equipment shall be installed in a warehouse environment with a temperature range of 50 to 105 degrees Fahrenheit and relative humidity of 55 to 95 percent. The facility will be equipped with venting and have a heating system.

7.11. Seismic Load Design

The Geographic Area that the System will be installed is Boise, Idaho. All components of the system are to be designed for a seismic load appropriate to the location of installation. The Supplier shall be responsible for verifying the seismic zone rating and providing equipment that is accordingly designed.

7.12. Electrical Service

The electrical service that was installed as part of an addition in 2007 is a 200 ampere, 480/277 volt, 3 phase, 4 wire electrical service (Panel HA). This 480 volt system has a total remaining spare capacity of 83 KVA, and the sub-fed 208/120 volt, 3 phase, 4 wire (Panel LA) system has a capacity of 50 KVA. The largest breaker that can be installed into either panel without modification to the panels is a 100 ampere, 3 phase. This electrical service is located in the southwest corner of the original building, near the northwest corner of the new warehouse addition that was built to house the ASRS.

7.13. Fire Suppression Service

See the narrative below addressing Fire Suppression Service. Note the current water pressure, static 75psi, with a flow of 3,000 gpm at 20 psi residual pressure. Any questions during the procurement process should be directed to Jason Gryzkowiec at St. Onge Company.

March 31, 2009

Hutchinson-Smith Architects
270 N 27th Street
Boise, Idaho 83702
Attention: Bob Smith

Reference: ISLD AS/RS Warehouse Upgrade

Bob,

We have developed a narrative for the fire sprinkler systems at the IOSLD facility as previously discussed. Please review the attached narrative and let me know if you have any questions or concerns. We have provided this document in MS Word format so that you can easily copy and format as necessary. The narrative is as follows:

A. Existing Fire Sprinkler Systems:

1. The existing facility is equipped throughout with water based automatic fire sprinklers. The existing fire sprinkler system(s) have been installed and maintained by Treasure Valley Fire Protection, Inc. The General Contractor and/or AS/RS Contractor are encouraged to contact Treasure Valley Fire Protection, Inc. for additional details regarding the existing systems and any future additions required under this project. Contact information: Treasure Valley Fire Protection, Inc. Greg Patrick or Ron Stenquist, 2731 S Saturn Way Boise, Idaho 83709, Phone (208)362-1888 Fax (208)362-2207.
2. The most recent water supply of 75 psi static, 20 psi residual at 3000 gpm, was provided in July of 2007 by United Water of Idaho. One existing underground 10" fire service main extends onto the property and is split into two separate services. The first, an 8" dedicated underground fire sprinkler service, extends from the 10" water stub to the original fire protection riser room at the east side of the original building. A double check backflow prevention device is present, supplying 2 wet pipe ceiling sprinkler systems and one wet pipe in-rack sprinkler system throughout the main pallet rack storage warehouse. A hydraulic design density of .32 gpm per square foot over a hydraulic remote area of 2000 square feet (.32/2000) is present at the ceiling with 8 supplementary in-rack sprinklers flowing at 30 gpm each. Reliable Model G SSU 8.0k 286 degree ceiling sprinklers are spaced at 100 square feet maximum spacing. Additional sprinklers are present below the north mezzanine structure. The overhead ceiling system extends below the mezzanine to provide ordinary Hazard Group I protection with a design density of .15/1500 and sprinklers spaced at 130 square feet maximum. Light Hazard sprinklers are provided throughout the office areas with a design density of .10/1500 and a maximum sprinkler spacing of 225 square feet. An additional 10" fire service extends from the water stub, splitting and reducing to 8" near the northeast corner of the building. The 8" services supply fire hydrants around the perimeter of the facility. A second 8" fire sprinkler service extends from the hydrant service, into a riser room located at the north side of the 2007 building addition adjacent to the AS/RS Warehouse. A double check backflow prevention device and electric fire

pump rated 1500 gpm at 66 psi supplies an existing ceiling sprinkler system. The existing ceiling system throughout the AS/RS Warehouse was originally designed to provide a density of .45/2000 at the ceiling with a future supplemental in-rack sprinkler system. Reliable J168 SSU 16.8k 212 degree ceiling sprinklers are spaced at 100 square feet maximum spacing. The original system design is based on group A unexpanded cartoned plastics (class IV commodities elevated one level to accommodate future plastic pallets) stored palletized in open racks per NFPA 13, 2002 edition. The design included multiple levels of supplemental in-rack sprinklers installed throughout the longitudinal flu-spaces supplied from a separate future in-rack sprinkler system riser. Preliminary calculations were prepared simulating in-rack sprinklers hydraulically balanced with the ceiling system. There is currently space in the riser room to allow for the future in-rack riser assembly.

B. AS/RS Sprinkler System Addition:

1. **Fire Sprinkler Contractor Qualifications:** The Fire Sprinkler Contractor, further referred to as the Contractor, shall have a valid Idaho Fire Protection Sprinkler Contractor's License, issued by the Idaho State Fire Marshal's office and a valid Idaho Public Works License prior to bidding this project. The Contractor shall be domiciled (Home Office) in the State of Idaho and shall have in its direct employment at the Home Office, a NICET Certified Senior Engineering Technician (or Fire Protection Engineer with appropriate Fire Sprinkler knowledge). The Fire Sprinkler Contractor shall show a minimum of 5 years experience and shall have performed at least 5 previous successful projects similar in scope to this project.
2. **Shop Drawings and Submittal Documents:** At the beginning of the project, the Contractor shall obtain a completed Owner's Certificate from the Owner as required by NFPA 13. The Contractor shall prepare detailed shop drawings, hydraulic calculations, and submittal data under the direct supervision of the NICET Certified Senior Engineering Technician for submittal to the State Fire Marshal and to the Owner for review. The submittal documents shall comply with the requirements of NFPA 13, IBC, IFC, and the Idaho State Fire Marshal as necessary. The Contractor will be responsible to make any noted modifications to the documents as necessary and resubmit for final approval prior to installation. The Contractor shall bare full responsibility for compliance with the RFP requirements, NFPA requirements, IBC/IFC requirements and State Fire Marshal requirements as necessary to provide a complete and operational system.
3. **Water Supply:** The Contractor shall contact United Water Idaho and verify that the water supply that was available during the 2007 addition project is currently available and shall obtain an updated letter confirming such.
4. The existing water supply, fire pump, and ceiling system for the AS/RS project area have been established based on the previously described criteria as defined in the 2002 Edition of NFPA 13. This project will be updated based on the current criteria in the 2007 edition of NFPA 13 and the 2006 edition of IBC / IFC. It is important to note that changes have occurred between the original system criteria found in the 2002 Edition of NFPA 13 and the current 2007 Edition of NFPA 13.

The Contractor will be responsible to make any necessary revisions to the original supply and existing system(s) as necessary to comply with the current requirements.

5. The ceiling system shall be capable of producing a design density of .45/2000 while simultaneously flowing 8.0k in-rack sprinklers as required in Chapter 17 of NFPA 13. In-rack sprinklers and ceiling sprinklers shall be hydraulically balanced as required. NFPA 13 2007, Chapter 17 17.3 provides in-rack sprinkler options based on the presence of solid barriers at different levels within the racks or no barriers at all. The presence of barriers will affect the location and overall quantity of in-rack sprinklers that are required. The Contractor shall work directly with the AS/RS rack contractor to determine the preferred design build in-rack design concept. In-rack piping, flu sprinklers and face sprinklers shall be designed and installed so as to minimize possible conflicts with pallet loads and AS/RS equipment. In-rack sprinklers shall be equipped with sprinkler guards and water shields as required. In-rack piping shall be equipped with auxiliary drain valves located near the end of the rack structure in an accessible location. Exact in-rack piping arrangements shall be coordinated with the AS/RS contractor and approved by the Owner prior to installation. The Contractor is responsible to hydraulically verify all portions of the existing supply, equipment, and over head systems and make any modifications that are required for a complete and operational system.
6. Materials:
 - a. Black steel piping is acceptable. Piping shall be schedule 40, schedule 10, or approved flow pipe conforming to the appropriate ASTM ratings and NFPA 13. Thread-able thin wall piping is not allowed. All new piping shall have a Corrosion Resistance Ratio (CRR) of 1.0 or greater. The Fire Sprinkler Contractor shall provide data confirming the CRR for proposed piping. Piping shall be of new condition and shall be free from rust or corrosion at the time of installation.
 - b. Piping shall be connected using approved threaded fittings or grooved fittings and couplings as applicable. Grooved fittings and couplings shall be Victaulic brand (or approved equal), matching the original installation. Plain end piping methods are not allowed.
 - c. Sprinkler heads shall be Reliable brand (or approved equal) and shall be compatible with the original shell system requirements.
 - d. Chrome plated or red coated sprinkler guards and shields shall be listed to be used specifically with the in-rack sprinkler heads.
 - e. Hangers and sway bracing equipment shall conform to NFPA 13 requirements. Specific attachments and hanger criteria shall be coordinated with the AS/RS contractor. Structural verification shall be provided by the AS/RS contractor prior to submittal of sprinkler shop drawings
 - f. New Victaulic control valves, Victaulic commercial riser manifold (flow switches, gauges, etc.) and associated riser equipment shall be the same as the existing riser equipment so as to maintain a matching installation.
 - g. New signage similar to the original signage shall be provided for all control valves, drain valves, inspector's test valves and equipment as required.

7. Close-Out Requirements: At completion of the project, the Contractor shall remove all unused material, properly dispose of trash and debris, and shall properly clean up any stains or marks caused to the building or site by the process of installation. Prior to turning over the system(s) to the Owner, the Contractor shall insure that the finished installation is complete, operational, clean, and of new condition. The Contractor shall provide updated As-built documents at the completion of the installation. The Contractor shall provide qualified personnel to perform final testing and shall provide Owner Training of the system(s) installed. The Contractor shall provide completed and signed NFPA 13 Materials and Test Certificates for the installation and shall provide documentation that the system(s) have been installed as required by the approved documents.

End of Section.

If copies of the original sprinkler documents for this area are to be provided with the RFP it should be clearly noted that they are provide for information only and are not necessarily to be used in the development of the new AS/RS protection without fully reviewing the current requirements. This is due to the changes between the 2002 edition and the 2007 edition of NFPA 13, as indicated in the narrative.

Please let us know if you need anything further.

Sincerely,
Treasure Valley Fire Protection, Inc.



Greg Patrick, S.E.T.
Vice President

8. STORAGE AND THROUGHPUT REQUIREMENTS

8.1. Physical Characteristics

This section describes the physical characteristics of the loads to be handled by the ASRS and the conveyor system.

Pallets to be inducted into the ASRS:

- Max pallet weight 2,800 pounds
- Currently merchandise will sit on a conventional 40" x 48" wooden pallet. An allowance of up to one inch of overhang should be made on each side of the pallet making the maximum product footprint 42" x 50"
- Pallet height description:
 - 80% of merchandise is received on pallets with a pallet height greater than 50"
 - Maximum pallet height is 72" including the pallet

Cartons that will be retrieved from the ASRS will have the following characteristics:

Typical Carton: 11.27" length x 13.82" width x 9.9" height and weigh 30 pounds

Maximum case height: 24.6-inches

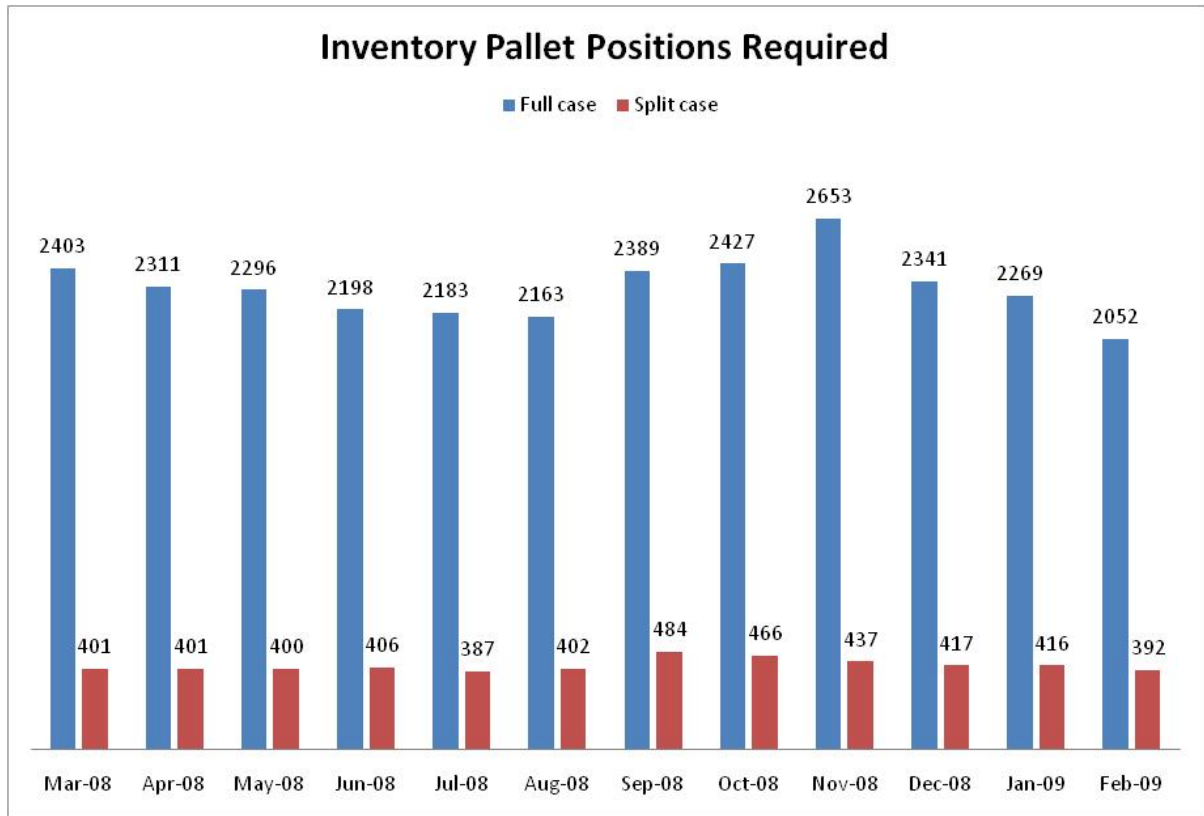
Maximum case width: 18.0-inches

Maximum case length: 23.3-inches

Maximum case weight: 70 pounds

8.2. Storage Inventory

The ASRS system is required to accommodate 2,800 pallets. The existing warehouse currently has 2,800 pallet positions.



Twelve months of SKU level historical inventory data is available in the available file [ISLD HISTORICAL DATA.xls].

It is expected that inventory will grow at a rate of 5.9% annually moving into the future.

8.3. Throughput of System

The following task types are anticipated:

Receiving Pallets Into System – After receipt, SKU’s will be inducted into storage in the ASRS

Full Case Replenishment Pallet Out – For full case SKU’s, pallets will be retrieved from the system to be transferred to pick positions within the low bay warehouse

Split case Replenishment Loose Cartons Out – For split case SKU’s, pallets will be retrieved by the ASRS and transferred to pick stations, where cartons will be picked from the pallet to replenish split case carton flow primary pick positions. The residual pallet will be returned into the ASRS.

Throughput Considerations:

- Based on seasonal volume, it has been determined that the period of October through December should be considered for design.
- The Idaho State Liquor Dispensary currently operates on a single shift, with 7.0 effective working hours per day.
 - The dispensary will consider split shifts or multiple shifts to increase the effective working hours per day, but would prefer to maintain a single shift operation for as long as possible.
- Historical unit growth over the last 10 years has averaged 5.9% annually. It is expected that this growth will continue into the future and it is the goal of Idaho State Liquor Dispensary for the ASRS to support operational growth well into the future.

The table below details the number of tasks that would have been required October through December of 2008:

	est rec plts round up total for day (one way)	total daily fc calc replens (one way)	total daily sc calc replens (two ways)	total
10/1/2008	54	9	4	67
10/2/2008	87	44	51	182
10/3/2008	77	47	37	161
10/4/2008	0	0	0	0
10/5/2008	0	0	0	0
10/6/2008	100	43	39	183
10/7/2008	35	44	47	126
10/8/2008	55	47	46	147
10/9/2008	38	48	36	121
10/10/2008	26	50	45	121
10/11/2008	0	0	0	0
10/12/2008	0	0	0	0
10/13/2008	76	48	43	167
10/14/2008	147	63	57	267
10/15/2008	153	41	33	226
10/16/2008	236	57	61	355
10/17/2008	76	55	58	188
10/18/2008	0	0	0	0
10/19/2008	0	0	0	0
10/20/2008	42	56	60	158
10/21/2008	97	45	55	197
10/22/2008	27	65	74	166
10/23/2008	144	64	81	289
10/24/2008	53	45	41	139
10/25/2008	0	0	0	0
10/26/2008	0	0	0	0
10/27/2008	96	79	88	263
10/28/2008	28	47	45	120

	est rec plts round up total for day (one way)	total daily fc calc replens (one way)	total daily sc calc replens (two ways)	total
10/29/2008	48	59	74	181
10/30/2008	152	65	52	268
10/31/2008	104	54	48	205
11/1/2008	0	0	0	0
11/2/2008	0	0	0	0
11/3/2008	53	40	36	129
11/4/2008	90	51	43	184
11/5/2008	123	69	47	239
11/6/2008	126	41	31	198
11/7/2008	94	45	40	180
11/8/2008	1	14	13	27
11/9/2008	0	0	0	0
11/10/2008	173	44	44	261
11/11/2008	0	52	45	97
11/12/2008	77	70	52	199
11/13/2008	90	52	33	174
11/14/2008	163	58	33	254
11/15/2008	0	0	0	0
11/16/2008	0	0	0	0
11/17/2008	133	44	28	205
11/18/2008	171	56	36	264
11/19/2008	160	48	43	251
11/20/2008	65	56	33	154
11/21/2008	155	68	43	267
11/22/2008	0	13	8	21
11/23/2008	0	0	0	0
11/24/2008	63	34	24	121
11/25/2008	75	50	36	161
11/26/2008	36	35	19	89
11/27/2008	0	0	0	0
11/28/2008	1	35	24	61
11/29/2008	0	0	0	0
11/30/2008	0	0	0	0
12/1/2008	131	49	30	210
12/2/2008	93	55	40	188
12/3/2008	68	41	34	143
12/4/2008	85	66	44	195
12/5/2008	98	53	32	182
12/6/2008	0	0	0	0
12/7/2008	0	0	0	0
12/8/2008	75	50	42	166
12/9/2008	90	44	25	159
12/10/2008	53	66	45	165
12/11/2008	55	55	30	140
12/12/2008	47	72	47	166
12/13/2008	0	0	0	0

	est rec plts round up total for day (one way)	total daily fc calc replens (one way)	total daily sc calc replens (two ways)	total
12/14/2008	0	0	0	0
12/15/2008	80	36	25	141
12/16/2008	17	65	44	127
12/17/2008	60	56	44	160
12/18/2008	86	48	30	164
12/19/2008	137	74	50	261
12/20/2008	0	0	0	0
12/21/2008	0	0	0	0
12/22/2008	151	58	52	261
12/23/2008	31	57	40	128
12/24/2008	0	47	40	87
12/25/2008	0	0	0	0
12/26/2008	0	59	43	103
12/27/2008	0	32	37	69
12/28/2008	0	0	0	0
12/29/2008	6	48	35	89
12/30/2008	18	44	39	101
12/31/2008	32	66	55	153

8.3.1. Throughput Metric Summary

The following table summarizes the average and maximum throughput per day by SKU type for October through December 2009:

	Full case	Split case	Grand Total
Number of SKUs (NABCA)	1452	450	1902
Avg Bottles / Day Shipped	24,598.2	4,777.4	29,375.6
Avg Bottles / Day Received	24,267.3	3,989.3	28,256.6
Avg Equivalent Cartons / Day Shipped	2,428.3	181.7	2,610.0
Avg Equivalent Cartons / Day Received	2,393.3	145.6	2,538.9
Avg Equivalent Pallets / Day Shipped	36.9	3.7	40.6
Avg Equivalent Pallets / Day Received	36.3	2.8	39.2
Max Bottles / Day Shipped	52,714.0	10,553.0	63,267.0
Max Bottles / Day Received	102,036.0	24,288.0	126,324.0
Max Equivalent Cartons / Day Shipped	5,198.0	528.9	5,726.9
Max Equivalent Cartons / Day Received	10,513.0	970.0	11,483.0
Max Equivalent Pallets / Day Shipped	78.6	12.2	90.8
Max Equivalent Pallets / Day Received	163.1	28.9	191.9

8.3.2. Data File isld_whs.xls

This data file is available on the project e-room.

8.3.2.1. Isld_whs rev1 Tab

Warehouse Detailed Data. This tab shows basic information by SKU including description, Category (ID), bottles per carton (for both store packs and warehouse packs), cartons per tier, bottles and cartons per pallet, bottle size, case weight, and whether the SKU is sent to the store in full case or split case quantities. The table includes shipping and receiving quantities in bottles from October 2008 – December 2008. These dates were chosen for the study because it is the busy time of year, which makes it an appropriate time frame on which to base the design. In addition, the month-end inventory history from March 2008 – February 2009 is included on the table, as well as a calculated average inventory during that time.

8.3.2.2. Monthly inv Tab

Monthly Inventory for March 2008 through February 2009. This tab provides the historical inventory levels for each SKU. The original inventory by bottle is used to calculate an inventory in pallets, as well as a rounded-up pallet inventory by SKU. This rounded-up inventory is used to estimate the number of pallet positions required by SKU. This estimates the number of pallet positions required to hold that SKU at the end of each month in the inventory history. The top of the table shows the total bottles and pallets in inventory at the end of each month.

8.3.2.3. SC replen Tab

Split-Case Replenishment. This tab focuses on the SKUs that are sent to the store in carton quantities smaller than the Warehouse Pack quantities. This tab calculates the estimated Split-Case replenishment tasks required. It takes the shipping quantity of the split-case SKUs, divided by the standard bottles per warehouse carton, and divides by 6. The assumption is that 6 cartons will be the average number of cartons per SKU replenishment. This calculation estimates the number of replenishment moves that will be required for each split-case SKU every day from October 2008 – December 2008.

8.3.2.4. FC replen Tab

Full- Case Replenishment. This tab focuses on the SKUs that are sent to the store in full pallet quantities. This tab calculates the estimated daily pallet-moves required. It estimates that every pallet that is shipped from the facility will cause a pallet to be moved from the ASRS storage.

8.3.2.5. Receiving moves Tab

Daily Pallets Received. This tab calculates the number of pallets that are received on a daily bases. This is calculated by taking the bottles received each day, dividing this by the number of bottles per pallet, and rounding up to determine how many pallet moves are required for each SKU each day. The total inbound pallets are then summarized at the top of the table.

