



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

**Division of Facilities Construction and Management**

**DFCM**

# **STANDARD LOW BID PROJECT - INVITATIONAL**

**July 15, 2010**

## **ABC STORE #22 LOADING DOCK IMPROVEMENT**

### **DEPARTMENT OF ALCOHOLIC BEVERAGE CONTROL**

### **BRIGHAM CITY, UTAH**

DFCM Project Number: 10121030

**Richards Bott Architects**

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

**DFCM Supplemental General Conditions dated July 1, 2010 \***

- DFCM Supplemental General Conditions revised May 11, 2010
- DFCM Supplemental General Conditions dated July 1, 2009
- DFCM Supplemental General Conditions dated July 15, 2008
- DFCM General Conditions dated May 25, 2005
- DFCM Application and Certification for Payment dated May 25, 2005.

**\* NOTE: THE NEW SUPPLEMENTAL GENERAL CONDITIONS EFFECTIVE JULY 1, 2010 ADDRESSING DRUG AND ALCOHOL TESTING ARE REFERENCED AT THE LINK ABOVE.**

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

## **INVITATION TO BID**

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

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

**ABC STORE #22 LOADING DOCK IMPROVEMENTS**  
**DEPARTMENT OF ALCOHOLIC BEVERAGE CONTROL – BRIGHAM CITY, UTAH**  
**DFCM PROJECT NO: 10121030**

<u>Company</u>	<u>Contact</u>	<u>Fax</u>
Patriot Construction	Paul Groberg	888-867-1845
Bailey Construction	Susan Griehm	435-753-3636
Saunders Construction	Craig Saunders	801-782-7856

Bids will be in accordance with the Contract Documents that will be available on **Thursday, July 15, 2010**, and distributed in electronic format only on CDs from DFCM, 4110 State Office Building, Salt Lake City, Utah and on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact Brian Bales, DFCM, at 801-230-3129. No others are to be contacted regarding this bidding process. The construction estimate for this project is \$54,750.00.

A **mandatory** pre-bid meeting will be held at **3:30 PM on Wednesday, July 21, 2010** at 43 South 100 West, Brigham City, Utah. All bidders wishing to bid on this project are required to attend this meeting.

Bids will be received until the hour of **3:30 PM on Monday, August 2, 2010** at DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. NOTE: Bids must be received at 4110 State Office Building by the specified time.

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

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

**DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT**  
Joanna Reese, Contract Coordinator  
4110 State Office Building, Salt Lake City, Utah 84114

## **PROJECT DESCRIPTION**

The Brigham City Utah Liquor store currently has an unprotected loading dock which has suffered premature wear due to exposure to the elements.

This project includes removal of the existing dock and installation of a new sizer platform loading dock and fabricating and installing a new steel canopy. The project will require electrical improvements and concrete work for the dock and canopy.

**PROJECT SCHEDULE****PROJECT NAME: ABC STORE #22 LOADING DOCK IMPROVEMENTS – DEPARTMENT OF ALCOHOLIC BEVERAGE CONTROL – BRIGHAM CITY, UTAH****DFCM PROJECT NO. 10121030**

<b>Event</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Place</b>
Bidding Documents Available	Thursday	July 15, 2010	4:00 PM	DFCM 4110 State Office Bldg SLC, UT and the DFCM web site *
<b>Mandatory</b> Pre-bid Site Meeting	Wednesday	July 21, 2010	3:00 PM	43 South 100 West Brigham City, Utah
Last Day to Submit Questions	Monday	July 26, 2010	12:00 Noon	Brian Bales – DFCM E-mail:brbales@utah.gov Fax 801-538-3267
Addendum Deadline (exception for bid delays)	Wednesday	July 28, 2010	4:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	Monday	August 2, 2010	3:30 PM	DFCM 4110 State Office Bldg SLC, UT
Sub-contractor List Due	Tuesday	August 3, 2010	3:30 PM	DFCM 4110 State Office Bldg SLC, UT Fax 801-538-3677
Substantial Completion Date	Wednesday	November 10, 2010	3:30 PM	

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



## BID FORM

NAME OF BIDDER \_\_\_\_\_ DATE \_\_\_\_\_

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

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the ABC Store #22 Loading Dock Improvements – Department of Alcoholic Beverage Control – Brigham City, Utah – DFCM Project No. 10121030 and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: \_\_\_\_\_

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

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_)  
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by November 10, 2010, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **\$100.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

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

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

The undersigned Contractor's License Number for Utah is \_\_\_\_\_.

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

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

Type of Organization:

\_\_\_\_\_  
(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

\_\_\_\_\_

Respectfully submitted,

\_\_\_\_\_  
Name of Bidder

ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

# INSTRUCTIONS TO BIDDERS

## 1. Drawings and Specifications, Other Contract Documents

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

## 2. Bids

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

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

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

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

## 3. Contract and Bond

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

**4. Listing of Subcontractors**

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

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

**5. Interpretation of Drawings and Specifications**

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

**6. Addenda**

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

**7. Award of Contract**

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

**8. DFCM Contractor Performance Rating**

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

**9. Licensure**

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

**10. Permits**

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

**11. Right to Reject Bids**

DFCM reserves the right to reject any or all Bids.

**12. Time is of the Essence**

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

**13. Withdrawal of Bids**

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

**14. Product Approvals**

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

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

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

**16. Debarment**

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

**BID BOND**

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

**KNOW ALL PERSONS BY THESE PRESENTS:**

That \_\_\_\_\_ hereinafter referred to as the "Principal," and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ and authorized to transact business in this State and U. S. Department of the Treasury Listed, (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the STATE OF UTAH, hereinafter referred to as the "Obligee," in the amount of \$ \_\_\_\_\_ (5% of the accompanying bid), being the sum of this Bond to which payment the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH** that whereas the Principal has submitted to Obligee the accompanying bid incorporated by reference herein, dated as shown, to enter into a contract in writing for the \_\_\_\_\_ Project.

**NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH**, that if the said principal does not execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the principal, then the sum of the amount stated above will be forfeited to the State of Utah