8.3.2.6. Summary Tab

Daily Moves Summary. This tab combines the number of pallets received per day, the number of full case replenishments per day, and the number of split-case replenishments per day to calculate the total number of tasks.

8.3.2.7. Historical Growth Tab

Annual Sales Growth. This tab shows the annual sales revenue from fiscal 1999 through 2008. This shows an average annual sales growth of 7.9% for that time period.

8.4. ASRS Control System Requirements

8.4.1. Data Retention During WMS Failure

The ASRS Control System shall continue to route the received items to their respective delivery point and retain the transaction complete records until the WMS is back on line.

8.4.2. Operator Interface

The Vendor shall provide at least one (1) EOAC operator interface work station (View Station). This View Station shall be configured with the required software and hardware to communicate to the ASRS Control System.

The EOAC shall provide an operator interface capable of presenting, at a minimum, the following real time data.

- Load status and destination
- Input and output lane status
- Pick station status
- Throughput rates
- Fault status
- Crane statistics

The operator interface shall support the following input from the operator:

- Startup/Shutdown SRM System
- Update Crane Status
- Update Input/Output Lane Status

8.5. Implementation Expectations For Control Systems

This section highlights some of the standards and guidelines that are expected to be adhered to during the succeeding implementation phase. The intent is to provide an operating SRM System that satisfies the intent of this document and that allows for proper monitoring of changes developed during the detail design phase.

8.5.1. Software System Documentation Requirements

Any procurement of a end of aisle control system package will be inclusive of the level of documentation that is supplied and/or created by the Vendor. Since most installations require some level of customization, documentation of these changes is very important. The following describes the various levels of documentation for control systems necessary.

8.5.1.1. Functional System Description (FSD)

The selected Vendor shall prepare a document that provides a functional overview of the operational requirements of the proposed SRM system. This initial document will discuss basic design concepts and detail the various functional components of the SRM system. It will also provide high-level structured data flow diagrams and system architecture for review by the Owner and/or Owner's Agent.

8.5.1.2. Detailed System Design Specification (DSDS)

The DSDS is defined as a highly detailed description of the software system. The DSDS shall provide details of what is to be accomplished by the system, identify interfaces and task modules, defines the data management philosophy, provide system flow charts and confirm the system operation and equipment and computer hardware configuration. The DSDS should specify at least the following:

- Communication Protocols
- Interface Layouts
- Processing Logic
- Validation/Edits/Checks
- Error Messages
- Controller/Computer Configuration, including supplied Software
- System Equipment Layout
- Performance Standards/Transaction Rates

8.5.1.3. Computer Program Listings

Computer program listings are defined as all source documents for the application and/or control system software. The listings should be self documenting and identify the function of each program and its purpose in the system. Variable names should be selected to meaningfully describe the element they represent.

8.5.2. Implementation Issues

The following sections define considerations for installation and acceptance of the software and/or automation control systems.

8.5.2.1. System Reviews

Throughout the procurement, development, and installation cycle, it is necessary to continuously monitor progress against a schedule to ensure delivery of a working system at the agreed time. It is equally important to provide interim tests and checks of the software products to prevent unexpected problems at system start-up.

The review and testing schedule should be developed to meet the implementation schedule required for the project. There are several types of activities and meetings that should be part of the review process. Each is defined in the following sub-sections.

8.5.2.2. Development Reviews

A Development Review needs to be held to review the FSD. The objective of the meeting will be to ensure the accuracy and completeness of the specifications and the understanding and clarification of all requirements. Typical agenda items will include the review of high level context diagrams, structure diagrams, high level flow charts, preliminary data requirements, and implementation plan.

8.5.2.3. Informal Reviews

Informal Reviews may be needed to evaluate the design of the customized software before coding begins. These reviews are essential in order to make sure that the design is adhering to the development standards and, more importantly, completely addressing the FSD requirements. Typical agenda items will include review of application, discussion of interfaces, adherence to standards for design, and schedule for completion.

A list of significant items from the meetings should be issued and resolved before further work is done. Departures from the FSD will be noted and a Development Review meeting should be scheduled to resolve the discrepancies and document the changes that may result.

8.5.3. System Testing

Software tests should be scheduled at the time of procurement and/or at the completion of customized coding. Several types of tests will be required depending on the function(s) of the application.

8.5.3.1. Functional Testing

The purpose of functional testing is to demonstrate that the application module or system is performing correctly. Specific test cases and test data will be used to exercise the software and demonstrate functionality. Idaho State Liquor Dispensary will provide the test data and shall identify the required outputs.

8.5.3.2. Recovery Testing

The purpose of this type of testing is to demonstrate system recovery from errors or failures without loss of in process data. Typical recovery tests will evaluate the performance of the system or modules to power failures, hardware failures, communications errors, or operating system problems.

8.5.3.3. Performance Testing

The purpose of this type of testing is to evaluate the ability of the software and hardware to handle the volume of data and transaction rates. This testing will require the simulation of transaction loads and timing to demonstrate system capability. In order to simulate real life load on the system, a representative test procedure will be developed with the vendor.

8.5.3.4. Shutdown and Start-up Sequences Testing

The standard system startup routines, as defined in the manual provided by the Vendor, will be used to bring the system up and on-line ready for operation. The system will be shut down using the operator's shutdown procedure, as defined by the Vendor, and a verification check will be performed (to guarantee no data corruption).

8.5.3.5. Power Outage and Recovery Sequence Testing

The system should be put through a simulated power outage. Following restoration of power, the system will be started using the standard start-up and recovery procedures as outlined by the Vendor. The system should be evaluated to determine that all functions are operating correctly and all tables will be checked for corrupt data.

9. DESIGN AND FABRICATION REQUIREMENTS

The material specifications presented in this section are desired. Deviations proposed by the Vendor must be explained in the proposal submittal response. The materials provided by the Vendor must meet the performance requirements of this specification.

Work that fails to conform to the Design Criteria shall be repaired or replaced in an approved manner to assure design strength and function. Such work shall be executed by the Vendor at no additional expense to the Owner, and shall include laboratory tests and costs for reexamination if the Owner deems necessary.

9.1. General Requirements

- a) S/RM's and conveyors shall be designed to operate in a warehouse environment. Operation temperatures will range from 50 to 105 degrees Fahrenheit.
- b) S/RM's and conveyors shall be designed to provide the levels of reliability and maintainability to insure a 99% up-time performance.
- c) Mechanical and electrical design should be of a modular design for ease of maintenance and repair.
- d) All materials shall be new; all cuts to be made square with work, free from lips, burrs or projecting sharp edges.
- e) All holes for connection of one section to another, for securing bearings, take-ups or other machine parts shall be drilled or punched and be clean and free from burrs.
- f) All rack bolted connections shall include lock washers or approved locking hardware.
- g) All sprockets, chains and gears subject to personnel contact shall be fully enclosed in readily removable split-type guards.
- h) All exposed corners of steel members shall be rounded and smooth to remove accident hazards.

9.2. Codes and Standards

The equipment shall conform to, as a minimum, applicable portions of the latest edition of the following codes and standards:

- a) American Gear Manufacturer's Association (AGMA).
- b) American Institute of Steel Construction (AISC).
- c) American Iron and Steel Institute (AISI).
- d) American National Standard Institute Safety Code for "Controlled Mechanical Storage Cranes" (ANSI B30.13) plus all current Addendum's.
- e) ANSI/AWS Latest Revision Structural Welding Code - Sheet Steel.
- f) ANSI/AWS Latest Revision Structural Welding Code - Steel.
- g) American Society of Testing and Materials (ASTM).
- h) American Welding Society "Structural Welding Code" (AWS-D1-1) and "Welding Industrial and Mill Cranes" (AWS-D14.1).
- i) Controlled Mechanical Storage Systems (CMSS) (Division of Material Handling Institute).
- j) National Electrical Code (NEC).
- k) National Electrical Manufacturer's Association (NEMA).
- l) National Electrical Safety Code (ANSI C.2).
- m) Occupational Safety and Health Act (OSHA).
- n) Underwriter's Laboratories (UL).
- o) Anti-Friction Bearing Manufacturers Association (AFBMA).
- p) National Fire Protection Association (NFPA).

9.3. S/RM Mechanical

The following areas are to be individually identified including description, material, sizing, number required and manufacturer, as applicable, as a part the Supplier's Proposal.

The successful Supplier's Proposal designations, as agreed to or amended by the Owner will become a part of this RFP.

9.3.1. Carriage Assembly

a) Carriage Platform

Carriage platform shall be designed for minimum deflection and be capable of placing or retrieving the load's maximum load weight at full extension within specified tolerances. Supplier shall submit with his proposal the specified operational tolerances for his proposed equipment.

b) Carriage Guide Rollers

Heavy duty, adjustable guide rollers shall be provided to accept maximum imposed lateral and horizontal forces. Guide rollers shall be easily inspected and removed to allow for maintenance.

c) Extractor

The extractor shall be capable of successfully placing or retrieving the load in storage racks or on the conveyor P&D's. The extractor shall also be provided with electrical and mechanical over-travel stops. The extractor shall be designed to remain within all interface tolerances when fully loaded and extended.

The S/RM shall have the ability to pick any pallet in the rack with the extractor.

d) Extractor Drive

The extractor drive shall provide for smooth acceleration and deceleration and starting and stopping of the extractor mechanism.

9.3.2. Lower Base Frame

Shock bumpers or bumper strike surfaces provided on the base frame shall be capable of completely stopping the S/RM fully loaded from 100% rated longitudinal speed without causing any damage to the S/RM, bumpers or associated mounting structures as per ANSI B30.13.

Aisle sweeps shall be located at the front and rear of the S/RM's. The aisle sweeps will stop the S/RM's when obstructions are sensed in the aisle where contact can be made by the S/RM's.

9.3.3. S/RM Mast

The mast shall be rigidly constructed without splices to provide a vertical supporting structure for the elevating carriage assembly that will minimize bending and torsion deflection when S/RM's are traveling with design rated loads in maximum acceleration and deceleration and starting and stopping modes. If the recommended procedure for replacing the hoist drive motor involves lifting the motor from its installed position on the mast, then appropriately sized and positioned lifting lugs shall be attached to the mast above the motor to safely facilitate this activity.

9.3.4. Horizontal Drive Assembly

The horizontal drive assembly shall be of modular design and be bolted to the lower base frame. A fail-safe holding brake shall be provided.

9.3.5. Hoist Assembly

The hoist assembly shall be of modular design and mounted near the base of the S/RM for ease of maintenance. A fail-safe holding brake shall also be provided.

Contained within the carriage hoisting system shall be all the safeties necessary to conform to ANSI B30.13.

The hoist is to be mechanically stopped in the event of an overspeed condition or a slack or broken cable (chain) to prevent a free fall to the floor. **UNDER NO CIRCUMSTANCES WILL THE CRANES BE PURCHASED UNLESS BOTH SAFETY FEATURES (OVERSPEED CONDITION AND SLACK OR BROKEN CABLE) ARE DESIGNED AND INSTALLED ON EACH MACHINE.**

9.3.6. Control Platform

An operator control panel shall be provided near the base of the machine, containing the master power panel, operator's panel, and logic and power supply panels.

9.3.7. Access Ladder

An access ladder running the full height of the mast shall be provided. The ladder shall meet all requirements established in ANSI B30.13 and applicable codes.

9.3.8. Finishes

Metal parts must be painted or treated to resist corrosion. A primer coat is required if specified by the finished coat paint manufacturer. Any moving parts or wear surfaces that do not receive paint should be adequately protected for shipment and installation. The color, thickness and application method of the paint shall be Supplier's standard with Owner approval. Preparation of the metal prior to painting and the application of the paint shall be accomplished in strict accordance with the paint manufacturer's instructions. The Supplier shall submit standard color chips with proposals. The painted surfaces must be cleaned and of a consistency to allow pressure sensitive label application.

9.3.9. Touch Up

After installation, components shall be cleaned and any areas that have scratches, blemishes or the finish rubbed off will be touched up to match the original paint quality.

9.4. S/RM Electrical

The following areas are to be individually identified including description, rating, sizing, number required and manufacturer, as applicable, as a part of the Supplier's Proposal.

The successful Supplier's Proposal designations, as agreed to or amended by the Owner, will become a part of this RFP.

9.4.1. General

- a) Vendor shall assume responsibility for testing all motors, controls, associated wiring, and mechanical assemblies prior to shipment and installation. The Owner shall be notified a minimum of two weeks prior to testing in order to make arrangements to witness these tests, if desired. These tests shall include but not be limited to the tests described in Section 12.4.
- b) Owner requires all electrical components to be U.L. Certified.
- c) All flush mounted control components shall conform to NEMA 4.

- d) Approximately 20% spare capacity shall be provided on the various control panel sections and terminal blocks for future expansion.

9.4.2. Power System

9.4.2.1. Power Distribution

- a) An emergency trip cord shall be provided in each aisle approximately one (1) foot above the floor. The cord shall stop S/RM motion by cutting power to the machine. Restart will require a manual reset at the end of the rack, mounted so as to be inaccessible from a position within the crane aisle.
- b) Vendor shall supply and install safety railings, signs, etc. as required to meet ANSI B30.13 in both the front and back S/RM run out areas to restrict access while the S/RM's are operating in Automatic or Semi-Automatic mode.

9.4.2.2. Main Conductor System

The S/RM shall receive external power using a mullet-conductor power rail or bus bar and associated trolley mechanism. The use of festooned cable shall not be allowed.

Power and/or communication bus bars shall be mounted on the storage rack system at an elevation to be approved by the Owner.

9.4.2.3. Rail Grounding Requirements

Floor rails in each aisle shall be connected to earth ground of that aisle by a copper conductor of suitable size. Grounding requirements shall comply with all applicable codes of NECK (NAPA 70), ANSI C114.1 and ANSI/SAME B30.13.

9.4.2.4. Lighting

Vendor is to provide lighting on the S/RM capable of providing light fifty (50) feet in each direction from the SR/M in the aisle. The level of illumination should be 30 foot candles at 50 feet.

9.4.2.5. End Of Aisle Power

The main power conductor will not extend into the maintenance bay area if the power source is less than 12 feet above the finished floor. If the power source is less than 12 feet AVE, a 480 volt male plug should be provided on the S/RM to provide power to the S/RM for manual positioning in this bay.

9.4.3. Motors

- a) S/RM drive mechanisms shall be designed to permit maintenance and repair to be performed within the S/RM maintenance area located at the end of the S/RM aisles.
- b) The S/RM and associated operating equipment shall be designed for 24-hour operation with drive motors of sufficient size to prevent overloading. After the system is in operation, any motor which draws more than the rated current shall be replaced with new or up-rated motor by the Vendor at the Vendor's expense.
- c) All motors shall comply with the appropriate NEMA standards, and any standards as called out in this document.
- d) Motors and gear drives shall have a permanently attached, readable nameplate containing the following information:
 - 1) Type
 - 2) Rating
 - 3) Horsepower
 - 4) Enclosure
 - 5) Mounting
 - 6) Windings
 - 7) Class of Insulation
 - 8) NEMA Frame Size
 - 9) Type of Drive
 - 10) Gear Ratio
 - 11) Brake Size and Torque Rating
 - 12) Manufacturer

9.4.4. Power Control Panel

The Power Control Panel shall be mounted on the S/RM mast with safe personnel access provided from the floor and at a minimum shall include the following:

- a) Enclosure
- b) Cable Connections
- c) Power Disconnect
- d) Lockable, Spring Actuated, Knife-edge disconnect - disconnects all sources of power (main and ancillary) from the S/RM
- e) Main Power Monitor
- f) Under/Over Voltage, Phase Reversal Sensing
- g) Short Circuit Protection
- h) Starters

- i) Motor Overload Protection
- j) Control Relays
- k) Interfacing AC/DC

Each S/RM shall have at least three (3) 110 Volt AC 20 amp 60 hertz grounded single duplex receptacles with spring loaded covers, one located on the carriage, one on the outside of the power control cabinet, and the other within the power control cabinet, all shall be operational and accessible during manual operation.

9.4.5. Manual Operator Panel

The Operator's Manual Control Panel shall be mounted on the face of the Power Control Panel located on the back of the S/RM and shall contain at a minimum the following:

- a) Manual/Automatic Mode Key Switch
- b) Spring Return to Center Off Forward/Reverse Travel Operator
- c) Spring Return to Center Off Up/Down Travel Operator
- d) Spring Return to Center Off Extractor Left/Right Travel Operator
- e) Spring Return to Off Aisle Clearance Scanner Operator (if required)
- f) Carriage High and Low Indicators
- g) Extractor Off Center Left and Right Indicators
- h) Extractor Center Indicator
- i) Extractor Full Right Indicator (for rack stroke or manufacturing stroke)
- j) Extractor Full Left Indicator (for rack stroke or manufacturing stroke).
- k) Load Out of Position Left, Right and Height Indicators
- l) Load Out of Position Front and Back Indicators
- m) Load Present Indicators
- n) Aisle Clearance Left and Right Indicators
- o) Numeric Readout of Current S/RM Location (Horizontal and Vertical) (according to mutually agreed position numbering system)
- p) Emergency Stop - Mushroom Head Maintained/Illuminated Push-button Operator

9.4.6. Logic Control Panel

The Logic Control Panel shall be mounted on the S/RM and shall contain the following:

- a) Electrical Isolation from External Power
- b) Automatic/Manual Switching System
- c) Communication Link Driver
- d) On-board PLC or Crane Controller

9.4.7. Sensors and Controls

The following limit switches, photoelectric eyes and detectors shall be provided on each S/RM and shall be specified as to type, make, and enclosure as applicable.

9.4.8. Positioning Sensors

- a) Alignment with the conveyor P&D's will be with optical permissive devices.
- b) Horizontal and vertical S/RM positioning shall be accomplished with optical controls within +/- 1/32 inch.

9.4.8.1. Positioning Controls

The S/RM positioning shall compare the information from the position sensors to the position values representing the destination location required for the next S/RM move function and generate the appropriate signals to the S/RM positioning devices to move the S/RM with optimal accelerations and velocities. In addition the positioning controls shall perform the following functions:

- a) Slow down of S/RM at each end of aisle.
- b) Final over-travel cutout of S/RM at each end of aisle.
- c) Slow down of carriage at top and bottom.
- d) Final over-travel cutout of carriage at top and bottom.
- e) Extractor centering, position extensions, and over-travel left and right.
- f) Broken or slack chain sensing.
- g) Hoist overload sensing.
- h) Overload condition.
- i) Free fall condition.

9.4.8.2. Load Check/Reject Line

The input/output conveyor shall support a load tolerance sensors. The sensing units will provide the following functions and reject out of tolerance loads to a dedicated reject lane:

- a) Load over weight tolerance.
- b) Load over height tolerance.

- c) Load over width tolerance.
- d) Load over depth tolerance.
- e) Load on extractor misaligned
 - Front to back
 - Side to Side

9.4.8.3. Load Sensing

The S/RM carriage assembly shall support load sensing mechanisms, which identify loads that are out of size tolerance or mis-aligned.

The sensing units in combination with the on board controls will provide the following functions:

- a) Load present on extractor.
- b) Load over height tolerance.
- c) Load over width tolerance.
- d) Load over depth tolerance.
- e) Load on extractor misaligned
 - Front to back
 - Side to Side
 - In Aisle Clearance Left or Right.
- f) Full position detectors to sense loads occupying locations on both sides, in the racks and on conveyor P&D's.
- g) Empty position detectors to sense empty locations on both sides, in the racks and on conveyor P&D's.

9.4.9. Safety and Interlock Controls

The following safety and interlock controls shall be incorporated as a minimum in the S/RM unit while operating in the automatic mode:

- a) Horizontal travel slow down and stop for over-travel at each end-of-aisle.
- b) Vertical travel slow down and stop at full top and bottom travel of carriage.
- c) Extractor will not extend off center unless S/RM is positioned horizontally and vertically at a valid position to do so.
- d) Extractor will not extend in "extractor-low" position with a load on the extractor.
- e) Extractor will not extend in "extractor-high" position without load on extractor.
- f) Extractor will not extend to deposit load onto P&D's if "extractor high" optical permissive signal from external P&D controller is not present.
- g) Extractor will not extend to pick up load from P&D's if "extractor low" optical permissive signal from external P&D controller is not present.
- h) S/RM will not operate horizontally unless extractor is centered on carriage.
- i) Hoist will not operate unless extractor is centered on carriage or at full extension for pick-up or deposit from rack position.
- j) Hoist will not operate beyond limits required to pick-up or deposit load in rack or in conveyor P&D's.
- k) Extractor will not operate beyond limits required to pick-up or deposit load in rack or in conveyor P&D's.
- l) If the load is oversize, skewed or not centered on the extractor during an attempt to deposit or pick up a load, the S/RM will stop, signal the condition to the end of aisle system controller and wait for manual intervention, unless otherwise specified.
- m) If an attempt is made to deposit a load into position that already contains a load, the extractor travel will be halted without contacting the load at the position, and the extractor will return to center and indicate "Full Location" at the remote console.
- n) If an attempt is made to retrieve a load from an empty position, the extractor will return to center and indicate "Empty Location" at the remote console.
- o) Mushroom-head emergency stop with manual reset shall be provided at the front and rear of S/RM, located approximately four feet above floor level.
- p) A strobe light will be provided and will operate during S/R machine motion in any axis.
- q) Manual operator controls on S/RM will be momentary contact type for "Dead-Man" control.
- r) Horizontal over-speed sensing and emergency stop. Horizontal brake design shall be normally set and require power to release.

- s) Vertical over-speed sensing and emergency stop. Vertical brake design shall be normally set and require power to release.
- t) Slack cable sensing and emergency carriage stop. This system must be capable of stopping the carriage safely during a free-fall descent at 200% nominal carriage velocity with 2.800 lb. load on-board the carriage.
- u) Aisle sweeps shall be located at the front and rear of the S/RM's. The aisle sweeps will stop the S/RM's when obstructions are sensed in the aisle where contact can be made by the S/RM's.

9.5. S/RM Racks

9.5.1. Guide Rails

a) Floor Rail

Rail shall be ASCE crane rail that has been properly sized for the loads imposed by the S/RM. The rail shall be installed using a sole plate, pad and rail clip installed at spacing to adequately handle the design loads. All rail sections shall be joined using the thermite welding process. The floor rail shall be softer than the drive and idler wheel located on the S/RM to minimize wear on the wheels.

The concrete floor slab is designed for a flatness and levelness of:

Overall values of flatness: F (F) 45.

Overall values of levelness: F (L) 35.

Minimum local values of flatness: F (F) 30.

Minimum local values of levelness: F (L) 24.

Vendor shall provide shims and shim rail as required.

b) Top Guide Rail

The Vendor shall design, build, and install, while coordinating with the rack subcontractor, the top guide rail attached to the storage rack structure as part of this Contract. The top guide rail shall be sized to accommodate the loads and forces imposed by the S/RM's under all modes of operation. All joints shall be welded.

9.5.2. Upright Frames

The upright frames will be suitably braced internally to safely support the intended loads, including seismic, and will be tied back-to-back to provide a rigid and stable structure.

The upright trusses will support the load beams on which loads will be stored. Uprights are to be of sufficient height to adequately support the load beams. All uprights are to be of equal height.

9.5.2.1. Base Plates

Base plates or foot plates shall be provided on the bottom of all upright posts. Base plates are to be of adequate capacity and size to support the upright column without any deflection of the base plate. The base plate is to be of the appropriate size to disburse the load weight and accommodate anchoring to the floor.

9.5.2.2. Floor Anchors

Upright trusses via base plates are to be anchored to the floor in a positive and secure manner using fasteners of a style which permit ready removal, if required at a future date, leaving a flush floor.

Base plates shall be anchored to the concrete floor with a minimum of one anchor bolt per base plate.

See Section 7.6 for floor slab characteristics. The Supplier is responsible for taking into account these factors in their installation work.

9.5.2.3. Shims

Shims will be used to level each upright within 1/8" of plumb over the total height of the upright. Shims will also be used to level the horizontal load beams to plus/minus 1/8" per beam. The total aisle of load beams at the same elevation shall be level within plus 1/4". Shims will also be used to fill any space between the foot plates of the assembled racking and the floor before anchoring to prevent binding in the event a load beam must be replaced after the racking is in use.

9.5.2.4. Attachments to Building

All rack equipment installed under this Contract shall be floor supported and free-standing. No attachments to the building structure other than floor will be permitted.

9.5.2.5. Support Connection Construction

Supports are to be secured to the upright truss columns in a positive manner by means of either the interlocking type or bolted type end connectors. If an interlocking type connector is used in the assembly of the rack components, a positive locking device shall be incorporated in the design which shall be capable of resisting a 1,000 lb. upward lifting force from material handling equipment. All beams shall have identical end connector configuration.

The supports may NOT be welded or fastened to the upright member in a manner which is not readily removable or reusable.

9.5.3. Back to Back Row Spacers

Back to back row spacers are to be provided to tie the rows of racking together in a positive manner to maintain the appropriate row separation as designed.

9.5.4. Cross Aisle Ties

A cross aisle tie will be furnished and installed at each upright down aisle. This tie must be capable of supporting a top guide tube for the Cranes. This tube will be welded in place.

9.5.5. Standards and Codes

The Supplier's equipment shall be designed and conform to any applicable Occupational Safety and Health Act Regulations and any and all ANSI, AISC, and RMI latest revisions and all other applicable federal, state and local codes, laws and regulations. Equipment shall be designed in conformance with the current version of the following standards.

9.5.6. Occupational Safety and Health Agency

OSHA Safety and Health Standards (29 CFR 1910), United States Department of Labor, Occupational Safety and Health Administration, OSHA 2206, July 1, 1987, or latest issue. Copies of the above may be obtained from the OSHA Regional Office in your area.

9.5.7. American National Standards Institute

"Specification for the Design, Testing, Utilization, and Application of Industrial Grade Steel Shelving" (ANSI MH 28.1-1982) and "Safety Practices for the Use of Industrial and Commercial Steel Storage Racks" (ANSI MH16.2-1984).

Copies of these documents may be purchased from the American National Standards Institute, Sales Dept., 1430 Broadway, New York, NY 10018 (Phone: 212-642-4900, FAX: 212-302-1286).

9.5.8. Rack Manufacturers Institute

"Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks - 1985 Edition" Copies of this document may be purchased from the Rack Manufacturers Institute, 1326 Freeport Road, Pittsburgh, PA 15328 (Phone: 412-782-1624).

9.5.9. Dimensions and Tolerances

The rack system design depicted is for illustration purposes. All equipment is to be of the manufacturer's design.

Any design tolerances for rack members required to store and handle loads shall be established by the Supplier, subject to review by the Owner.

9.5.10. Safety Factor

The minimum factor of safety base on yield strength shall be 1.92. The Rack Supplier shall have available certified test reports on the actual steel used in these racks and, if requested, shall provide such engineering computations and data to verify the design strength and deflection.

9.5.11. Materials

All material and equipment shall be new, unless otherwise specified, and the product of a reputable manufacturer.

9.5.12. Burrs And Sharp Edge

All cuts, edges, holes, and assemblies are to be free of burrs and sharp edges. All exposed corners of steel members shall be rounded and smooth to remove accident hazards.

9.5.13. Finishes

The selected vendor will supply the Owner with their standard paint color selection chart. Metal parts must be painted or treated to resist corrosion. A primer coat is required if specified by the finished coat paint manufacturer. Any moving parts or wear surfaces that do not receive paint should be adequately protected for shipment and installation. The color, thickness and application method of the paint shall be Supplier's standard with Owner approval. Preparation of the metal prior to painting and the application of the paint shall be accomplished in strict accordance with the paint manufacturer's instructions. The Supplier shall submit standard color chips with proposals. The painted surfaces must be cleaned and of a consistency to allow pressure sensitive labels to stick to it.

9.5.14. Touch Up

After installation, components shall be cleaned and any areas that have scratches, blemishes or the finish rubbed off will be touched up to match the original paint quality.

9.5.15. In-Rack Sprinklers

It is anticipated that inrack sprinklers will be required. See section [7.13 Fire Suppression Service](#). If required by the system design, in rack sprinkler system shall be provided as part of the proposal.

9.5.16. Welding

All welding shall fully comply with requirements of American Welding Society's codes as amended to date. All welding shall be under direct supervision of qualified personnel. Welding operators shall have been certified within twelve (12) months prior to work on this project, except that personnel continuously employed as welders may be accepted on the basis of satisfactory reports dated not more than two years prior to project start.

9.6. Conveyor

9.6.1. Carton Conveyor Frame Dimensions

The conveyor roller dimensions must have a minimum length of 21-inches.

9.6.2. Conveyor Structures

The conveyor frames will be suitably braced internally to safely support the intended loads and the conveyor mounted above. Cases on the case conveyor will weigh between one and 50 pounds. Rollers and drive motors will also be designed to provide stable and reliable transportation.

9.6.3. Bearings

Rated bearing life and recommended lubrication requirements will be an important factor in the evaluation of Vendor proposals. Roller bearings are to be sealed precision bearings with a 2.5 safety factor.

9.6.4. Tolerances

Tolerances shall be in accordance with quality workmanship, e.g., parts dimensionally correct, square, straight, etc. The following specific maximum tolerances apply:

- a) All conveyor sections shall be square within 1/32" across the diagonal of each 10 ft. straight section.
- b) Installation - dimensions to exterior walls and building columns shall be maintained within 1/4".
- c) The conveyor shall be installed level from side to side within 1/8".
- d) Straightness - the conveyor shall be straight to within 1/4" of a taut line the entire length of each straight section of the conveyor.
- e) Vertical supports shall be plumbed vertically within 1/8" per 10 feet.

9.6.5. Sensor Mounting

All sensors (proximity switches, etc.) must be adequately secured to prevent movement or loosening by vibration. Proximity switches must be clamped near the center of the threaded barrel. Sensors shall be affixed in a manner to provide for direct mechanical interchange among compatible sensors. Sensors mounted underneath the load are not acceptable.

9.6.6. Air Lines

Air line piping should follow a path parallel with electrical whenever possible. Exhaust must be free of oil and meet OSHA noise levels for operators without ear protection. Exhaust air lines must be adequately sized to prevent back pressure. All air lines shall include proper filters, regulators, lubricators, etc. for proper control and operation. Manual shut-off valves shall be placed where applicable.

9.6.7. Audio Noise

Operating equipment shall not exceed a time weighted average noise level of 80 dbA.

9.6.8. Labeling

All conveyor section switches, motors, valves, and regulators must be clearly labeled to identify the associated function for reference to maintenance and operator manuals.

Labels are to be permanently attached to or near the device. Dymo-type labels are not acceptable.

9.6.9. Finishes

Metal parts must be painted or treated to resist corrosion. A primer coat is required if specified by the finished coat paint manufacturer. Any moving parts or wear surfaces that do not receive paint should be adequately protected for shipment and installation. The color, thickness and application method of the paint shall be Supplier's standard with Owner approval. Preparation of the metal prior to painting and the application of the paint shall be accomplished in strict accordance with the paint manufacturer's instructions. The Supplier shall submit standard color chips with proposals. The painted surfaces must be cleaned and of a consistency to allow pressure sensitive labels to be stick to it.

9.6.10. Touch Up

After installation, components shall be cleaned and any areas that have scratches, blemishes or the finish rubbed off will be touched up to match the original paint quality.

9.6.11. Installation Factors

Vendor is responsible for supplying all system supports. No overhead supports should be required in this system. If the Vendor can see an area where it might be advantageous, then it must approved by Owner or the Owner's Agent.

9.7. Conveyor Control System Requirements

This section describes the requirements for implementing the control systems for the material handling equipment, and identifies the related specifications. Included are the methods, conventions, and guidelines that must govern the development, fabrication, and construction of the equipment.

9.7.1. Electrical Requirements

9.7.1.1. Emergency Stops (E-Stops)

Emergency Stop switches shall be red mushroom-head, unguarded palm buttons and perimeter lanyards with maintained contacts. E-Stop switches shall be normally closed, hard wired in series to a master E-Stop relay with auxiliary normally closed contacts connected to inputs of the Conveyor Control System.

9.7.1.2. Auxiliary Outlets

Supplier shall provide a grounded, 115 VAC, 15 AMP convenience outlet in each control cabinet. Power shall be sourced from the primary side of the control cabinet disconnect.

9.7.1.3. Disconnects

Each motor control cabinet shall have a three-phase disconnect.

9.7.1.4. Wiring

9.7.1.4.1. Grounding

All wiring shall include a white neutral and a green ground. The ground wire must daisy chain to all components and connect to "earth" ground at a single point.

9.7.1.4.2. Terminations

Terminations shall be made in control cabinets or junction boxes on terminal blocks. No more than two wires shall be connected to any single terminal point. Splices shall not be made inside wireways or conduits.

9.7.1.4.3. Protection

Conductors and cable within wireways or conduits shall be protected from mechanical damage or abrasion. Conductors leaving wireways, conduits, junction boxes or control cabinets shall have proper strain relief devices.

Electrical wiring that connects to moving members must be adequately protected from wear and kinking by means of flexible plastic track assemblies or other means.

All jacketed cable shall be run in conduit or wireway. Cable exposure shall be kept to a practical minimum. Unjacketed wire shall not be used.

Cables shall be attached to the equipment frame with screw-fastened, reusable cable clamps. There shall no more than 10 inches between clamps. Adhesive-type clamps are unacceptable.

9.7.1.4.4. Wire Color Codes

Electrical power and control wiring (not including communication lines) shall follow accepted standard color coding guidelines.

9.7.1.4.5. AC and DC Wiring Separation

AC and DC wiring shall have separate wireway, conduit, or partitioned wireway.

AC and DC wiring inside control cabinets shall have a minimum parallel separation of six inches. AC and DC wiring that must cross shall cross at right angles.

9.7.1.4.6. Low-Voltage Signal Wiring

Low-voltage signal wiring (tachometers, resolvers, encoders, etc.) shall be routed with the DC wiring and shall have separate shielded, twisted pair cabling with the shield grounded in the control cabinet only.

9.7.1.4.7. Conductor Sizes

Power circuit conductors shall not be smaller than 14 AWG.

Control circuit conductors shall not be smaller than 20 AWG.

Circuit protection shall be properly sized in accordance with the wire sizes of each circuit.

9.7.1.4.8. Spare Wires

Spare wires of the same gauge, color and type as the active wires shall be provided. The number of spare wires shall be, within practical limits, between 10 and 15 percent of the number of active wires. Each wire shall be long enough to reach any point within the box or cabinet where located.

Spare wires shall be coiled and tied separately from active wires at the point of entry to the box or cabinet. Coils shall be marked with the location of origin and plainly visible.

9.7.1.4.9. Wire Numbers

9.7.1.4.9.1. Terminating Point Identification

Conductors shall be identified at each termination point with a sleeve-type embossed label attached to the wire. Adhesive wire labels are not acceptable.

9.7.1.4.9.2. Input Devices

Input devices connected directly to the control system shall take on the software (or hardware) assigned input number. For example, a proximity switch connected to input 10013 shall be labeled "10013PRS" and connected to the discrete input with wire number 10013.

9.7.1.4.9.3. Output Devices

Output devices connected directly to the control system shall take on the software (or hardware) assigned output number. For example, a solenoid connected to output 00027 shall be labeled "00027SOL" and connected to the discrete output with wire number 00027. Preceding zeros are required.

9.7.1.4.9.4. Multiple Terminations

A device with multiple wires terminating at the control system shall be identified by the lowest input/output number.

Multiple devices terminating at a single input or output shall be designated with alphabetical subscripts. For example, two solenoids wired in parallel and connected from output 00024 would be labeled "00024ASOL" and "00024BSOL".

9.7.1.4.10. Enclosures

Enclosures shall be NEMA 12 or equivalent (dust tight, drip proof, unventilated). Supplemental cooling devices shall not degrade the enclosure from the original standard.

Clear plastic windows shall be provided in the doors of enclosures housing PLC's to permit visibility of the input/output modules.

Enclosures shall be painted on the inside with white enamel paint. All exterior enclosures shall be painted. Apply paint in accordance with manufacturer's instructions.

Enclosure doors shall have key or tool-operated latches and be capable of lock-out, tag-out.

9.7.1.4.11. Conduit and Wireways

Wireway enclosures shall be hinged, NEMA 1, or equivalent.

Conduit sizes and capacities shall adhere to the National Electric Code.

9.7.1.4.12. Control Transformer

A separate control transformer and enclosed disconnect within the enclosure shall provide 115 VAC power to the Control processor and control components. The transformer and disconnect shall be located directly to the left of the main enclosure disconnect.

The control transformer disconnect shall be wired to the top (hot) side of the main enclosure disconnect. The wiring shall be connected directly to the enclosed disconnect with no exposed terminals. The transformer secondary shall be grounded to the main grounding strip. All AC voltages for control components are to be derived from the control transformer.

9.7.2. Standard Equipment Controls And Indications

The control system must properly handle the standard equipment controls and indications described in the text that follows. For multi-station systems, controls must be divided into two layers: Equipment System Controls and Equipment Station Controls.

9.7.3. Equipment System Controls

System Controls enable the Manual Station controls. Typically, they are located on one or more control cabinets. The layout of these controls and the control cabinets must conform to the guidelines of the Owner's Agent's. The minimum requirements for System Controls are:

Inputs

- | | |
|-------------------|-------------------------|
| 1. SYSTEM START | Illuminated Push-Button |
| 2. SYSTEM STOP | Push-Button |
| 3. EMERGENCY STOP | See 9.7.4 |
| 4. E-STOP RESET | Illuminated Push-Button |
| 5. ALARM SILENCE | Push-Button |

- | | |
|----------------|-------------------------------|
| 6. ERROR RESET | Illuminated Push-Button 9.7.4 |
|----------------|-------------------------------|
- Outputs
- | | |
|-----------------------|-------------------------------|
| 1. E-STOP | Lamp |
| 2. SYSTEM START | Push-Button Alarm |
| 3. ERROR | Lamp |
| 4. AUDIBLE ALARM | |
| 5. ERROR DISPLAY DATA | Display Outputs (as required) |
| 6. ERROR RESET | Push-Button Lamp |

9.7.3.1. Equipment Station Controls

Individual sections of equipment that comprise the system are controlled by Manual Stations. Each Manual Station is used to start or stop the equipment and to operate the controllable actions of the equipment. Typically, these Manual Stations are located adjacent to the equipment being controlled. The layout of the Manual Station controls must conform to the guidelines of the Owner's Agent's. The minimum requirements for Station Controls are :

Inputs

- | | |
|------------------------|---|
| 1. MAN-OFF-AUTO | Three Position Keyed Selector Switch |
| 2. E-STOP | One Push-Button per Manual Station |
| 3. START AUTO | One Illuminated Push-Button that activates the AUTO selection. |
| 4. CONTROL STOP | One Illuminated Push-Button Per Manual Station |
| 5. CONTROL STOP RESET | One Push-Button per Manual Station |
| 6. COMMANDABLE ACTIONS | Individual spring return switches associated with each manually controllable motion of the equipment. |

Outputs

- | | |
|------------------------|------------|
| 1. AUDIBLE ALARM | |
| 2. E-STOP | Red Lamp |
| 3. DIAGNOSTICS DISPLAY | See 9.7.4 |
| 4. AUTO | White Lamp |

9.7.4. Equipment Control Concepts

9.7.4.1. Auto-Off-Manual Selection

The equipment can be in one of three modes: MANUAL, OFF, and AUTO. The mode to be activated is selected by turning a keyed selector to the appropriate position.

- MANUAL:** Selecting MANUAL mode places the equipment under manual control. The software must include interlocks to minimize machine damage during manual operation.
- OFF:** OFF initiates a controlled stop of the equipment. If switched from AUTO to OFF and back to AUTO, the equipment will resume from where it stopped.
- AUTO:** Selecting AUTO mode enables automatic operation to begin when the START AUTO button is pushed. The white push-button must be illuminated when the system is in the automatic mode.

9.7.4.2. Stop Conditions

The kinds of stop conditions and the required procedures that govern them are detailed in the text that follows.

- CONTROL STOP:** A CONTROL STOP mode will be entered from the AUTO mode by depressing the CONTROL STOP push-button. At this time, the CONTROL STOP light must flash and the sequencer step number must be frozen. A CONTROL STOP condition must halt all motion without losing memory information.
- E-STOP:** An Emergency Stop condition must cause all motion in the appropriate area to stop immediately. All control system output voltages, except lights and readouts, must be shut off during an E-STOP condition.
- OFF:** Turning the selector switch to the OFF position will cause motion to cease in the area controlled by the selector switch.
- MANUAL:** Turning the selector switch to the MANUAL position must cause motion to cease in the area controlled by the selector switch. Motion can be reinitiated in the MANUAL mode by activating the appropriate manual control.

9.7.4.3. Emergency Stops (E-Stops)

EMERGENCY STOP switches are to be red mushroom-head, unguarded palm buttons and perimeter lanyards with maintained contacts. E-STOP switches must be normally closed hard wired in series to a Master E-STOP relay with auxiliary normally closed inputs to PLC inputs. Contacts from the Master E-STOP relay must be linked in series to a master start control coil, and the switches wired so that they physically disconnect control power from all electrical devices within the process. An individual indicator lamp and diagnostic error message must identify each asserted E-STOP.

To interface the E-STOP's of other equipment, E-STOP wiring must be brought to a terminal strip in a control enclosure. A contact from each push-button is to be wired to a discrete PLC input and monitored. Relays are to be used to remove output voltage.

The E-STOP command RESUME turns on output voltages, but the stopped machine(s) must be returned to HOME to continue normal operation.

9.7.4.3.1. Lanyard E-Stops

A lanyard system that travels the entire perimeter of the equipment shall be provided. The system shall require a mechanical reset following a trip at each local lanyard subsystem. A local enunciator shall be provided to indicate a lanyard trip.

9.7.4.4. Interlocks

Interlocks within the system and between the system and other equipment must be achieved by a secure, reliable link. Preferred methods of interconnects include discrete I/O signals and peer-to-peer links, such as, ODVA technologies' DeviceNet™, EtherNet/IP™, CompoNet™, and ControlNet™ networks, which are based on the Common Industrial Protocol (CIP™). The Common Industrial Protocol (CIP) provides interoperability and interchangeability essential to open networks and systems..

The equipment must be designed to function properly, safely, and without damage to the product if any piece of equipment loses electrical, air, or vacuum power.

9.7.4.5. Imminent Startup Warning

The control system shall provide a fifteen (15) second delay between startup initialization and equipment motion. During this delay a startup horn shall announce an imminent startup warning. This signal shall provide a minimum of 90dB level at all points affected by the startup.

9.7.4.6. Error Recovery

The system must automatically recover from a shutdown caused by two kinds of errors: product flow temporarily jammed and peripheral equipment temporarily off. Other errors require human intervention to restart the system. These include E-STOP and Device Jam.

9.8. Control System Hardware

9.8.1. Electrical Noise Immunity

Particular care shall be exercised to assure trouble-free operation of the control system in the plant environment. RFI filters, noise suppressers, etc. shall be included where applicable.

9.8.2. Hard Wired Circuitry

Any signal that can adversely affect equipment operation because of control system processing overhead or scan rate dependency is either to control or to be controlled by hard wired circuitry so that it does not impede the equipment cycle.

9.8.3. Control Circuit Ground

Control circuit ground should always be logic zero.

9.8.4. Spare Capacities

9.8.4.1. Free I/O Requirements

Each I/O group shall have a minimum of 10 percent extra input and output card space available after system start up and debug.

9.8.4.2. Free Memory Requirements

Each control system processor shall have a minimum of 20 percent of user memory available after system start up and debug.

9.8.5. Rack Grounding

All control system chassis shall have a continuous discrete #10 braided copper conductor connected to ground in the enclosure. The connection point at each rack shall be at the rack mounting bolt to the back plate. All paint shall be removed from the rack and back plate at this point to assure a solid electrical connection.

9.9. Control System Software Specifications

As stated previously, PLC's shall be used for most control purposes, and for coordinating the use of other intelligent devices. The required PLC functions have been divided into four categories: equipment control, equipment diagnostics, process alarming, and data gathering. Subsections 9.9.1 through 9.9.3 describe the functions that the Equipment Vendor will provide and implement in Ladder Diagram software. Subsection 9.9.5 defines the implementation guidelines for the PLC software.

9.9.1. Equipment Control

This software contains the logic required to sequence the production equipment through its normal operation, which includes set-up, cycle start, cycle stop, and emergency stop situations. This logic will support the proper operation of the equipment controls described in Section 9.7.2 Standard Equipment Controls And Indications.

9.9.2. Equipment Diagnostics

All production machinery control systems must provide equipment diagnostics to aid in the detection of events causing a malfunction in the equipment. Any interruption of the normal automatic cycling of the equipment will be automatically diagnosed, and the operator alerted by means of an audible alarm and the display described in Section 9.9.2.2. In general, errors are determined by timing the response of a commanded move or action, monitoring limit switch pairs of actions, and monitoring the sequence of operation. The system declares a malfunction when an action takes too long to complete, invalid logic situations occur, or expected actions do not occur.

9.9.2.1. Representative Conditions Generating Diagnostics

Examples of the conditions that generate diagnostics are identified in the list that follows:

- Stop asserted (by location)
- Any condition inhibiting the product flow
- Low air pressure (if applicable)
- Divert signal no read
- Unable to release product
- Jam conditions
- Logically occupied pallet position is empty
- Physically occupied pallet position when the logic assumes it is empty

9.9.2.2. Diagnostic Error Display

The minimum requirement for presenting diagnostic information is the display of a textual description of the error accompanied by a graphical representation of the error location. This will identify a specific fault or error, as determined by the control software. The error is to remain on display until the error condition is eliminated. A log of all error conditions is to be maintained.

9.9.3. Process Monitoring and Alarming

The PLC logic program must monitor the process variables (such as position) and maintain set-points for these variables. The control system is also to detect alarm conditions and to generate a diagnostic indication for all closed loop processes. This includes presenting the set-point data and the current process variable (range and points within range). These alarm detection and indication functions must be implemented in the PLC Ladder Diagram.

9.9.4. Data Gathering

Subsections 9.9.1 through 9.9.3 describe functions that are required for the proper control of the equipment and the process. This subsection describes additional functions that must be implemented to gather information for display or transmission to other tiers in the control hierarchy.

9.9.4.1. Equipment Usage

The PLC program must maintain equipment data for at least one setup, shift, or day.

9.9.5. Owner Guidelines

When generating software, the Owner guidelines must be followed to maintain continuity with equipment to be installed by the Owner. These guidelines apply to the general organization of the program logic as well as the assignment of registers, coils, etc.

Software for each piece of automatic equipment is to be based on a sequencer (or drum) function, where applicable. Software that is unique to a piece of equipment and/or a channel of I/O is to be grouped in memory.

9.9.5.1. Program Organization

Software necessary to handle all the operating conditions and all the product mix specified herein shall reside simultaneously in RAM.

When applicable, the system control logic is to be arranged in the memory of the PLC(s) in the following order (beginning to end of memory) for each device:

1. Equipment Control includes:
 - Housekeeping--calculations and logic needed while solving for stepping logic and operational logic
 - Interlocks
 - Sequencer stepping logic
 - Sequencer skip step logic
 - Sequencer counter logic
 - Action logic (outputs for movements).
2. Process Data: Any shift register/block move logic to maintain process data.
3. Equipment Diagnostics: Diagnostic detection and display logic.
4. Equipment Usage: All logic used to time the various modes of production equipment.
5. Production Data: All logic to accumulate and tally the use of the production equipment.
6. Communications: Data to be accumulated and/or maintained by the control system must be made available to other systems. Any logic required to communicate from the PLC to other systems is to be considered communications logic.

10. INSTALLATION SUPPORT

10.1. Vendor Installation

10.1.1. Installation Responsibility

10.1.2. The cost of installation must be specified separately with the understanding that the Owner or others may self-perform. Otherwise, the Vendor is responsible for all installation. The Vendor is expected to coordinate the installation of the all S/RM subcontractors. Vendor Technical Coordination

The Vendor shall be responsible to provide technical coordination and assistance during the installation of the equipment. All set-up and final adjustments shall be done by the Vendor's representatives.

10.1.3. Delivery and Unloading

The Vendor is responsible to load the S/RMs and components on the delivery carrier for unloading at Idaho State Liquor Dispensary's Distribution Center in Bosie from trailers inside the building. A ramp and doorway will be available for trailer access into the building.

The Vendor is to provide an estimate of the number of truck loads to be delivered. Site storage of trailers must be planned and scheduled with the Owner. A maximum of five (5) trailers may be stored on site at any one time, and only with the Owner's permission. On street trailer parking is prohibited by local ordinance.

10.1.4. Site Responsibilities

The S/RM System Vendor shall be responsible for overall cleanliness of the work area during installation and shall make daily cleanup of the area, removing the collected materials to an approved dump site. Combustible materials shall not be allowed to accumulate and shall be removed from the installation site daily. All working areas shall be broom cleaned regularly.

The Vendor will be responsible for arranging trash removal and/or trash dumpster.

At completion of the project, the Vendor shall remove all grease, mastic, adhesives, dust, dirt, stains, labels and other foreign material from the site.

If the Vendor fails to clean up at the completion of the work day, the Owner may do so and the cost thereof shall be charged to the Vendor.

10.1.5. Coordination With Operations

Coordination between Vendor and the Owner or the Owners representative will be required.

Installation coordination and scheduling meetings will be conducted on site. The Owner or the Owner's representative shall be responsible to schedule meetings. Coordinators from all parties will be required to attend.

10.1.6. Installation Drawings

Installation drawings (footprints, locations, services, wireways, etc.) must be provided by the Vendor at least twelve (12) weeks prior to installation. The Owner and/or Owner's Agent will review and, if acceptable, approve the drawings within two (2) weeks thereafter. The Equipment Vendor shall provide technical assistance during all necessary equipment positioning. This on site assistance must be included in the Base Proposal.

10.2. Startup

10.2.1. Vendor Representatives

The Vendor shall provide representatives during startup. Vendor representatives shall remain on site until the equipment acceptance criteria are met. Following Final Commissioning and Acceptance, at least one (1) Vendor representative shall remain on site for a minimum of one (1) month after the total system is under production. This representative shall be capable of providing hardware, software and control system support. This cost must be included in the overall project cost. The Equipment Supplier is fully responsible for the actions of all employees and contracted representatives.

11. TRAINING

The Vendor is to provide training for the Owner or the Owner's designated representative in the proper installation, operations, and preventive/corrective maintenance of the entire system.

11.1. General Requirements

11.1.1. Program Development

The Vendor shall develop the specific program, which, in their opinion, will be necessary to actually achieve the levels of skills required to operate and maintain the equipment at the throughput and operating levels indicated in this specification. This program shall be explained in detail in the Vendor's proposal, including allocation of time required.

The program shall be designed so that the Purchaser's personnel are adequately prepared to assume complete operation of the equipment at the successful completion of acceptance testing.

All materials and presentations will be in English. The vendor shall supply, at no additional charge, any or all materials translated to Spanish upon the Owner's request.

The training program must be approved by the Owner or the Owner's agent.

11.1.2. Supply of Materials and Labor

The Vendor is responsible for the development of a program, supply of materials and labor required to ensure that the Owner achieves the level of skill necessary to operate and maintain the equipment at the throughput and operating levels indicated in this RFP. The program prepared by the Vendor must be designed to ensure that the Owner's personnel are adequately prepared to assume complete operation of the equipment at the successful completion of acceptance testing. All materials and presentations must be in English.

It is expected that the documentation will be written and presented so plant personnel can easily comprehend the material.

11.1.3. Training Location

All training, as provided by the Vendor, shall take place at the Agency's facility with the exception of Vendor facility visits as desired by Owner. The Owner will provide adequate classroom space for formal training as required by the Vendor. The Owner shall provide aids to support training sessions when requested by the Vendor.

11.1.4. Property of Training Materials

All training manuals, documentation and aids shall become the property of the Agency and used at the Agency's discretion for future training of other Owner personnel. The Owner reserves the right to record any training sessions and the right to use these materials at its discretion.

11.1.5. Vendor Facility Availability

It is probable that the Agency will designate one or more of its personnel to become deeply involved with the control system. While this may require technical courses at other control device manufacturers' training facilities at the Owner's expense, it may further require extended visits to the Vendor's facility. The Vendor is to make his facility available to the Agency's personnel to support this training effort. Further, the Vendor is to recommend dates, times and durations for facility visits by Agency's personnel at key milestones during the system development.

11.1.6. Additional Training

The Vendor shall make recommendations concerning additional technical or general training which may benefit the Owner and which is available through other organizations and institutions. The Owner will determine what other training, if any, will be scheduled at Owner's expense.

11.1.7. Vendor Personnel

The Vendor shall provide an adequate number of personnel who maintain sufficient management, technical and communications skills to provide the Agency's personnel with the skill levels necessary to operate and maintain the equipment at the specified throughput and operating levels.

11.2. Supervisory Training

This series is designed to familiarize the Agency's management with the system operation and how it will effect department operation.

11.2.1. Attendees

General Manager

VP Quality Assurance

Information Systems Consultant

Shipping Manager

11.2.2. Topic Coverage

System operation

Operational interface

11.2.3. Methods

1. Audio-visual presentations by Vendor personnel
2. Group discussion
3. Visits to existing appropriate organizations (at Owner's discretion and expense)

11.3. Maintenance Training

This series will instruct the maintenance team in all phases of system maintenance. Maintenance training shall be conducted prior to startup and debug of the system.

11.3.1. Attendees

Maintenance Supervisors

Mechanical Maintenance Staff

Electrical Maintenance Staff

11.3.2. Topic Coverage

System Overview

Preventive Maintenance Practices

Lubrication

Periodic Checks and Adjustments

Hardware

Accuracy

Control

Troubleshooting

Etc.

(Some of the sessions may be divided into separate mechanical and electrical groups.)

11.3.3. Training Methods

1. Audio-visual presentations in structured classes.
2. On-the-job training throughout system installation.
3. Maintenance manuals.

11.4. Equipment Operational Training

The general intention of this series is to train the operating personnel to operate the various pieces of equipment.

11.4.1. Attendees

Distribution Supervisors

Distribution Operators

Maintenance Staff

11.4.2. Topic Coverage

General theory

Startup and shutdown

Operating procedures

Alarm responses

11.4.3. Training Methods

1. Audio-visual presentation/structured classes
2. Videotape analysis
3. Operator manuals

11.5. Submittals**11.5.1. Definition of Training Program**

The Vendor shall submit a descriptive definition of the training program to be provided. Further, the Vendor shall submit, in outline form, a training schedule indicating the types, methods (i.e., formal and/or classroom, on-the-job), frequency and durations of training programs. Training programs should recognize the basic functional divisions by dividing the training into groups such as supervisors, operators and maintenance personnel.

11.5.2. Integrated Training Program

The Vendor shall integrate the training program development and implementation plan within the project schedule showing the types of training and scheduled time span.

11.5.3. Training Manual

The Vendor shall submit complete training manuals and aids to Owner for approval no less than two (2) weeks prior to the session in which they are to be used. This manual is to include training procedures for each employee and their related tasks. The document will be used to retrain replacement personnel and must therefore be comprehensive in scope. If this is available electronically, the file is to be provided to the Owner.

Ten (10) copies of this manual must be provided.

11.6. Acceptance

The Vendor shall be responsible for training Agency's personnel to operate the equipment at the performance levels specified in this document prior to acceptance.

It is not sufficient to merely conduct the training sessions.

12. OWNER ACCEPTANCE CRITERIA

12.1. Scope

The Owner will accept the S/RM and Conveyor System after the Vendor has successfully demonstrated to the Owner or Owner's Representative that this system (or portions of the system) performs to these specifications. The system will not go into operation until the static and operational acceptance tests have been successfully conducted as discussed below. The system will not be accepted by the Owner until completion of the reliability test.

12.2. Notification Of Readiness

Upon completion of installation and debugging, the Vendor shall notify the Owner of the readiness of the system for performance of the acceptance procedure as defined hereafter. In the case of Owner performed installation the Owner and the Vendor will jointly determine the readiness of the system for testing. The Owner will certify that the operational areas are available and schedule the acceptance test.

12.3. Acceptance Test - Static

Together with the notification of readiness, the Vendor shall identify a person to represent it in a visual system inspection. On acknowledgment of readiness of the system (or portions of the system), the assigned Vendor and Owner representatives shall conduct a visual inspection noting any discrepancies between the system and the contract specifications or other defects in workmanship or material. The results of the inspection shall be accurately documented with the appropriate action to be taken and noted. If the two (2) persons conducting the inspection cannot reach a unanimous opinion, the defect or item shall be appropriately noted in their report and submitted in writing to one (1) member of senior management from each of the two (2) parties for resolution.

The results of the visual system inspection shall be of the following:

- a) If the system is found to be without patent defects or patent variation to specifications by both parties, there shall be a written statement of Owner and Vendor indicating same and the acceptance procedure shall proceed to the next element.
- b) If patent defects or patent variations from specifications are found, they shall be appropriately noted on a "punch list" with recommended corrections and an agreed upon schedule for completion of corrections to both parties' satisfaction before static acceptance is granted.
- c) Any Acceptance pursuant to this Paragraph 11.3 or any use of the system by Owner following such Acceptance shall be without prejudice to, and shall not be deemed a release of, any claim which may thereafter be made by the Owner with respect to any latent defect in material or workmanship or any latent discrepancy between the system and the Contract specifications as of the date of the foregoing Acceptance.

12.4. Acceptance Test - Operational

This Acceptance Test will consist of operating the S/RM and Conveyor System and simulating actual operation at the Owner's discretion. During this test, checks and measurements will be made on controls, mapping accuracy, all mechanical functions, load pickup/delivery, diagnostics, start-up/shutdown procedures, safety switches, emergency stops, collision avoidance, guarding and any other function deemed necessary.

Appropriate quantities and sizes of product as agreed to by the Owner or Owner's Agent and the Vendor will be made available for the S/RM system test. The Operational Acceptance Test will include two parts.

The first test is the extractor position verification test. In this test each S/RM will store and retrieve a pallet in every rack and P&D location. The S/RM vendor will be responsible for developing an internal program to complete this test.

The second test is the throughput test. This test will be an eight (8) hour test for each S/RM. The S/RM will be required to simulate a live storage and retrieval process. Rates will be evaluated and compared to the throughput capability defined by the Vendor in the proposal. The S/RM vendor will be responsible for developing an internal program to complete this test.

The results of this operational test shall be one of the following:

- a) If the system is found to be without defects of variation to specifications by both Vendor and Owner, there shall be a written statement of Owner and Vendor indicating same and the acceptance procedure shall proceed to the next element.
- b) If defects or variations from specifications are found, they shall be appropriately noted on a "punch list" with recommended corrections and an agreed upon schedule for completion of corrections to both parties' satisfaction before operational acceptance is granted.
- c) Any Acceptance pursuant to this Paragraph 11.4 or any use of the system by Owner following such Acceptance shall be without prejudice to, and shall not be deemed a release of, any claim which may thereafter be made by the Owner with respect to any latent defect in material or workmanship or any latent discrepancy between the system and the Contract Specifications as of the date of the foregoing Acceptance.

12.5. Reliability Test

Upon successfully completing the Operational Acceptance Test, the S/RM and conveyor system will be used in an actual operation for a period of four (4) calendar weeks. At the end of this period the Owner will again inspect the S/RM and conveyor system during operation. During this test all S/RM and conveyor activities will be directed by the WMS.

- a) If the S/RM and conveyor system is found to be without defects or variations to specifications by the Owner, the S/RM system acceptance testing will be complete and the warranty period begins.

- b) If the S/RM and conveyor system has defects or variations to the specification, they shall be noted on a "punch list" with recommended corrections and an agreed upon schedule for completion of corrections by both parties.
- c) Any Acceptance pursuant to this Paragraph 11.5 or any use of the system by Owner following such Acceptance shall be without prejudice to, and shall not be deemed a release of, any claim which may thereafter be made by the Owner with respect to any latent defect in material or workmanship or any latent discrepancy between the system and the Contract Specifications as of the date of the foregoing Acceptance.

During the reliability test the system must have an up-time of ninety-nine (99) percent or greater. If the system is down for fifteen (15) minutes or more at any time, the test must be started again.

When the system has passed the reliability test, the warranty period will begin.

12.6. Computer System Requirements

In addition to the performance requirements specified in other subsections of this specification, the computer system shall meet the following requirements:

- a) Control system recovery time shall not exceed two (2) hours following a hardware or software failure.
- b) Computer system availability during operation shall be greater than 99%. Availability is defined as the ability of the control system to perform all operations required by this Specification.
- c) Response times for the S/RM to react to the operator interface on the end-of-aisle controller shall range from 0 to 2 seconds.

13. WARRANTY

The equipment shall be warranted for workmanship, materials, design, installation and performance according to the Specification for one year from day of acceptance at the Purchaser's plant. All warranties shall run to Purchaser, its successors, assigns, and customers, and to the users of its products, and shall be construed as conditions as well as warranties. All defective goods shall be immediately repaired or replaced solely at the Supplier's expense during the warranty period.

All repairs and/or replacements made under this provision and accepted by the Purchaser shall constitute a new acceptance, consequently, a new one year warranty for the repaired or replaced portions only.

If the Supplier fails to diligently proceed with corrective action within twenty-four (24) hours of written notification from the Purchaser, the Purchaser may take immediate corrective action. Any costs due to such efforts shall be reimbursed to the Purchaser by the Supplier.

Any extension of the standard warranty, at a cost above and beyond the base purchase, is invited.

14. DOCUMENTATION

All drawings and manuals shall be in the English language. Spanish versions are to be requestable for training purposes.

14.1. Drawings

All drawings are to become the property of the Owner. If the drawings are commercial Vendor models, the mechanical detail drawings need not be included and the assembly, pneumatic, and wiring drawings can be reproductions of the Vendor drawings.

14.1.1. Installation Drawings

14.1.1.1. For Approval Installation Drawings

The Vendor shall provide three (3) sets of installation drawings at least six (6) weeks prior to beginning installation.

14.1.1.1.1. Drawing Requirements

- a) footprints
- b) locations
- c) services
- d) wireways

14.1.1.2. At Installation Drawings

The Vendor shall provide three (3) complete, updated sets of prints at installation.

14.1.2. As-Built Drawings

The Vendor will supply one (1) set of updated As-Built drawings and diskette (AutoCAD) within six (6) weeks after acceptance.

14.1.2.1. Drawings Required

- a) Mechanical assembly drawings
- b) Electrical wiring diagrams
- c) Electrical field component layout drawings
- d) Pneumatic diagrams
- e) Detail drawings
- f) Installation drawings

14.2. Equipment Manuals

14.2.1. Operation Manuals

Operator Manuals - The Vendor shall provide ten (10) complete manuals prior to the start of installation. The Vendor will supply updated pages for all manuals within four (4) weeks after acceptance.

These documents should describe the operator's responsibilities, duties, and options. The manuals shall walk the operator through each function detailing prompts, required inputs, and resultant action. The manual should describe, by function, all error messages issued to the operator and the action the operator is expected to take. The document should describe basic operation of the hardware and shall define the procedure for requesting hardware service.

14.2.1.1. General Topics of Operator Manuals

- a) Startup procedures
- b) Shutdown procedures
- c) Error code list
- d) E-Stop recovery procedures
- e) Maintenance shutdown procedures

14.2.2. Equipment Manuals

The Vendor shall provide three (3) complete manuals at the start of installation. The Vendor will supply updated pages for all manuals within four (4) weeks after acceptance.

These manuals should include maintenance procedures and remedial maintenance operations. Proper maintenance is essential to successful operation. These manuals should be written in clear, easy to understand terms. Charts and checklists should be provided to support ongoing maintenance and simplify troubleshooting operations.

Software - This document should describe the user's options and shall be organized by process area. The manual should walk the user through each function detailing prompts, required inputs, and resultant action. The manual should describe, by function, all error messages issued to the user and the action the user is expected to take.

Hardware - This document should describe operation of the various hardware and inform the user of potential significant hardware problems, how to identify hardware problems, and procedures required to request hardware service. Standard equipment manuals for all Original Equipment Manufacturer (OEM) supplied equipment should be included in the hardware user manual or as a separate package.

14.2.2.1. General Topics of Equipment Manuals

- a) Narrative description of the system operation sequence
- b) Maintenance requirements (components, locations, etc.)
- c) Periodic maintenance check lists (inspections, adjustments, lubrication requirements, type of lubricant, frequency of PM, etc.)
- d) Commercial component manuals
- e) Recommended spare parts
- f) Any other information necessary for proper maintenance

14.3. Electrical Documentation

14.3.1. Electrical Drawings

Electrical/Electronic Standard for Industrial Equipment details the Electrical Drawings required.

14.3.2. Information Required

1. A narrative description of the system sequence of operation
2. Detailed timing charts
3. Electrical schematics
4. Other information necessary for proper operation and maintenance

14.4. Software Documentation

14.4.1. Software Provision

The Vendor shall provide three (3) complete sets of software documentation at least six (6) weeks prior to installation. An updated set of documentation shall be supplied within four (4) weeks after acceptance to complete the acceptance testing requirements.

14.4.2. Information Required

14.4.2.1. PLC/PC Programs

PLC/PC programs - Three (3) copies of the control program (disk).

14.4.2.2. Logic Diagrams

Logic Diagrams - Logic flow diagrams utilizing international logic symbols.

14.4.2.3. Ladder Listings

Ladder Listings - Two (2) copies of a detailed printout on the complete Ladder Listings with contact, coil, text and rung comments for each program.

14.4.3. Software Rights

14.4.3.1. PLC Software

Software and its related documentation are the property of the Owner and become so at equipment acceptance. Owner reserves the right to make unlimited copies of the software and related documentation for use within its facilities.

14.4.3.2. Computer Software

All files relating to the software program are to be provided on data CD. Three (3) copies are required.

Source code files, the executable files (.EXE), and all development tools required shall be provided. It is not sufficient to provide only the executable files.

Any custom or specialty software written for the sole purpose of operation of the equipment as defined in this Specification shall be made available to, and shall become the property of, the Owner.

Under no circumstances will the Owner be forced to single-source a Supplier to perform modifications to equipment or software, should any be required.

The Owner reserves the right to make unlimited copies of the software and related documentation for use within its facilities.

14.5. Bill Of Materials

For the S/RM and conveyor system, two (2) copies of the complete Bill of Materials shall be supplied reflecting part number, description, quantity and material as applicable for all parts. The following is a sample format for racks. A Bill of Materials should be provided for each major sub-system: ASRS Cranes, Rack, Pallets, Pallet and Carton Conveyor, and the Computer Control System.

MATERIAL AND COMPONENT LIST EXAMPLE

ITEM	QUANTITY	COMPONENT	DESCRIPTION
1	25	Upright column Product I.D. #12345 Weight each 190 lbs.	18,000 lbs. capacity 54" deep x 224" high 12 gauge column 12 gauge horizontal lacing with tubular diagonal lacing
2	30	Load Beam Product I.D. #12345 Weight each 100 lbs.	20,000 lbs. capacity 240" long x 1 1/2" x 3"
3	100	Load Beam Support Bracket Product I.D. #12345 Weight each 10 lbs.	6,000 lbs. capacity

14.6. Spare Parts

14.6.1. Non-provided Spare Parts List

The Vendor shall provide a spare parts list with prices and estimated delivery times in sufficient time to support parts availability after acceptance. The list shall include commercial component Vendor names and part numbers in addition to, or in lieu of, the equipment Vendor part names and numbers.

14.6.2. Ordering

It is the responsibility of the installing plant to place an order for desired maintenance spare parts in sufficient time for delivery prior to acceptance.

14.6.3. Parts Available At Start Up

It is the Vendor's responsibility to have sufficient parts available for debug/startup at site.

15. STATE OF IDAHO DIVISION OF PUBLIC WORKS DESIGN/BUILD AGREEMENT TERMS AND CONDITIONS

**STATE OF IDAHO
DIVISION OF PUBLIC WORKS
Design/Build Agreement
Idaho State Liquor Dispensary Automated Storage Retrieval System
DPW # 08321**

THIS DESIGN/BUILD AGREEMENT with Fixed Contract Price (“Agreement”) is made and entered into by and between THE STATE OF IDAHO, as represented by the DIVISION OF PUBLIC WORKS (“DPW”), hereinafter referred to as the Owner and _____ COMPANY, INC., hereinafter referred to as the Design/Builder.

This Agreement is for the design and construction of DPW Project No. 08-321, Idaho State Liquor Dispensary Automated Storage Retrieval System (ISLD-ASRS) located at 1349 E. Beechcraft Ct. Avenue, Boise, Idaho 83716 (the “Project”).

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements stated herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, Owner and Design/Builder agree as follows:

ARTICLE 1

THE AGREEMENT AND THE CONTRACT DOCUMENTS

1.1 Contract Defined: “Contract” means and includes this Agreement (and all exhibits) and all Contract Documents.

1.2 Contract Documents Defined. “Contract documents” means and includes the illustrative site plan, the project schedule and the other documents specified below, all of which are incorporated by reference into the Contract.

(a) The Detailed Design and all Design Documents prepared by Design/Builder as of August 29, 2006 and the following attachments:

- (1) Proposal Documents, which include:
 - A. Request for Proposal for design build Services issued **xx/xx/xx** (Bridging document prepared by St. Onge Company)
 - B. Design Proposal & Drawing Set in its entirety. Submitted **xx/xx/xx** including Addendum.

1.3 Enumerated Documents Form Entire Contract. Documents not specifically enumerated in Section 1.2 are not Contract Documents, and do not form any part of the Contract.

1.4 Complete Agreement. The Contract, together with Design/Builder’s and Surety’s performance and payment bonds for the Project, constitute the entire and exclusive agreement between Owner and Design/Builder with reference to the Project.

The Contract supersedes any and all prior documents, discussions, communications, representations, understandings, negotiations or agreements by and between the parties.

1.5 Contract Interpreted As A Whole. The Contract is intended to be an integral whole and shall be interpreted as internally consistent. Work required by any page, part, or portion shall be required.

1.6 Provision Of All Things Required. Anything that may be required, or reasonably implied or inferred by or from the Agreement or Contract Documents that make up the Contract, or any one or more of them, shall be provided by Design/Builder for the Fixed Contract Price.

1.7 Privity Only With Design/Builder. Nothing contained in the Contract shall create, nor be interpreted to create, privity or any other relationship whatsoever between Owner and any person except Design/Builder, and similarly, between Design/Builder and any person except Owner.

1.8 Agreed Interpretation of Contract Terms. When a word, term, or phrase is used in the Contract, it shall be interpreted or construed first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage. Headings are used solely for convenience.

1.9 Terms "Include" and "Days". "Include," "includes," or "including," as used in the Contract, shall be deemed in all cases to be followed by the phrase "without limitation." The term "days," unless otherwise specified, shall mean calendar days.

1.10 Use of Singular and Plural. Words or terms used as nouns in the Contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.11 Definition of Material Breaches Not Exhaustive. The specification of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of the Contract shall not imply that any other non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of the Contract.

ARTICLE 2

DESIGN/BUILDER'S REPRESENTATIONS AND WARRANTIES

2.1 Specific Representations. In order to induce Owner to execute this Agreement and recognizing that Owner is relying hereon, Design/Builder, by executing this Agreement, and without superseding, limiting, or restricting any other representation or warranty set forth elsewhere in this Agreement, or the Contract, or implied by operation of law, makes the following express representations to Owner:

(a) Design/Builder, on its own behalf or through contracts with others, is professionally and fully qualified to act as the design professional and the general contractor for the Project **and is, and will remain, properly licensed in the state of Idaho to practice engineering and architecture and general**

contracting by all public entities having jurisdiction over Design/Builder or the Project. In particular, but without limitation, Design/Builder represents that it is licensed as a Class AAA Public Works Contractor by the State of Idaho, pursuant to I.C. § 54-1904, and as such is fully qualified to perform all the Work on the Project;

(b) Unless otherwise expressly provided in this Agreement, Design/Builder will obtain and maintain all necessary licenses, permits or other authorizations necessary to allow Design/Builder to perform the Work for the Project until Design/Builder's duties have been fully satisfied;

(c) Design/Builder has the expertise, experience, and knowledge as well as the necessary plant, personnel and financial capability to perform the Design Services and the Work in accordance with the terms of the Agreement;

(d) Design/Builder represents that all design services for the Project have been or will be performed by _____ ARCHITECTS/ENGINEERS; pursuant to agreements between Design/Builder or its agents and said entities. Design/Builder further represents that _____ Company (Structural), _____ ENGINEERERS (Mechanical), _____ ENGINEERS (Electrical), employ design professionals, duly licensed in the state of Idaho and qualified to perform the Design Services required by this Agreement, and that all Design Services specified or contemplated in this Agreement will be performed by or at the specific direction of such design professionals;

(e) Prior to the execution of this Agreement, Design/Builder has visited and inspected the entire Project site and relevant areas adjacent thereto and the local conditions under which the Project is to be designed, constructed and operated and Design/Builder has reviewed the site as necessary, to determine the conditions under which the Work will be performed, and Design/Builder accepts the conditions of the Project site and areas adjacent thereto which may impact the performance of the Work and has taken those conditions into account in entering into the Agreement, provided, however, that Design Builder's acceptance herein applies to the extent that the Site conditions are unchanged in any material respect from those described in the demolition design documents;

(f) In entering into this Agreement, Design/Builder represents that it has made such independent inspections as it has determined, based on its extensive experience, to be reasonably necessary and prudent. The Fixed Contract Price includes amounts which Design/Builder understands and agrees are sufficient to cover any foreseeable conditions (concealed, subsurface, or other). Consequently, should foreseeable concealed conditions encountered in the performance of the Work, whether surface or subsurface, be at variance with the conditions indicated by the Contract Documents or at variance with Design/Builder's expectations, Design/Builder agrees that no adjustment in the Fixed Contract Price shall be made, and Design/Builder shall complete the Work, absorbing all such unexpected expense; provided, however that Design/Builder may seek an adjustment to the Fixed Contract Price if the conditions (including conditions addressed in Section 16.2) encountered in the performance of the Work are covered by and within risks expressly assumed by the Owner in this Agreement;

(g) Design/Builder represents it has developed or fully reviewed the design attachments described in Section 1.2 of this Agreement. Based thereon, Design/Builder represents that it will prepare the Detailed Design to be fully consistent with the purposes, standards, and provisions set forth in said attachments, and that the Project will be and is constructible in accordance with said documents and the Detailed Design;

(h) The Design/Builder warrants that the Contract Time is a reasonable period for performing the work, and that the Scheduled Completion Date provides a reasonable period of time for performing the Work;

(i) The Design/Builder represents it has received, reviewed, compared, studied, and carefully examined all of the documents which make up the Contract, and with regard to any furnished by Owner has had any questions about them answered to its satisfaction, and finds such documents in all respects to be complete, accurate, adequate, consistent, coordinated, and sufficient for Design/Builder to complete its performance as set forth in the Contract Documents. Such review, comparison, study, and examination shall be a warranty that the Project can be finally designed and constructed in accordance with the Detailed Design to be completed by Design/Builder and to the quality level specified herein for the Fixed Contract Price;

(j) Design/Builder assumes full responsibility to Owner for the improper acts and omissions of its Subcontractors or others employed or retained by Design/Builder in connection with the Project; and

(k) Design/Builder shall prepare all documents and things required by the Contract, including the Detailed Design and Design Documents, and shall perform all Work in such a manner that they shall be accurate, complete, and for an amount not to exceed the Fixed Contract Price or the fixed prices established, and that all such documents and things prepared and all Work performed by Design/Builder shall be sufficient to accomplish the purposes of the Project, as identified by Owner, and shall be in conformity and comply with all applicable law, codes, and regulations.

ARTICLE 3

DESIGN SERVICES PRIOR TO EXECUTION OF AGREEMENT

3.1 Completed Tasks. Prior to the execution of this Agreement, Design/Builder has completed the preliminary design documents referenced as attachments in Section 1.2(a)(1) of this Agreement.

3.2 Further Design Services. From the documents referenced in Section 3.1, Design/Builder shall prepare Detailed Design documents for the Project pursuant to the provisions of Article 4 of this Agreement.

ARTICLE 4

DETAILED DESIGN

4.1 Time For Preparation. **By The date specified in the Proposers schedule submitted as a requirement of the proposal,** Design/Builder shall prepare

and submit to Owner the complete Detailed Design.

4.2 Fast Track Acknowledged. The Project, including the Design Services and the Work to be performed by Design/Builder may be conducted by Design/Builder using fast track design and construction principles and practices, subject to the provisions in Article 7 regarding the issuance of a Notice to Proceed for Work. Design/Builder may prepare the Detailed Design for specified portions of the Work, and upon approval of such parts of the Detailed Design by Owner may perform such portions of the Work, even though the entire Detailed Design has not been completed by Design/Builder or approved by Owner. Notwithstanding the provisions of this Section, Design/Builder agrees that all other provisions of this Agreement must be satisfied regarding the performance of the Design Services and the Work, and that the Design/Builder assumes all responsibility for all increased costs and all delays in the completion of the Project which are caused by Design/Builder's utilization of any fast track procedures or practices, including dividing the Detailed Design into specified portions as set forth in the project schedule, and completing the Work according to those approved portions of the Detailed Design.

4.3 Detailed Design Defined. The "Detailed Design" means and includes all Design Documents which shall describe with specificity all elements, details, components, materials, and other information necessary for the complete construction of the Project and the rendering of the Project fully operational for its intended purposes, as identified by the Owner, including compliance with all testing, permitting, qualifications, certifications, validations, and obtaining regulatory approvals by all applicable regulatory authorities required to render the Project and all its components operational and functionally and legally usable for their intended purpose. Subject to the provisions of Section 12.7 of this Agreement, Owner shall review and approve, where appropriate, the Design Documents, or any portion thereof.

4.4 Design Documents Defined. "Design Documents" means all the design documents provided by Design/Builder and approved by Owner pursuant to the Agreement, including, without limitation, those for use in constructing the Project, performing the Work, and the rendering of the Project fully operational for its intended purposes, as identified by Owner, and shall include, without limitation, detailed plans, drawings, specifications, manuals, and related materials prepared by or on behalf of Design/Builder.

4.5 Preparation of Project Site Information. Design/Builder shall prepare, as necessary, surveys and topographic information needed to establish line and grade of sewers, location of property lines and easements. Sewer easements, both construction and permanent, shall be referenced to property lines by field surveys, and plans shall include the location of any improvements as it relates to property lines.

4.6 Design Services Defined. "Design Services" means any and all architectural, engineering, or design tasks or services required to be performed by Design/Builder for the completion of the Project, and all labor, materials, supervision, equipment, computers, documents, and other things necessary for the performance of such task or services.

4.7 Quality of Design Services. Design/Builder shall be responsible for the professional quality, completeness, accuracy, and coordination of the Design Documents. Design/Builder shall provide Design Services that will result in an operationally cost-efficient and economical facility that meets all environmental and

regulatory requirements as of the date hereof, and uses the most appropriate available technology.

4.8 Compliance with Laws and Regulatory Requirements. In providing Design Services, Design/Builder shall comply with the lawful requirements of all federal, state, and local authorities having lawful jurisdiction over the Project. Design/Builder shall design the Project to meet all applicable requirements of building control laws and regulations in relation to the design, construction, occupation, and operation of the Project, including, without limitation, environmental standards, fire and safety regulations, and requirements and compliance with all other applicable standards and codes.

4.9 Duty to Correct Errors. Design/Builder shall, without additional compensation, immediately correct any errors, omissions or deficiencies in its Design Services and Design Documents.

4.10 Schedule of Design Services. As a supplement to and consistent with the project schedule attached hereto and referenced in Section 1.2, and to the extent not already a part of said project schedule, Design/Builder shall submit for Owner's approval a design schedule for the performance of Design/Builder's Design Services which shall include allowance for reasonable time required for Owner's review of submissions and for approvals of authorities having jurisdiction over the Project, and which shall describe in detail the break-down of the portions of the Detailed Design specified by Design/Builder in completing the entire Detailed Design, and the dates by which those specified portions of the Detailed Design will be completed. The design schedule, when approved by Owner, shall not, except for good cause, be exceeded by Design/Builder. Should Design/Builder, at any time during the course of performing the Agreement, have any reason to believe that it will be unable to meet any completion date in accordance with the design schedule, it shall promptly notify Owner's Representative in writing. In such notice, Design/Builder shall state the reason for the delay, including the party responsible, if any, and the steps being taken to remedy or minimize the impact of the delay. Failure of Design/Builder to submit such notice shall constitute a waiver by Design/Builder of any claim for an adjustment to the design schedule or the Contract Time. Subject to the provisions of Section 12.7 of this Agreement, Owner shall review and approve, where appropriate, the design schedule, or any portion thereof. The design schedule shall be incorporated into and be a part of the project schedule.

ARTICLE 5

PERFORMANCE OF CONSTRUCTION WORK

5.1 General Intent. Design/Builder shall perform all Work necessary to construct the Project in accordance with the Contract and to render the Project and all its components operational and functionally and legally usable for its intended purposes, as identified by Owner.

5.2 Work Defined. "Work" shall mean whatever is done by or required of Design/Builder to perform and complete its duties relating to the construction of the Project, including, without limitation, the following:

- (a) Construction of the whole and all parts of the Project in full and strict conformity with the Contract;

(b) The provision and furnishing, and prompt payment therefore, of all labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, fuel, heat, light, cooling, other utilities and things required for the construction of the Project;

(c) The procurement and furnishing of all necessary building permit[s] and other permits required for the construction of the Project, and the payment of all applicable fees, provided, however, that the Design/Builder is not responsible for and will not be required to pay impact fees imposed by local taxing authorities to which the Owner is not subject;

(d) The creation and submission to Owner of detailed as-built drawings depicting all as-built construction;

(e) The furnishing of all equipment and product warranties, manuals, test results and user guides required by the Contract or otherwise reasonably available to Design/Builder;

(f) The furnishing of all other services and things required or reasonably inferable from the Contract Documents, including the provisions of Article 8 below.

ARTICLE 6

OWNER'S REPRESENTATIVE

6.1 Owner's Representative. The Owner's Representative for the Project shall be the Administrator of the Division of Public Works or his designated representative. The Owner's Representative can act for and on behalf of Owner unless otherwise specified herein. Owner's Representative has full authority to act on behalf of and to the same extent as Owner.

ARTICLE 7

TIME FOR CONSTRUCTION: THE CONTRACT TIME

7.1 Commencement of Construction. After Owner has approved the Design Documents for the Detailed Design, or specific portions thereof, Owner shall promptly notify Design/Builder in writing, by issuance of an applicable Notice to Proceed for Work, that Design/Builder should proceed with the Work or approved portions of the Work.

7.2 Time for Completion. Design/Builder shall commence the Work when authorized by Owner under Section 7.1, and the Work shall be carried out regularly and without interruption. Design/Builder shall substantially complete the ISLD-ASRS portion of the Work for owner use and occupancy not later than **xx/xx/xx**, or such other date as may by Change Order be designated (the "Scheduled Completion Date"). The number of calendar days between the effective date of the Notice to Proceed and the Scheduled Completion Date is the "Contract Time." Design/Builder shall achieve Final Completion of the Work no later than **xx/xx/xx**, or by such other date as may by Change Order be designated..

7.3 Liquidated Damages for Delay in Substantial Completion.

(a) Design/Builder shall be assessed \$500.00 per day as liquidated damages for each day of unexcused delay in achieving Substantial Completion of the ISLD-ASRS portion of the project beyond the Scheduled Completion Date xx/xx/xx.

(b) Any sums due and payable under this Section 7.3 by Design/Builder shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by Owner, estimated at the time of executing this Agreement. Such liquidated damages shall apply regardless of whether Design/Builder has been terminated by Owner prior to Substantial Completion so long as Design/Builder's actions or inactions substantially caused the delay; provided, however, that if Design/Builder is in substantial compliance with the project schedule at the time of termination, no liquidated damages will be assessed against Design/Builder. All liquidated damages shall be in addition to and not in preclusion of the recovery of actual damages resulting from other defects in Design/Builder's performance hereunder for matters other than delays in Substantial Completion. When Owner reasonably believes that Substantial Completion will be inexcusably delayed, Owner shall be entitled, but not required, to withhold from any amounts otherwise due to Design/Builder an amount then believed by Owner to be adequate to recover liquidated damages applicable to such delays. Owner shall provide Design/Builder a ten (10) day notice of its intent to withhold liquidated damages and the amount of said liquidated damages to be withheld. If and when Design/Builder overcomes the delay in achieving Substantial Completion, or any part thereof, for which Owner has withheld payment, Owner shall promptly release to Design/Builder those funds withheld, but no longer applicable as liquidated damages.

7.4 Liquidated Damages for Delay in Final Completion.

(a) Design/Builder shall achieve final completion no later than 30 days after achieving substantial completion. In the event Design/Builder fails to achieve Final Completion, Liquidated Damages in the amount of \$100 per day will be assessed.

(b) Any sums due and payable under this Section 7.4 by Design/Builder shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by Owner, estimated at the time of executing this Agreement. Such liquidated damages shall apply regardless of whether Design/Builder has been terminated by Owner prior to Final Completion so long as Design/Builder's actions or inactions substantially caused the delay; provided, however, that if Design/Builder is in substantial compliance with the project schedule at the time of termination, no liquidated damages will be assessed against Design/Builder. Such liquidated damages shall be in addition to and not in preclusion of the recovery of actual damages resulting from other defects in Design/Builder's performance hereunder for matters other than delays in Final Completion. When Owner reasonably believes that Final Completion will be inexcusably delayed, Owner shall be entitled, but not required, to withhold from any amounts otherwise due to Design/Builder an amount then believed by Owner to be adequate to recover liquidated damages applicable to such delays. If and when Design/Builder overcomes the delay in achieving Final Completion, or any part thereof, for which Owner has withheld payment, Owner shall promptly release to Design/Builder

those funds withheld, but no longer applicable as liquidated damages.

7.5 Time is of the Essence. All limitations of time set forth herein are material and time is of the essence of the Agreement.

7.6 Owner's Approvals/Project Schedule. The attached project schedule identifies dates and durations for Owner's approvals and actions. Failure of the Owner to adhere to this schedule shall be cause for time extensions to the Contract Time provided Design/Builder complies with the provisions of Article 16 of this Agreement.

ARTICLE 8

ADDITIONAL DUTIES AND RESPONSIBILITIES OF DESIGN/BUILDER

8.1 Design/Builder to Perform All Design Services and Work Required by the Contract. The intent of the Contract is to require complete, correct and timely execution of the Design Services and the Work. Any and all Design Services and Work that may be required, reasonably implied or reasonably inferred by the Contract, or any part of it, as necessary to fully comply with the Contract and produce the intended result, or as otherwise indicated by Owner as of the effective date of this Agreement consistent with the attachments to this Agreement described in Section 1.2, shall be provided by Design/Builder without increase to the Fixed Contract Price.

8.2 Strict Compliance With the Contract Documents. All Work performed by Design/Builder shall be in strict compliance with the Contract Documents, unless deviation from strict compliance has been approved by Owner. "Substantial compliance" is not strict compliance. Any Work not in strict compliance with the Contract Documents is defective.

8.3 Supervision of the Work. The Work shall be strictly supervised and directed using Design/Builder's best and highest skill and effort, Design/Builder bearing full responsibility for any and all acts or omissions of those engaged in the Work on behalf of Design/Builder.

8.4 Warranty of Workmanship and Materials. Design/Builder warrants and guarantees to Owner that all labor furnished to progress the Work under the Agreement will be competent to perform the tasks undertaken and is the best quality reasonably obtainable, that the product of such labor will yield only high quality results in strict compliance with the Contract, that materials and equipment furnished will be of high quality and new unless otherwise permitted by the Contract, and that the Work will be of high quality, free from faults and defects and in strict conformance with the Contract. Any and all Work not strictly conforming to these requirements shall be considered defective and shall constitute a breach of Design/Builder's warranty.

8.5 Commencement of Guarantee and Warranty Periods. Special or specific guarantees and warranties, which are required by the Agreement to run for a fixed period of time, shall commence running on the date of Substantial Completion of all the Work.

8.6 Design/Builder's Schedule of Construction. Design/Builder, within fifteen (15) days after the commencement of any construction activities, shall submit to Owner, for its information, and comply with, Design/Builder's schedule of construction for completing the Work by the Scheduled Completion Date. The schedule of construction

shall be a detailed critical path ("CPM") schedule in a form mutually agreeable to Owner and Design/Builder. The schedule of construction shall be updated at least monthly and shall be revised to reflect conditions encountered from time to time and shall be related to the entire Project. Each such update shall be furnished to Owner. Strict compliance with the requirements of this Section shall be a condition precedent for payment to Design/Builder, and failure to strictly comply with said requirements shall constitute a material breach of the Agreement. Design/Builder must utilize the most current version of Primavera Project Planner (P3) for Windows or, with prior approval of Owner, comparable alternate scheduling software. Scheduling software must be capable of importing/exporting data without degradation to/from the most current version P3 for Windows, including but not limited to, scheduling logic/sequencing, activities, durations, cost loading, etc. The scheduling software must support the following logic relationships: finish to start (FS), finish to finish (FF), start to start (SS) and start to finish (SF) with support for lead/lag. The scheduling software must support resource and cost loading. The scheduling software should be capable of electronically exporting data to an external IBM Compatible file in a standard application such as dBase, Excel, Lotus 123 or transferred to an ASCII file. The storage media must be DOS compatible 3.5 double-sided high-density (1.44MB) floppy disks, or CD Rom, or as approved by Owner.

8.7 Record Copy of Contract Documents. Design/Builder shall continuously maintain at the site, accessible by Owner, an updated copy of the Agreement, including one record copy of the Contract Documents marked to record on a current basis changes, selections and modifications made during construction. Additionally, Design/Builder shall maintain at the site, accessible by Owner, a copy of all shop drawings, product data, samples, and other submittals. Upon Substantial Completion of the Work, or upon Owner's request, all of the documents described in this Section shall be finally updated and delivered to Owner and shall become the property of Owner.

8.8 Review and Approval of Submittals. Design/Builder shall review, study, and approve, or take other necessary action upon all shop drawings, product data, samples, and other submittals to ensure that the Project will be constructed in a timely fashion in strict compliance with the Agreement. All such submittals shall be reviewed and accepted by the appropriate design architect or engineer as applicable. Two (2) copies of all approved submittals shall be included with the record documents at project close out.

8.9 Owner's Option to Review Submittals. Owner shall, in its discretion, have the right to review and approve submittals, and if Owner so elects, Design/Builder shall not perform any portion of the Work as to which Owner has required submittal and review until such Submittal has been approved by Owner's Representative. Approval by Owner, however, shall not be evidence that Work installed pursuant thereto conforms to the requirements of the Agreement nor shall such approvals relieve Design/Builder of any of its responsibilities or warranties under the Agreement. If Owner elects to review submittals, Design/Builder shall maintain a Submittal log which shall include, at a minimum, the date of each Submittal, the date of any re-submittal, the date of any approval or rejection, and the reason for any approval or rejection. Design/Builder shall have the duty to perform a review of all submittals for general content and for apparent compliance with the Detailed Design before submission of same to Owner. Shop drawings and other submittals from Design/Builder do not constitute a part of the Contract, but such submittals are understood to provide further definition and specificity of materials and equipment to be incorporated into the Work; provided, however, that if Design/Builder submits shop drawings or submittals which are at variance with the Contract Documents including the Detailed Design documents approved by Owner,

Design/Builder must designate such fact in writing on or with the shop drawing or submittal. Failure of the Owner to approve submittals in a timely fashion and to adhere to the schedule, shall be cause for time extensions to the Contract Time, provided Design/Builder meets the requirements of Article 16 hereof.

8.10 Procurement and Review of Warranties. Design/Builder shall procure from all Subcontractors and Suppliers and shall transmit to Owner, all warranties required by the Agreement. Design/Builder shall review all such warranties and shall certify to Owner that the warranties are in strict compliance with the requirements of the Contract.

8.11 Procurement of Operations and Maintenance Documentation. Design/Builder shall prepare or procure and shall transmit to Owner all documentation required by the Agreement regarding the operating and recommended maintenance programs relating to the various elements of the Work.

8.12 As-Built Drawings. Design/Builder shall prepare and provide to Owner a set of all as-built drawings that shall be complete and, except as specifically noted, shall reflect performance of the Work in strict compliance with the requirements of the Agreement. As-built drawings shall incorporate subsequent information developed by and from any additional surveying performed by the Design/Builder and shall indicate final as-built elevations of key site conditions including, but not limited to, sewer and water invert/connection, manhole rim, street/gutter high and low points, building first floor finish elevation, etc. For purposes of this Agreement, the Project site shall include the areas defined on the illustrative site plan. As-built drawings shall be in the form of updated Detail Design drawings and submitted in DWG format compatible with AutoCAD 2004 or newer-generated document, including one plotted and printed full size set on Mylar film.

8.13 Compliance with Labor Laws. Design/Builder shall assume all labor responsibility for all personnel assigned to or contracted for the performance of the Work and agrees to strictly comply with all its obligations as employer with respect to said personnel, including without limitation, Idaho Code section 44-1001.

8.14 Testing, Inspections, and Approvals. Owner is responsible for testing and inspections in accordance with Section 12.11. Design/Builder shall provide, at its cost, whatever additional testing and/or inspections Design/Builder deems necessary for the completion of the Project and performance of the Work in accordance with this Agreement.

8.15 Applicable Laws. Design/Builder represents and warrants that it will comply with all public laws, ordinances, rules and regulations applicable to the services to be performed under the Contract, including, without limitation, those relating to the terms and conditions of the employment of any person by Design/Builder in connection with the Work to be performed under the Contract.

8.16 Compliance with Construction Regulations. Design/Builder shall perform the Work in accordance with all construction codes, laws, ordinances or regulations applicable to the design and execution of the Work. Any fine or penalty which may be imposed as consequence of any violation of this provision shall be paid by Design/Builder, and Design/Builder shall, to the extent of any violation by Design/Builder hereunder, indemnify and hold Owner harmless from all loss, damages, and expense, including attorney's fees, resulting from any such violation or alleged violation.

8.17 Permits, Licenses and Notices. All plan review fees (except for plan reviews done by the Division of Building Safety), construction and building permits, licenses and authorizations necessary for the construction of the Project shall be secured on behalf of Owner and paid for by Design/Builder, except as specified in this Agreement. Design/Builder shall notify Owner's Representative when it has received said permits, licenses and authorizations and upon receipt shall supply Owner with copies of same. The originals of said permits, licenses and authorizations shall be delivered to Owner upon completion of the Work, and receipt of such documents by Owner shall be a condition precedent to final payment. Design/Builder shall also give and maintain any and all notices required by applicable laws pertaining to the construction of the Work.

8.18 Site Safety and Security. Design/Builder shall take all reasonable steps and legally required measures at the site to comply with applicable safety regulations and standards and to adequately protect the Work, stored materials, and temporary structures located on the premises, and to prevent unauthorized persons from entering upon the site. Design/Builder shall at all times safeguard Owner's property and employees from injury or loss in connection with the performance of the Agreement. Design/Builder shall at all times safeguard and protect its own partially or completely finished Work and that of the adjacent property and all adjacent work from damage. Design/Builder shall protect Owner's equipment, apparatus, machinery, and other property and all adjacent work with boarding and other safeguards so as to keep the premises free from dampness, dirt, dust, or other damage and shall remove all such temporary protection upon completion of the Work. Design/Builder shall, upon execution of this Agreement, submit to Owner its Project Safety Manual, and shall operate in accordance with said Manual.

8.19 Repair of Collateral Damages. Unless otherwise instructed by Owner, Design/Builder shall repair and return to original condition all buildings, streets, curbs, sidewalks, utilities or other facilities affected by Design/Builder's performance of the Work, all without additional cost to Owner.

8.20 Cleaning The Site. Design/Builder shall keep the site reasonably clean during performance of the Work. Upon Substantial Completion of the Work, Design/Builder shall thoroughly clean the Project site and the Project and remove all waste, debris, trash and excess materials or equipment, together with Design/Builder's property.

8.21 Owner's Access to Work. At all times relevant to the Agreement, Design/Builder shall provide access to the Work to Owner and its designees.

8.22 Decisions Regarding Aesthetic Effect. Owner's decisions in matters relating to aesthetic effect shall be final and have no effect on the Fixed Contract Price if consistent with the intent of the Detailed Design and the project budget.

8.23 Design/Builder To Remain An Independent Contractor. In the performance of the Agreement, Design/Builder's status as an independent contractor shall not be modified or diminished by reason of any instructions issued by Owner or Owner's Representative to Design/Builder or any of Design/Builder's employees, subcontractors, or representatives.

8.24 Periodic Meetings and Updates. Periodically, as agreed to by Owner and Design/Builder, or upon reasonable request of Owner, Design/Builder will attend

meetings to update Owner on the progress of the Project and to answer any questions of Owner.

8.25 One-Year Walk Through. One year from the date of Substantial Completion, on a date mutually agreed upon by Owner and Design/Builder, Design/Builder shall accompany Owner on a walk-through of the Project and shall be responsible to correct any items found deficient during such inspection.

ARTICLE 9

FIXED CONTRACT PRICE

9.1 Fixed Contract Price. Design/Builder agrees that the fixed price Owner shall pay to the Design/Builder for the completion of all Design Services and all Work described in the Contract Documents to complete the Project in accordance with the Detailed Design and the Design Documents, and the purposes of the Project, as identified by Owner, shall be the sum of two million eight hundred fifty thousand dollars (\$2,850,000) (the "Fixed Contract Price.") The Fixed Contract Price shall not be modified unless all conditions precedent to a change in the Fixed Contract Price have been satisfied, including the execution of a Change Order in accordance with the requirements of this Agreement.

9.2 Adjustments to Fixed Contract Price. In entering into this Agreement, Design/Builder understands and agrees that the Fixed Contract Price can only be increased in limited circumstances, and in accordance with the provisions set forth in this Agreement, including but not limited to the Change Order procedures set forth in Article 15 and the Claims procedures set forth in Article 16. Subject to the provisions of this Agreement, the Fixed Contract Price can be increased if:

(a) Owner directs or agrees to a change in the Project that increases the cost of the Design Services or the Work;

(b) The Design/Builder encounters subsurface or concealed conditions at the Project site, which meet the requirements of Section 16.2 and that cause the Design/Builder to incur increased costs in the Design Services or the Work;

(c) The Design/Builder encounters Hazardous Materials, complies with the provisions set forth therein, and incurs increased costs to the Design Services or the Work;

(d) Design/Builder incurs unavoidable increased costs in performing Design Services or the Work as a direct result of changes, after the execution of this Agreement, in directly applicable laws, codes and ordinances, such as changes in life-safety building codes or zoning laws, legislatively enacted new categories of taxes (such as a gross receipts tax), and changes in environmental regulations which relate to the Project; or

(e) Emergencies that meet the requirements of Section 15.9, and that cause Design/Builder to incur increased costs in the Design Services or the Work.

Except for the foregoing, Design/Builder agrees that the Design/Builder assumes

all other risks which may cause increased costs to the Design Services or the Work, and agrees that the Fixed Contract Price will not be increased as a result of any such risks.

9.3 Taxes. Unless otherwise provided in this Agreement, the Fixed Contract Price shall include all taxes that are or may be legally assessed or exacted during the construction of the Project.

ARTICLE 10

PAYMENT OF THE FIXED CONTRACT PRICE

10.1 Payment Procedure. Owner shall pay the Fixed Contract Price, as it may be adjusted by the operation of this Agreement, to Design/Builder in accordance with the procedures set forth in this Article 10.

10.2 Schedule of Values. Design/Builder shall prepare and present to the Owner the Design/Builder's schedule of values apportioning the Fixed Contract Price among the different elements of the Project for purposes of periodic and final payment. Pursuant to this Section, Design/Builder shall, within thirty (15) calendar days of the Notice to Proceed, submit to Owner a detailed schedule of values for Design Services and a preliminary schedule of values for construction services to be rendered in performance of the Work and shall within thirty (30) days of the authorized commencement of some construction activities in performance of the Work submit to Owner a detailed schedule of values for all construction activities related to the performance of the Work. The Design/Builder's schedules of values shall be presented in a format, with such reasonable detail as the Owner requests. Design/Builder shall not imbalance its schedule of values nor artificially inflate any element thereof. The violation of this provision by the Design/Builder shall constitute a material breach of this Agreement. The Design/Builder's schedule of values will be utilized for the Design/Builder's payment requests but shall only be so utilized after it has been acknowledged in writing by Owner. The schedule of values submitted by Design/Builder pursuant to this Section may from time to time be amended by Design/Builder, subject to the approval of Owner.

10.3 Submission of Payment Requests. On or before the 25th day of each month after commencement of performance, but no more frequently than once monthly, the Design/Builder may submit to the Owner's Representative a payment request for the period ending the last day of the month. Said payment request shall be the DPW Form Pay Request and shall include whatever supporting information as may be required by Owner. Therein, the Design/Builder may request payment for ninety-five percent (95%) of that part of the Fixed Contract Price allocated on the schedule of values to Contract requirements to the date of the Payment Request for properly provided labor and materials, and for equipment properly incorporated in the Project, and materials or equipment necessary for the Project and properly stored at the Project site (or elsewhere if off-site storage is approved in writing by the Owner, such approval not to be unreasonably withheld), less the total amount of previous payments received from the Owner. Any payment on account of stored materials or equipment will be subject to the Design/Builder providing written proof that the Owner has title to such materials or equipment and that they are fully insured against loss or damage. The Design/Builder may receive 100% of that part of the Fixed Contract Price allocated to certain development and related costs as agreed to in writing by the parties hereto.

10.4 Not Used

10.5 Warranty of Completed Work; Review of Payment Requests.

(a) Each Payment Request shall be signed by the Design/Builder and shall constitute the Design/Builder's representation that the quantity of Work has reached the level for which payment is requested, that the Work has been properly installed or performed in strict compliance with the Contract, and that the Design/Builder knows of no reason why payment should not be made as requested.

(b) Thereafter, the Owner's Representative shall review the Payment Request and may also review the Work at the Project site or elsewhere to determine whether the quantity and quality of the Work is as represented in the Payment Request and is as required by this Contract. The Owner's Representative shall approve in writing the amount, which is properly owing to the Contractor.

10.6 Conditions Precedent To Payment. In addition to all other conditions precedent contained herein, it shall be a condition precedent to payment of any pay request that Design/Builder, if requested by Owner, have submitted updated schedules for the performance of its Work and Design Services as required by this Agreement and that Design/Builder shall have furnished to Owner properly executed waivers of rights to claim against the Owner, in a form acceptable to Owner, from all Subcontractors, material men, Suppliers or others lien or other claim rights, wherein they shall acknowledge receipt of all sums due pursuant to all prior pay requests and waive and relinquish any claim rights relating thereto. The submission by the Design/Builder of a payment request also constitutes an affirmative representation and warranty that all work for which the Owner has previously paid is free and clear of any lien, claim, or other encumbrance of any person whatsoever.

10.7 Time for Payment. Subject to Owner's right of review and objection, the Owner shall make payment to the Design/Builder within twenty-one (21) days following receipt of the Design/Builder's submittal of a proper payment request. In no event shall payment made to Design/Builder, for approved amounts, exceed 30 days following receipt of the Design Builder's submittal of pay request.

10.8 Amount of Progress Payments. Owner shall pay the amount of each pay request properly due under this Agreement less such amounts, if any, owing by Design/Builder to Owner or which Owner shall have the right to withhold as authorized by this Agreement.

10.9 Title Passes Upon Payment. Design/Builder warrants and represents that upon payment of any pay request submitted by Design/Builder, title to all Work covered by the pay request shall immediately pass to Owner.

10.10 Design/Builder's Use Of Progress Payments. Upon receipt of any payment from Owner, Design/Builder shall promptly pay all Subcontractors, material men, laborers, and Suppliers such amounts as they are entitled for the Work covered by such payment.

10.11 Use Of Joint Checks. If Owner becomes aware or is informed that Design/Builder has not paid a Subcontractor, material men, laborer, or Supplier as provided herein, Owner shall have the right, but not the duty, to issue checks and payment then or thereafter otherwise due to Design/Builder naming Design/Builder and

any such Subcontractor, material men, laborer, or Supplier as joint payees. Before issuing any joint checks hereunder, Owner shall provide five (5) days prior written notice to Design/Builder. Such joint check procedure, if employed by Owner, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit Owner to repeat the procedure in the future nor to create any contractual or other relationship of any kind between Owner and such person or entity. Owner shall provide written notice to Design/Builder of unpaid subcontractors or suppliers, and Design/Builder shall have 30 days to cure prior to owner taking action.

10.12 Payment Not A Waiver or Acceptance. No payment to Design/Builder shall be interpreted or construed to constitute acceptance of any Work not in strict compliance with the Contract, and Design/Builder expressly accepts the risk that defective Work may not be detected (1) during any inspection by Owner, (2) prior to making of any payment to Design/Builder, or (3) before Owner's occupancy of the Project.

10.13 Withholding Of Payment. Notwithstanding any withholding of payments hereunder, Owner shall timely pay to Design/Builder all amounts due Design/Builder under this Article which are not in dispute under this Section. Owner shall have the right to refuse to make payment (and, if necessary, may demand the return of a portion or all of the amount previously paid to Design/Builder) in an amount then believed by Owner to be adequate to cover the penalties, damages, and potential losses resulting or likely to result from:

- (a) The quality of a portion, or all, of Design/Builder's Work not being in strict accordance with the requirements of this Contract;
- (b) The quantity of Design/Builder's Work not being as represented in Design/Builder's pay request, or otherwise;
- (c) Design/Builder's rate of progress being such that, in Owner's opinion, Substantial Completion, Final Completion, or both, may be inexcusably delayed;
- (d) Design/Builder's failure to use Contract funds, previously paid Design/Builder by Owner, to properly pay Design/Builder's Project-related obligations including, but not limited to, Subcontractors, laborers and material and equipment Suppliers;
- (e) Evidence that the balance of the Work cannot be completed in accordance with the Agreement for the unpaid balance of the Fixed Contract Price;
- (f) Claims made, or likely to be made, against Owner or its property because of acts or omissions of Design/Builder;
- (g) Loss caused by Design/Builder; or
- (h) Design/Builder's failure or refusal to perform any of its obligations to Owner.

In the event that Owner makes written demand upon Design/Builder for amounts

previously paid by Owner as contemplated in this Section 10.13, Design/Builder shall promptly comply with such demands.

10.14 Unexcused Failure To Pay. If Owner, without justifiable cause or basis hereunder, fails to pay Design/Builder any amounts due and payable to Design/Builder within thirty (30) days after the date established herein for payment of such amounts, then Design/Builder may suspend its Design Services or, as applicable, the Work until payment is made, provided that Design/Builder first gives five (5) days' written notice to Owner of its intent. Any payment due hereunder which is not made within thirty (30) days after the date due shall bear interest at statutory interest rate set forth in I.C. 28-22-104.

ARTICLE 11

SUBSTANTIAL AND FINAL COMPLETION

11.1 Substantial Completion. With respect to the Project, "Substantial Completion" means that stage in the progression of the Work, as approved by Owner in writing, when the Project is sufficiently complete in accordance with the Agreement that Owner can enjoy beneficial use or occupancy of the Project and can utilize it for all of its intended purposes. Owner reserves the right to occupy and use any part, portion, or system of the Project when such part, portion, or system is substantially completed. If Owner elects to occupy a part, portion, or system of the Project, that part, phase or system, shall be deemed substantially complete; provided that Owner shall first notify Design/Builder of Owner's intent to occupy such part, portion, or system, and the Owner's Representative shall thereupon promptly perform an inspection of the subject part, portion or system to determine that the work is in fact substantially complete, and shall prepare a punch list of remaining items to be completed to achieve final completion of the subject part, portion or system. The fact that some part, portion or system of the Project is deemed substantially complete under this Section shall not result in the entire Project being deemed substantially complete, nor will such partial use or occupancy be determinative of Substantial Completion as defined in Section 11.2.

11.2 Determination Of Substantial Completion. When Design/Builder considers Substantial Completion has been achieved for the Project, the Design/Builder shall notify the Owner in writing and shall furnish to the Owner a listing of those matters yet to be finished. The Owner or its designee will thereupon conduct an inspection to confirm that the work is in fact substantially complete. Upon its confirmation that the Design/Builder's work is substantially complete, the Owner will so notify the Design/Builder in writing and will therein set forth the date of Substantial Completion. If the Owner, through its inspection, fails to find that the Design/Builder's work is substantially complete, the Owner shall notify the Design/Builder of such findings, indicating items that cause the Work to be incomplete or unsatisfactory for acceptance. By furnishing a list of incomplete or unsatisfactory items, the Owner does not warrant that the list is a total and complete list of all items necessary to achieve Substantial Completion. Upon completion or correction by the Design-Builder of all items necessary to achieve Substantial Completion, Owner shall repeat all, or any portion, of its Substantial Completion inspection as often as necessary until Substantial Completion is achieved. If Owner is required to perform more than three (3) Substantial Completion inspections, the Design/Builder shall bear the cost of each additional inspection, which cost may be deducted by the Owner from any payment then or thereafter due to the Design/Builder. Owner shall notify Design/Builder, in writing, prior to commencing any inspections for which it may deduct payment to the Design/Builder therefore.

Guarantees and equipment warranties required by the Contract shall commence on the date of Substantial Completion.

11.3 Payment Upon Substantial Completion. Upon Substantial Completion of the Work, the Owner shall pay the Design/Builder an amount sufficient to increase total payments to the Design/Builder to ninety-five percent (95%) of the Fixed Contract Price, as adjusted by the operation of this Agreement less any amounts attributable to liquidated damages, closeout documents, together with the reasonable costs as determined by the Owner for completing all incomplete work, correcting and bringing into conformance all defective and nonconforming work, and handling any outstanding or threatened claims, which result from Design/Builder's acts or omissions.

11.4 Final Completion Defined. With respect to the Project, "Final Completion" means the completion of all Design Services and all Work required by, and in strict compliance with, the Agreement, as approved by Owner in writing, including the satisfactory completion or resolution of all deficiencies (punch list items) and Design/Builder's provision to Owner of all documents and things required by the Agreement. "Final Completion" does not include services under maintenance service agreements and other services intended to continue beyond the Scheduled Completion Date.

11.5 Determination Of Final Completion. When Design/Builder considers the Project finally complete and the Design/Builder is ready for a final inspection, it shall notify the Owner and Owner's Representative in writing. Thereupon, the Owner's Representative will perform a final inspection of the Project.

11.6 Final Payment. If the Owner's Representative confirms that the entire Project is complete in full accordance with the Contract and that the Design/Builder has performed all of its obligations to the Owner under the Contract, the Owner's Representative will furnish a final approval for payment to the Owner certifying to the Owner that the Project is complete and the Design/Builder is entitled to the remainder of the unpaid Fixed Contract Price as adjusted by operation of this Agreement, less any amounts attributable to liquidated damages, together with the reasonable costs as determined by the Owner for completing all incomplete work, correcting and bringing into conformance all defective and nonconforming work, and handling any outstanding or threatened claims, which result from Design/Builder's acts or omissions. If the Owner's Representative is unable to issue its final approval for payment and is required to repeat its final inspection more than three (3) times, the Design/Builder shall bear the cost of each additional inspection, which cost may be deducted by the Owner from the Design/Builder's final payment.

11.7 Conditions Precedent To Final Payment. Prior to being entitled to receive final payment, and as a condition precedent thereto, Design/Builder shall furnish Owner, in the form and manner required by Owner, the following:

(a) An affidavit that all of Design/Builder's obligations to Subcontractors, laborers, equipment or material Suppliers, or other third parties in connection with the Project, have been paid or otherwise satisfied;

(b) If required by Owner, separate releases or waivers from each Subcontractor, lower tier subcontractor, laborer, Supplier or other person or entity with connection to the Project, or proof of payment such as receipts; (c) Consent of surety to final payment;

(d) Complete as-built drawings and the record set of Contract Documents;

(e) All product warranties, operating manuals, instruction manuals and other record documents, drawings and things customarily required of a Contractor, or expressly required herein, as a part of or prior to Project closeout; and

(f) Verification that Design/Builder has paid all taxes as required by Idaho Code, Title 63, Chapter 15.

11.8 Acceptance Of Final Payment A Waiver. Acceptance by Design/Builder of final payment shall constitute a waiver and release of all claims against Owner by Design/Builder except for those claims previously made in writing against Owner by Design/Builder, pending at the time of final payment and specifically identified on Design/Builder's pay request for final payment as unsettled at the time it submits its pay request.

11.9 Reduction of Retainage for Partial Occupancy: For any partial occupancy or use, the owner shall reduce retainage proportionally to the Design/Builder at the time of partial occupancy or use thereof by the Owner. Such retainage payments shall be adjusted for work that is incomplete or not in accordance with the requirements of contract documents by withholding no more than 150% of the reasonable cost of completing or correcting such work.

ARTICLE 12

OWNER'S DUTIES, OBLIGATIONS, AND RESPONSIBILITIES

12.1 Provide Project Information. Owner shall provide Design/Builder with information regarding Owner's requirements for the Project including any desired or required design or construction schedule. By furnishing such information, Owner does not represent, warrant, or guarantee its accuracy or completeness either in whole or in part, and shall have no liability therefore.

12.2 Review Of Documents. Owner shall review any documents submitted by Design/Builder requiring Owner's decision, and shall render any required decisions pertaining thereto in a timely fashion.

12.3 Provide Notice Of Defects. In the event Owner knows of any material fault or defect in the Work, nonconformance with the Agreement, or of any errors, omissions or inconsistencies in the Design Documents, then Owner shall give prompt notice thereof in writing to Design/Builder.

12.4 Access To The Site And The Work; Providing Information. Owner shall provide Design/Builder access to the Project site and to the Work, and shall provide Design/Builder with such information, existing and reasonably available, necessary to Design/Builder's performance of the Contract as Design/Builder may request.

12.5 Cooperation To Secure Permits, Licenses, Approvals, and Authorizations.

Owner shall cooperate with Design/Builder in securing any necessary licenses, permits, approvals or other necessary authorizations for the design, construction and certification of the Project.

12.6 Timely Performance. Owner shall perform the duties set forth in this Article 12 in a reasonably expeditious fashion and in accordance with the project schedule so as to permit the orderly and timely progress of Design/Builder's Design Services and of the Work.

12.7 Owner's Reviews, Inspections, Approvals, And Payments Not A Waiver. Owner's review, inspection, or approval of any Work, Design Documents, submittals, or pay requests by Design/Builder shall be solely for the purpose of determining whether such Work and such documents are generally consistent with Owner's construction program and requirements. No review, inspection, or approval by Owner of such Work or documents shall relieve Design/Builder of its responsibility for the performance of its obligations under the Agreement or the accuracy, adequacy, fitness, suitability, or coordination of its Design Services or the Work. Approval by any governmental or other regulatory agency or other governing body of any Work, Design Document, or Contract Documents shall not relieve Design/Builder of responsibility for the strict performance of its obligations under the Agreement. Payment by Owner pursuant to the Agreement shall not constitute a waiver of any of Owner's rights under the Agreement or at law, and Design/Builder expressly accepts the risk that defects in its performance, if any, may not be discovered until after payment, including final payment, is made by Owner.

12.8 Delay Or Forbearance Not Waiver. Owner's agreement not to exercise, or its delay or failure to exercise, any right under the Agreement or to require strict compliance with any obligation of Design/Builder under the Agreement shall not be a waiver of the right to exercise such right or to insist on such compliance at any other time or on any other occasion.

12.9 Subsurface and Other Information Provided by Owner. Owner shall furnish to Design/Builder, prior to the execution of this Agreement, any and all written and tangible material knowingly in its possession concerning conditions below ground at the site of the Project, including without limitation a soils report, survey and site demolition bidding documents. By furnishing such material, Owner does not represent, warrant, or guarantee its accuracy or completeness either in whole or in part, and shall have no liability therefore.

12.10 Approvals and Easements. Owner shall obtain all easements required for construction, and shall pay for necessary assessments and charges required for use and occupancy of the Work. Design/Builder shall render such assistance as Owner may request in obtaining such easements, certificates, and the like, including for example, assistance with drawings or legal descriptions and attendance at hearings if necessary.

12.11 Testing and Inspection. Owner shall be responsible for testing and inspections required by sound professional practice and by governmental authorities having jurisdiction over the Project. Contractor will be responsible only for the cost of failed testing.

12.12 Right to Stop Work. In the event Design/Builder fails or refuses to perform the Work in strict accordance with the Agreement, or is otherwise in breach of this Contract, Owner may, at its option, instruct Design/Builder to cease and desist from performing further Work, or any part thereof. Upon receipt of such instruction from

Owner in writing specifying the reasons therefore, Design/Builder shall immediately cease and desist as instructed by Owner and shall not proceed further until the cause for Owner's instructions has been corrected, no longer exists, or Owner instructs that the Work may resume.

12.13 Owner's Right to Perform Work. In the event Owner issues such instructions to stop Work, and in the further event that Design/Builder fails and refuses within seven (7) days of receipt of same to provide adequate assurance to Owner that the cause of such instructions will be eliminated or corrected, then Owner shall have the right to carry out the Work with its own forces, or with the forces of other contractors, and Design/Builder shall be fully responsible for the reasonable costs incurred in performing such Work. The rights set forth in Section 12.11 and this Section 12.12 are in addition to, and without prejudice to, any other rights or remedies Owner may have against Design/Builder, including the rights to terminate or withhold payment as provided herein.

12.14 Owner Personnel. Owner shall provide to Design/Builder a listing of key project personnel of Owner working on the Project.

ARTICLE 13

PROJECT DOCUMENTATION

13.1 Maintenance of Project-Related Records. Design/Builder shall maintain and protect all records relating in any manner whatsoever to the Project (the "Project Records") for no less than four (4) years after Final Completion of the Project, and for any longer period of time as may be required by law or good management practice.

13.2 Availability of Project-Related Records to Owner. All Project Records, which are in the possession of Design/Builder or Design/Builder's Subcontractors, shall be made available to Owner for inspection and copying upon Owner's request at any reasonable time. Additionally, such records shall be made available upon request by Owner to any state, federal or other regulatory authorities and any such authority may review, inspect and copy such records. The Project Records include, without limitation, all drawings, plans, specifications, submittals, correspondence, logs, minutes, memoranda, photographs, tape or videotape recordings, or other writings or things which document the Project, its design, or its construction. Said records include those documents reflecting the cost of design and construction to Design/Builder.

ARTICLE 14

PERSONNEL, SUBCONTRACTORS AND SUPPLIERS

14.1 Subcontractor Defined. "Subcontractor" means an entity or person that has a direct contract with Design/Builder to perform a portion of the Work or the Design Services. For purposes of the Agreement, Subcontractors shall also include those furnishing equipment and materials fabricated especially for the Project.

14.2 Supplier Defined. "Supplier" means an entity or person providing only equipment or materials for the performance of the Work.

14.3 Naming of Subcontractors. At the time of the execution of this Agreement, Design/Builder shall provide to Owner in writing a list of those subcontractors who Design/Builder intends to use in the performance of those portions

of the Work under the Contract which involve plumbing, heating, air conditioning or electrical work. Prior to any construction, and on an ongoing basis in order to keep the information current, complete and accurate, Design/Builder must provide to Owner forms, as required by the applicable taxing authority(ies), showing dates, names, addresses, contracting parties, including all Subcontractors and Suppliers and all other relevant information required.

14.4 Terms of Subcontracts and Purchase Orders. All subcontracts and purchase orders with Subcontractors shall afford Design/Builder rights against the Subcontractor which correspond to those rights afforded to Owner against Design/Builder herein, including those rights of Contract suspension, termination, and stop Work orders as set forth herein. It is expressly agreed that no relationship of agency, employment, contract, obligation or otherwise shall be created between Owner and any Subcontractor of Design/Builder and a provision to this effect shall be inserted into all agreements between Design/Builder and its Subcontractors.

14.5 Design/Builder Responsible for Acts of its Subcontractors. Should Design/Builder subcontract all or any part of the Work, such subcontracting of the Work shall not relieve Design/Builder from any liability or obligation under the Contract or under any applicable policy, law or regulation, and Design/Builder shall be responsible for all and any acts, defaults, omissions or negligence of its Subcontractors, Suppliers, and consultants, as related to or affecting the performance of Design Services and the Work.

14.6 Personnel. Design/Builder shall employ and assign only qualified and competent personnel to perform any service or task concerning the Project. Design/Builder shall designate one such person as the Project Manager. Absent written instruction from Design/Builder to the contrary, the Project Manager shall be deemed to be Design/Builder's authorized representative and shall be authorized to receive and accept any and all communications from Owner. Key design and supervisory personnel assigned by Design/Builder to this Project are as follows:

	Name	Function
1)	_____	_____
2)	_____	_____
3)	_____	_____

Design/Builder shall submit the names of other key supervisory personnel, and evidence of their competence, as such key supervisory personnel are appointed by Design/Builder. Evidence of the above-named personnel's competence, such as a resume, shall be provided to Owner prior to said personnel beginning performance of the function indicated. So long as the individuals named above remain actively employed or retained by Design/Builder, or any related entity or affiliate thereof, they shall perform the functions indicated next to their names unless Owner agrees to the contrary in writing or unless Owner requests removal of any such individual from the Project. Owner requests to remove any of the Design/Builder's personnel shall be in writing and shall contain substantive reasons therefore. In the event Owner requests the removal of any of the individuals named above, Design/Builder shall immediately comply and shall immediately replace such individual with a qualified substitute to whom Owner makes no objection, at no cost or penalty to Owner for delays or inefficiencies the change may cause. In the event one or more individuals not listed above subsequently assumes one or more of those functions listed above, Design/Builder shall be bound by the provisions of this Section 14.6 as though such individuals had been listed above.

14.7 Removal of Subcontractors. If, at any time during the course of the Project, Owner reasonably determines that the performance of any Subcontractor working on the Project is unsatisfactory, Owner's Representative shall notify Design/Builder of the same, and shall set forth the instances of unsatisfactory performance. Promptly on receipt of such notice, Design/Builder shall undertake to cure such unsatisfactory performance, or shall remove such Subcontractor from the Project and promptly replace such Subcontractor. Any cure of unsatisfactory performance or any replacement of a Subcontractor pursuant to this Section shall be at no cost or penalty to Owner for any increased costs, delays or inefficiencies caused by such unsatisfactory performance, its cure, or by the replacement of a Subcontractor hereunder.

ARTICLE 15

CHANGES IN THE PROJECT

15.1 Owner's Right to Order Changes. The Owner, without invalidating the Agreement, may unilaterally order Changes in the Project within the general scope of the Contract, consisting of additions, deletions or other revisions. All changes in the Project, which adjust the Fixed Contract Price or the Contract Time, shall be authorized only by Change Order and Design/Builder specifically recognizes and acknowledges that methods available for adjustments to the Fixed Contract Price set forth in Section 15.3.

15.2 Change Order Defined. "Change Order" means and includes a written order to the Design/Builder signed by the Owner or Owner's Representative and the Design/Builder and issued after the execution of this Agreement, authorizing a change in the Project and/or an adjustment in the Fixed Contract Price or the Contract Time.

15.3 Adjustment to Fixed Contract Price. The increase or decrease in the Fixed Contract Price resulting from a Change Order shall be determined in the following order of precedence:

(a) First, by mutual agreement between the Owner and the Design/Builder as evidenced by (1) the change in the Fixed Contract Price being set forth in a Change Order, (2) such change in the Fixed Contract Price together with any conditions or requirements relating thereto, being signed by both parties, and (3) the Design/Builder's execution of the Change Order;

(b) Second, if no mutual agreement occurs between the Owner and Design/Builder, under Section 15.3(a), the change in the Fixed Contract Price, if any, shall be derived by determining the reasonable costs incurred or savings achieved, resulting from revisions in the Work, utilizing the 2005 Means Cost Guide, as adjusted for Boise, Idaho, provided Design Builder shall properly itemize the costs or savings and shall submit sufficient substantiating data to permit evaluation and including a reasonable design fee to perform needed design work to implement the revisions in the Work;

(c) Third, if the parties do not agree on the adjustment to the Fixed Contract Price utilizing the methodology set forth in Section 15.3(a) or 15.3(b), then the amount of the change in the Fixed Contract Price shall be calculated by pricing the labor at the actual wage or hourly rates paid for doing the additional Design Services and the Work; if any, plus the actual cost of materials and equipment, if any; provided, however, that such "actual costs" must be

reasonable. In addition Owner shall allow a total mark-up of no greater than fifteen percent (15%) for all overhead, all indirect costs, and profit to be added to the actual costs of labor, if any, and materials and equipment, if any, pro-rated between the Design/Builder and Subcontractors, if any, as the Design/Builder determines, and in no event shall include any consequential damages of the Design/Builder; or

(d) Any such costs or savings shall be documented in the format and with such content and detail as is acceptable to the Owner.

15.4 Extension of Contract Time. Any extension of the Contract Time requested by Design/Builder for performance of any change in the Design Services or the Work ordered by Owner may be granted by mutual agreement and then set forth in the Change Order. Otherwise, extensions of the Contract Time must be requested by Design/Builder pursuant to the terms and conditions of Article 16 of this Agreement. The failure of Design/Builder to provide notice in writing to Owner in accordance with Article 16 of this Agreement of any request for extension of the Contract Time shall constitute a waiver by Design/Builder of any entitlement to an extension of the Contract Time.

15.5 Effect of Executed Change Order. The execution of a Change Order by Design/Builder shall constitute conclusive evidence of Design/Builder's and Owner's agreement to the ordered changes in the Project, the Agreement as thus amended, the Fixed Contract Price as thus amended and the Contract Time as thus amended. Design/Builder, by executing the Change Order, waives and releases any claim against Owner for additional time or compensation for matters relating to, arising out of, or resulting from the Design Services or the Work included within or directly affected by the executed Change Order.

15.6 Consent of Surety. Design/Builder shall notify and obtain the consent and approval of Design/Builder's surety with reference to all Change Orders if such notice, consent or approval is required by Owner, Design/Builder's surety or by law. Design/Builder's execution of the Change Order shall constitute Design/Builder's warranty to Owner that the surety has been notified of, and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

15.7 Fiduciary Relationship. Design/Builder recognizes and accepts a fiduciary relationship of trust and confidence established between Design/Builder and Owner by this Agreement and agrees that it shall at all times in good faith use its best efforts to advance Owner's interests and agrees to perform the Design Services and the Work in the best professional manner.

15.8 Minor Changes in the Project. The Owner will have authority to order minor changes in the Work not involving an adjustment in the Fixed Contract Price or an extension of the Contract Time and not inconsistent with the intent of the Detailed Design and Design Documents. Such Changes may be effected by written order and shall be binding on the Owner and the Design/Builder.

15.9 Emergencies. In any emergency affecting the safety of persons or property, the Design/Builder shall act, at Design/Builder's discretion, to prevent threatened damage, injury or loss. Any increase in the Fixed Contract Price or extension of the Contract Time claimed by the Contractor on account of emergency work shall be determined as provided in this Article.

ARTICLE 16

CLAIMS FOR ADDITIONAL COST OR TIME

16.1 Limitation on and Operation of Design/Builder Claims.

(a) Design/Builder and Owner understand and agree that the Fixed Contract Price cannot increase, unless Owner specifically orders a Change to the Project pursuant to Article 15 of this Agreement, or unless Design/Builder encounters a condition or situation within the risk assumed by the Owner under Section 9.2 of this Agreement. In the event Design/Builder believes it is entitled to make claims to increase the Fixed Contract Price or to extend the Contract Time, such claims must be made in strict compliance with this Article 16.

(b) The procedures of this Article relating to claims of the Design/Builder are understood to be a construction management tool of Owner. The use of the term "claim" in this Article does not constitute an error, omission, or inappropriate conduct by either party.

16.2 Claims for Extraordinary Unforeseeable Subsurface or Concealed Conditions.

(a) Under the provisions of this Agreement, including the representations and warranties of Design/Builder contained in Sections 2.1(e) and (f), Design/Builder understands and agrees that the risk of increased costs in the Design Services and the Work caused by the conditions of the Project site, whether surface, subsurface, or other conditions which affect the site or the performance of Design Services or the Work have been transferred to and assumed by Design/Builder under this Agreement, and that such increased costs will be absorbed by Design/Builder, and that there will be no increase in the Fixed Contract Price as a result of Design/Builder encountering such conditions and increased costs. Notwithstanding this general transference of the risk of such conditions, the parties agree that there are limited circumstances under which Design/Builder may be entitled to an increase in the Fixed Contract Price due to conditions that are unknown, concealed, and unforeseeable conditions, as set forth in this Article.

(b) If subsurface or otherwise concealed conditions are encountered at the Project site which are;

- (1) Unknown to Design/Builder; and
- (2) Not reasonably foreseeable or anticipated by Design/Builder in view of Design/Builder's representations and warranties contained in Article 2.
- (3) Which are either:
 - (i) Materially different from those indicated in any respective soils reports provided; or
 - (ii) Materially different from those ordinarily found to exist and generally recognized and inherent in

construction activities of the character provided for in the Contract, then Design/Builder may seek an adjustment to the Fixed Contract Price and/or an extension of the Contract Time, in accordance with the provisions of this Article 16, and provided that Design/Builder shall give notice to the Owner in writing before the conditions are disturbed and in no event later than seven (7) calendar days after Design/Builder discovers or observes the conditions.

- (iii) Upon receipt of said notice, Owner shall investigate such conditions and make a determination as to whether the conditions meet the requirements set forth in this Section 16.2 above. Owner shall notify Design/Builder in writing within fourteen (14) days of its determination. If Owner determines that the conditions do not meet the requirements of Section 16.2, Owner shall specify the reasons for that determination.

(c) Examples of conditions that would not be reasonably foreseeable and thus may qualify for an adjustment in the Fixed Contract Price, and/or an extension of the Contract Time include: buried vehicle bodies, which reasonably require Design/Builder to utilize equipment to remove said vehicles which was not contemplated by Design/Builder as necessary to perform the Work; burial or archeological finds; dump or garbage pits that contain more than fifty (50) cubic yards of refuse to be hauled off of the Project site; drain fields; storage tanks, voids or tunnels; or rock formations which require "jack hammering" or "blasting" to excavate or remove; and groundwater higher than three (3) feet below existing ground level, which cannot be diverted or removed through the use of four-inch (4") pumps on the Project site.

(d) Examples of conditions that are reasonably foreseeable under the Contract, and do not qualify for an adjustment in either the Fixed Contract Price and/or an extension of the Contract Time include: materials expected to be found in river bottom soil, including but not limited to, cobblestones, clay, sand, silt and gravel (and combinations thereof), boulders up to one ton in size, car bodies or vehicles, which do not require Design/Builder to utilize equipment for removal which was not contemplated by Design/Builder for use in performing the Work, garbage pits containing less than fifty (50) cubic yards of material.

16.3 Conditions for Design/Builder Claims. Claims by the Design/Builder against the Owner are subject to the following terms and conditions:

(a) All Design/Builder claims against the Owner shall be initiated by a written claim submitted to the Owner's Representative. Such claim must be received by the Owner's Representative no later than seven (7) calendar days after the event or the first appearance of the circumstances causing the claim, and must set forth in detail all known facts and circumstances supporting the claim and such claim must designate whether the claim affects the Design Services and Work;

(b) The Design/Builder and the Owner shall continue their performance hereunder regardless of the existence of any claims submitted by the Design/Builder;

(c) In the event the Design/Builder seeks to make a claim for an increase in the Fixed Contract Price, as a condition precedent to any liability of the Owner therefore, the Design/Builder shall strictly comply with the requirements of Subsection 16.3(a) above, and such claim shall be made by the Design/Builder before proceeding to execute any additional or changed work. Failure of the condition precedent to occur shall constitute a waiver by the Design/Builder of any claim for additional compensation;

(d) In connection with any claim by the Design/Builder against the Owner for an increase in the Fixed Contract Price, any liability of the Owner shall be strictly limited to the actual costs incurred by the Design/Builder and a total mark-up of no greater than 15% for all overhead, all indirect costs, and profit of Design/Builder and its Subcontractors, suppliers, consultants and agents, and shall in no event include consequential damages of the Design/Builder. The Owner shall not be liable to the Design/Builder for claims of third parties, including Subcontractors, unless and until liability of the Design/Builder has been established therefore in a court of competent jurisdiction;

(e) In the event the Design/Builder should be delayed in performing any task which at the time of the delay is then critical or which during the delay becomes or may become critical to the extent attributable to any act or omission by the Owner or someone acting in the Owner's behalf, or by Owner-authorized Change Orders, unusually bad weather not reasonably anticipatable, war, terrorism, unavoidable accidents beyond Design/Builder's control, fire, active interference by third parties with Design/Builder's duties on-site, or other acts of God, all relating to the Project site, the date for achieving Substantial Completion, or, as applicable, Final Completion, shall be appropriately adjusted by the Owner upon the written claim of the Design/Builder, in accordance with Subsection 16.3(a), as the Design/Builder's sole remedy. A task is critical within the meaning of this Subsection 16.3(e) if, and only if, said task is on the critical path of the project schedule so that a delay in performing such task will delay the Substantial or Final Completion of the Project. Any claim for an extension of time by the Design/Builder shall strictly comply with the requirements of Subsection 16.3(a) above. If the Design/Builder fails to make such claim as required in this Subsection 16.3(e), any claim for an extension of time shall be waived.

(f) An extension of the Contract Time will be the Design/Builder's sole remedy for any delays of Design/Builder, whether or not delays are caused by Owner, Owner's Representative and whether or not such delays are foreseeable, unless delays are caused by acts of the Owner which constitute active interference with Design/Builder's performance of the Work, and only to the extent such acts continue after the Design/Builder furnishes the Owner with written notice of such interference. In no other event shall the Design/Builder be entitled to any compensation or recovery of any damages in connection with any delay, including, without limitation, consequential damages, lost opportunity costs, impact damages, or other similar remuneration. The Owner's exercise of any of its rights or remedies under the Contract Documents, including, without limitation, ordering changes in the Work, direct suspension, or correction of the Work and, regardless of the extent or frequency of the Owner's exercise of such

remedies, shall not be construed as active interference with the Design/Builder's performance of the Work.

(g) If the Design/Builder submits a schedule or progress report indicating, or otherwise expressing an intention to achieve completion of the work prior to any completion date required by the Contract Documents or expiration of the Contract Time, no liability of the Owner to the Design/Builder for any failure of the Design/Builder to so complete the Work shall be created or implied. However, Owner agrees to reasonably cooperate with requests of Design/Builder to accelerate the Work.

ARTICLE 17

UNCOVERING AND CORRECTING WORK

17.1 Design/Builder Not to Cover Work Contrary to Requirements. If any of the Work is covered, concealed or obscured contrary to the written request of Owner, or contrary to any provision of the Agreement, said Work shall, if required by Owner, be uncovered for inspection and shall be properly replaced at Design/Builder's expense without change in the Contract Time.

17.2 Owner's Right to Order Uncovering of Any Work. If any of the Work is covered, concealed or obscured by Design/Builder in a manner consistent with its obligations under this Agreement, it shall, if required by Owner, be uncovered for inspection. If such Work conforms strictly with the Agreement, the cost of uncovering and proper replacement shall by Change Order be charged to Owner. If such Work does not strictly conform with the Agreement, Design/Builder shall pay the cost of uncovering and proper replacement.

17.3 Duty to Correct Rejected Work. Design/Builder shall immediately proceed to correct Work rejected by Owner as defective or failing to conform to the Agreement. Design/Builder shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections made necessary thereby.

17.4 Duty to Correct Defective Work Discovered After Completion. In addition to its warranty obligations set forth elsewhere herein, Design/Builder shall be specifically obligated to correct any and all defective or nonconforming Work for a period of twelve (12) months following beneficial occupancy or Final Completion, whichever occurs first, upon written direction from Owner. This obligation shall survive final payment by Owner and termination of the Agreement.

17.5 No Period of Limitation Established. Nothing contained in Section 17.4 shall establish any period of limitation with respect to other obligations, which Design/Builder has under the Agreement. Establishment of the one-year time period in Section 17.4 above relates only to the duty to Design/Builder to specifically correct the Work.

17.6 Owner's Option to Accept Defective Work. Owner may, but shall in no event be required to, choose to accept defective or nonconforming Work. In such event, and if the Design/Builder has refused to promptly remove and correct the defective work, the Fixed Contract Price shall be reduced by the reasonable costs of removing and correcting the defective or nonconforming Work. Owner shall be entitled to such

reduction in the Fixed Contract Price regardless of whether Owner has, in fact, removed and corrected such defective Work. If the unpaid balance of the Fixed Contract Price, if any, is insufficient to compensate Owner for the acceptance of defective or nonconforming Work, Design/Builder shall, upon written demand from Owner, pay Owner such additional compensation for accepting defective or nonconforming Work.

ARTICLE 18

SUSPENSION AND TERMINATION

18.1 Suspension of Performance. Owner may for any reason whatsoever suspend performance under the Contract. Owner shall give written notice of at least five (5) days of such suspension to Design/Builder specifying when such suspension is to become effective.

18.2 Ceasing Performance Upon Suspension. From and upon the effective date of any suspension ordered by Owner, Design/Builder shall incur no further expense or obligations in connection with the Agreement, and Design/Builder shall cease its performance. Design/Builder shall also, at Owner's direction, either suspend or assign to Owner any of its open or outstanding subcontracts or purchase orders.

18.3 Claim For Costs of Suspension. In the event Owner directs a suspension of performance under this Article 18, through no fault of Design/Builder, and provided Design/Builder submits a proper claim as provided in this Agreement, Owner shall pay Design/Builder as full compensation for such suspension Design/Builder's reasonable costs, actually incurred and paid, of:

- (a) Demobilization and remobilization, including such costs paid to Subcontractors;
- (b) Preserving and protecting Work in place;
- (c) Storage of material or equipment purchased for the Project, including insurance thereon; and
- (d) Performing in a later, different, or during a longer, time frame than that contemplated by this Contract.

18.4 Resumption of Work After Suspension. If Owner lifts the suspension it shall do so in writing, and Design/Builder shall promptly resume performance of the Agreement unless, prior to receiving the notice to resume, Design/Builder has exercised its right of termination as provided herein.

- (a) Design/Builder reserves the right to change its personnel for the performance of the Work, to the extent such personnel are not reasonably available upon the resumption of the Work; provided that Owner may direct by Change Order that such personnel be retained on the Project. If Owner directs such retention, Owner shall pay Design/Builder the reasonable costs incurred by Design/Builder to keep and/or make such personnel available upon the resumption of the Work, including necessary stand-by costs.

18.5 Termination By Design/Builder For Prolonged Suspension Of Performance. If performance of the Agreement is stopped for a period of ninety (90)

consecutive days at the direction of Owner pursuant to Section 18.1 or by an order of any court or other public authority, or as a result of any act of government, and provided that such suspension by Owner or public authority is through no fault of Design/Builder or any person or entity working directly or indirectly for Design/Builder, Design/Builder may, upon ten (10) days' written notice to Owner, terminate performance under the Agreement and recover from Owner on the terms and conditions and in the amounts provided in Section 18.7 below.

18.6 Termination By Design/Builder For Cause. If Owner shall persistently or repeatedly fail to perform any material obligation to Design/Builder for a period of thirty (30) days after receiving written notice from Design/Builder of its intent to terminate hereunder, Design/Builder may terminate performance under the Agreement by written notice to Owner. In such event, Design/Builder shall be entitled to recover from Owner on the terms and conditions and in the amounts as though Owner had terminated Design/Builder's performance under the Agreement for convenience pursuant to Section 18.7 below.

18.7 Termination By Owner For Convenience. Owner may, for any reason whatsoever, or without reason, terminate performance under the Agreement by Design/Builder for convenience. Owner shall give at least thirty (30) days prior written notice of such termination to Design/Builder specifying when termination becomes effective. Design/Builder shall incur no further obligations in connection with the Agreement and Design/Builder shall stop Design Services and the Work when such termination becomes effective. Design/Builder shall also, at Owner's direction, either terminate or assign to Owner outstanding purchase orders and subcontracts. Design/Builder shall settle the liabilities and claims arising out of any terminated subcontracts. Owner may direct Design/Builder to assign Design/Builder's rights, title and interest under terminated orders or subcontracts to Owner or its designee. Design/Builder shall transfer title and deliver to Owner such completed or partially completed Design Documents, Work and materials, equipment, parts, fixtures, information and appropriate contract rights as Design/Builder has.

18.8 Submission of Termination Claim and Compensation For Termination for Convenience. When terminated for convenience, Design/Builder shall be compensated as follows:

(a) Design/Builder shall submit a termination claim to Owner specifying the amounts believed to be due because of the termination for convenience together with costs, pricing or other data required by Owner. If Design/Builder fails to file a termination claim within three (3) months from the effective date of termination, Owner shall pay Design/Builder an amount derived in accordance with Subsection (c) below;

(b) Owner and Design/Builder may agree to the compensation, if any, due to Design/Builder hereunder;

(c) Absent agreement to the amount due to Design/Builder, Owner shall pay Design/Builder, as full compensation for termination for convenience, the following amounts:

(1) That portion of the Fixed Contract Price representing the value of the Design Services and the Work, as reflected on the schedule of values, performed by Design/Builder prior to the date of termination,

which is completed and accepted by Owner for which Design/Builder has not been previously paid;

(2) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the Design Services and the Work, and in terminating Design/Builder's performance, plus a fair and reasonable allowance for direct job site overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if Owner can show that Design/Builder would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any; and

(3) Reasonable costs of settling and paying costs and claims arising out of the termination of subcontractors or orders pursuant to Section 18.7 above. These costs shall not include amounts paid in accordance with other provisions hereof.

In no event shall Design/Builder be entitled to recover anticipated profits or other consequential damages from Owner on account of a termination for convenience or an erroneous termination for cause, as described below. The total sum to be paid Design/Builder under this Section shall not exceed the Fixed Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

18.9 Termination By Owner For Cause. If Design/Builder does not perform the Work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise commits a violation of a material provision of the Agreement, then Owner may by written notice to Design/Builder, without prejudice to any other right or remedy against Design/Builder or others, terminate the performance of Design/Builder and take possession of the Project site and of all materials and equipment at the site and may finish the Work by methods it may deem expedient. In such cases, Design/Builder shall not be entitled to receive any further payment until the Work is finished.

18.10 Erroneous Termination For Cause. In the event the employment of Design/Builder is terminated by Owner for cause pursuant to Section 18.9 and it is subsequently determined by a court or other tribunal of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under Section 18.7 and the provisions of Section 18.8 regarding compensation shall apply.

18.11 Payments To Design/Builder After Termination For Cause. Upon a termination by Owner for cause, if the unpaid balance of the Fixed Contract Price exceeds the cost of finishing the Work, including compensation for Owner's additional costs and expenses of every nature whatsoever made necessary thereby, such excess shall be paid to Design/Builder. If such costs exceed the unpaid balance, Design/Builder shall pay the difference to Owner. This obligation for payment shall survive the termination of the Agreement.

ARTICLE 19

OWNERSHIP OF DOCUMENTS

19.1 Documents Owner's Property. The Design Documents and the Contract Documents, including but not limited to, the drawings, specifications and other documents or things prepared by Design/Builder for the Project, shall become and be the sole property of Owner. Any documents furnished by Owner shall remain the property of Owner. Design/Builder may be permitted to retain copies of the Design Documents and Contract Documents and any documents furnished by Owner for its records; provided, however, that in no event shall Design/Builder use, or permit to be used, any portion of all of such documents on other projects without Owner's prior written authorization.

ARTICLE 20

INDEMNIFICATION

20.1 Design/Builder Indemnification of Owner: For Personal Injury Or Damage To Tangible Property. Design/Builder shall indemnify and hold Owner and Owner's Representative harmless from any and all claims, liability, damages, loss, cost and expense of every type whatsoever including, without limitation, attorneys' fees and expenses, in connection with Design/Builder's performance of this Contract, provided that such claims, liability, damage, loss, cost or expense is due to sickness, personal injury, disease or death, or to loss or destruction of tangible property (other than the Work itself), including loss of use resulting there from, to the extent caused by Design/Builder or anyone for whose acts Design/Builder may be liable.

20.2 Design/Builder Indemnification of Owner for Violations of Laws, Environmental Requirements and Licensing Requirements. Design/Builder shall indemnify and hold harmless Owner and its affiliates, officers, directors, and employees from and against all claims, liabilities, damages, losses, costs, expenses (including reasonable attorney's fees and expenses, and fees and expenses of experts) for bodily injury, including death, or damage to or loss of property, or any other type or form of loss occurring or sustained or resulting from:

(a) Any violation by Design/Builder, its Subcontractors, representatives, employees, and agents of any municipal, state or federal laws, rules, or regulations applicable to the performance of its obligations under the Agreement;

(b) Environmental violations or contamination from hazardous substances, hazardous wastes and emissions or other substances or chemicals regulated by any applicable environmental laws or regulations and to the extent caused by any willful misconduct, negligent act or omission, or legal violation by Design/Builder, its Subcontractors, Suppliers, representatives, employees, or agents;

(c) The failure of any of Design/Builder's employees, agents, representatives, Suppliers, or Subcontractors to obtain and maintain the required skills, licenses, certificates and permits mandated by applicable federal, state or local governing authorities with jurisdiction over construction, fabrication, environmental, health and safety matters of the Project.

20.3 Hazardous Materials. In the event Design/Builder discovers hazardous or contaminated materials, including but not limited to asbestos, PCBs, petroleum, hazardous waste, or radioactive materials ("Hazardous Materials"), Design/Builder shall stop all Work in connection with such hazardous condition and in any area affected thereby, and notify Owner of the discovery of said condition. Design/Builder shall strictly comply with all laws, regulations, rules or other promulgations by governing bodies, agencies, authorities or organizations having jurisdiction over Design/Builder's Activities on the Project relating to Hazardous Materials. Design/Builder shall comply with all laws, regulations, rules or other promulgations by governing bodies, agencies, authorities or organizations having jurisdiction over the discovery of hazardous or contaminated material. Design/Builder shall secure the Work site to prevent access by unauthorized personnel. If Design/Builder fails to comply with this Section 20.3 or contaminated, hazardous or suspected contaminated or hazardous material is knowingly transported (either on or off site) by Design/Builder without notice to Owner, Design/Builder shall be solely responsible for all costs and fines as a result of such failure or knowing transportation.

ARTICLE 21

INSURANCE

21.1 Required Coverage and Limits. Design/Builder shall have and maintain the insurance described in Exhibit "Y" attached hereto and incorporated herein by reference during the entire performance of this Contract, and for a period of two (2) years after Final Completion of the Project. Such insurance shall cover the claims and provide the limits of coverage set forth in Exhibit "Y."

21.2 Proof of Insurance. Design/Builder shall provide Owner with certificates of insurance naming Owner as an additional insured (except for professional liability insurance) or certified copies of the policies required by Owner, certifying that all insurance is in force, within ten (10) days after the Agreement becomes effective or on the date construction is commenced, whichever occurs first. Certificates of insurance evidencing the coverage's required by the Agreement shall contain an endorsement requiring sixty (60) days' written notice to Owner prior to any cancellation or alteration of said coverage. Said coverage shall be written by an insurer properly licensed in Idaho and having a Best's rating of A or A+ and shall be in a form reasonably acceptable to Owner. Insurance required by this Agreement must apply separately to each insured against whom a claim is made or suit is brought, except with respects to the limits of the company's liability.

21.3 Increases in Coverage. At the request of Owner, Design/Builder shall increase the above insurance limits or obtain additional coverage at Owner's expense.

21.4 Subrogation. Owner and Design/Builder waive all rights against each other and against the respective consultants, subcontractors, agents and employees of the other for damages covered by Exhibit "Y", part 3, Property Insurance except that neither waives any right to seek to recover from the other deductibles or other amounts required to be paid in self insurance before such property coverage becomes effective and neither waives any right as they have to proceeds of such insurance held by Design/Builder. Further, Owner does not waive its subrogation rights to the extent of its property insurance on structures or portions of structures that do not comprise the Work. Owner and Design/Builder each shall require appropriate similar waivers from their consultants, subcontractors and agents.

ARTICLE 22

SURETY BONDS

22.1 Performance Bond and Payment Bond. Within fifteen (15) days of execution of this Agreement, Design/Builder must furnish separate performance and payment bonds to Owner. Each bond shall set forth a penal sum in an amount not less than the Fixed Contract Price. Each bond furnished by Design/Builder shall incorporate by reference the terms of the Agreement as fully as though they were set forth verbatim in such bonds. In the event the Fixed Contract Price is adjusted by Change Order executed by Design/Builder, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by Design/Builder shall be in form suitable to Owner and shall be executed by a surety, or sureties, properly licensed in Idaho and having a Best's rating of A. Design/Builder recognizes and acknowledges that the performance bond must cover all services (design and construction) to be provided by the Design/Builder under this Agreement.

ARTICLE 23

MISCELLANEOUS PROVISIONS

23.1 Governing Law. The Agreement shall be governed by the laws of the State of Idaho. The parties agree that venue for any filed legal proceeding will be in the state courts of Ada County, Idaho and hereby consent to the jurisdiction of such courts.

23.2 Successors and Assigns. Owner and Design/Builder bind themselves, their successors, assigns, executors, administrators and other legal representatives to the other party hereto and to successors, assigns, executors, administrators and other legal representatives of such other party in respect to all terms and conditions of this Contract.

23.3 Assignment. Design/Builder shall not assign the Agreement, or any part of the Agreement, without prior written consent of Owner.

23.4 Notices. Any notice required to be given herein shall be deemed to have been given to the other party if (1) given by first class mail, registered or express mail, courier service, or hand delivery; or (2) by fax, provided that such notice is also confirmed by first class mail, registered or express mail, courier service, or hand delivery to the following addresses:

TO OWNERS:

Division of Public Works
502 N. 4th Street
P.O. Box 8372
Boise, ID 83720-0072
Attn: Administrator

TO DESIGN/BUILDER:

_____ Company Inc.

Attn: _____

All notices shall be effective upon receipt.

23.5 Publicity. No information relative to the existence or the details of the Design Services or the Work shall be released by Design/Builder, either before or after

completion of the Project, for publication, advertising or any commercial purposes without Owner's prior written consent.

23.6 Severability. In the event that any portion or any portions of this Contract are held to be unenforceable by a court of competent jurisdiction, then the remainder of this Contract shall be enforced as though such portions had not been included, unless to do so would cause this Contract to fail of its essential purposes.

23.7 Effective Date. The effective date of this Contract is xx/xx/xx.

ARTICLE 24

DISPUTE RESOLUTION

24.1 Initial Dispute Resolution. If a dispute arises out of or relates to this Agreement or its breach, the parties shall endeavor to settle the dispute first through direct discussions. If the dispute cannot be settled through direct discussions, the parties shall endeavor to settle the dispute by mediation.

24.2 Work Continuance and Payment. Unless otherwise agreed in writing, the Design/Builder shall continue the Work and maintain the approved schedules during any mediation proceedings. If the Design/Builder continues to perform, the Owner shall continue to make payments in accordance with this Agreement.

24.3 Multiparty Proceeding. The parties agree that all parties necessary to resolve a dispute shall be parties to the same mediation proceeding.

24.4 If Mediation Fails. If mediation fails to resolve the dispute, either party may file an action in the state courts of Ada County, Idaho.

Executed by the parties' duly authorized representatives as indicated by their signatures below.

OWNER
Division Of Public Works
502 N. 4th Street
Boise, Idaho 83720-0072

DESIGN/BUILDER
_____ Company Inc.

By: _____
Tim Mason, Administrator,
Division of Public Works

By: _____
_____, Principal in Charge
Tax ID. No. _____

15.1. EXHIBIT A-F TO BE COMPLETED DURING CONTRACT FINALIZATION & DURING PROJECT EXECUTION

EXHIBIT A

OWNER'S PROJECT IDENTIFICATION INFORMATION:

DPW Project No. DPW Project No. 08-321

Project Title: Idaho State Liquor Dispensary Automate Storage Retrieval System

Project Location: Boise, Idaho

General Project Description: XX

ADDENDA: Addenda applicable to the Contract and made a part of are as follows:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

FIXED PRICE CONTRACT AMOUNT AND ACCEPTED ALTERNATES:

Base Bid Amount:		\$.00
Alternate No. ____ (_____)	add	\$.00
Total Contract Price	(_____) Dollars	\$.00

Contractor's Requests for Payment are to be submitted for Work accomplished through the ____ day of each month as described in Paragraph 7.3.

TIME FOR PERFORMANCE AND LIQUIDATED DAMAGES:

A. The Contractor shall commence construction of its scope of the Work in accordance with the Notice to Proceed issued by the Owner, and which will become Exhibit I to this Contract.

B. The Contractor shall accomplish Substantial Completion as defined in Article 7 of the Contract within _____ (120)consecutive calendar days from the date authorized to proceed in the Notice to Proceed.

C. The amount of liquidated damages per day for each and every day of unexcused delay as outlined in Article 6 on the Contract is: _____ Dollars (\$_____)

DRAWINGS AND SPECIFICATIONS

The Owner shall furnish the Contractor _____ sets of Drawings and Project Manuals.

EXHIBIT B

ADDRESSES and AUTHORIZED REPRESENTATIVES: The names, addresses and authorized representatives of the Owner, the Contractor and the Design Professional are:

OWNER: State of Idaho
 Division of Public Works
 502 N. 4th Street
 P.O. Box 83720
 Boise, ID 83720-0072
 Tim Mason, Administrator

Project Manager: John Costner Architect, PM
 Telephone: (208) 332-1913
 E-mail: john.costner@adm.idaho.gov
 Fax: (208) 334-4031
 May sign for Owner: Yes [X] No []
 Change Orders: up to \$20,000

Field Representative: [Name]
 Telephone: (208) 332-1907
 E-mail: dave.rooke@adm.idaho.gov
 Fax: (208) 334-4031
 May sign for Owner: Yes [X] No []
 Change Orders: up to \$10,000

CONTRACTOR:

Company name	
Address	
City, State, Zip	
Telephone & Fax	
Public Works Contractors License No.	

Officer:

<u>Name & Title</u>	
<u>Telephone</u>	
<u>Email</u>	

Contractor's Project Manager:

<u>Name & Title</u>	
<u>Telephone</u>	
<u>Email</u>	

May sign for Contractor: Yes [] No []

**Contractor's
Superintendent:**

<u>Name & Title</u>	
<u>Telephone</u>	
<u>Email</u>	

May sign for Contractor: Yes [] No []

PROFESSIONAL: (Architect) (Engineer) (other)

<u>Firm Name</u>	
<u>Address</u>	
<u>City, State, Zip</u>	
<u>Telephone & Fax</u>	

**Professional's
Project Manager:**

<u>Name & Title</u>	
<u>Telephone</u>	
<u>Email</u>	
<u>Professional License No.</u>	

**Professional's
Field Representative:**

<u>Name & Title</u>	
<u>Telephone</u>	
<u>Email</u>	

May sign for Design Professional:

- Field Reports Yes [] No []
- Change Order Proposal Requests Yes [] No []
- Construction Change Authorization: Yes [] No []
- Construction Change Order Yes [] No []
- Design Professional's Supplemental Instructions Yes [] No []
- Interpretations of the Contract Documents Yes [] No []
- Contractor's Request for Payment Yes [] No []
- Acceptance of Substantial Completion Yes [] No []
- Acceptance of final completion Yes [] No []

EXHIBIT C

****LIST ALL DRAWINGS AND SPECIFICATIONS. COORDINATE WITH DRAWINGS AND PROJECT MANUAL TABLE OF CONTENTS****

LIST OF DRAWINGS:

LIST OF SPECIFICATIONS:

EXHIBIT D

CONTRACTOR'S AFFIDAVIT CONCERNING TAXES

STATE OF _____)

COUNTY OF _____)

Pursuant to the Title 63, Chapter 15, Idaho Code I, the undersigned, being duly sworn, depose and certify that all taxes, excises and license fees due to the State or its taxing units, for which I or my property is liable then due or delinquent, has been paid, or arrangements have been made, before entering into a Contract for construction of any public works in the State of Idaho.

Name of contractor	
Address	
City, State, Zip	

By: _____
(Signature)

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

Commission expires:

NOTARY PUBLIC, residing at

EXHIBIT E

NAMED SUBCONTRACTORS:

Pursuant to Section 67-2310, Idaho Code, commonly known as the naming law, the names and addresses of the entities who will perform the plumbing, heating and air conditioning and electrical work were named in the bid and are as follows:

Electrical (PWCL Category 1600)

(Name) _____

(Address) _____

Idaho Public Works Contractors License No. _____

Idaho Electrical Contractors License No. _____

EXHIBIT F



REQUEST FOR TAX RELEASE

Date: _____

RE: DPW Project Number: _____

Project Name: _____

State Agency: _____

Project Location: _____

Contractor Requesting Release – Name: _____

Address: _____

Contact Name: _____

Telephone Number: _____

Federal Employer Identification No.: _____

Project Information:

Project is Complete: _____

Project is Substantially Complete: _____

Project Start Date: _____

Project Complete Date: _____

Final Contract Amount (including change orders): _____

Did any public works or other governmental agency supply materials, which were installed by this Contractor or his subcontractors? Yes _____ No _____

If yes, list these materials and their dollar values: _____

To request a Tax Release, please send this form to:

Attn: Contract Desk; Sales Tax Audit; Idaho State Tax Commission;
PO Box 36; Boise, ID 83722

EXHIBIT G

RELEASE OF CLAIMS

(TO BE COMPLETED FOR FINAL PAYMENT)

I, _____, do hereby release the State of Idaho from any and all claims of any character whatsoever arising under and by virtue of contract number _____ Dated _____ as amended, except as herein stated.

Dated _____ Contractor _____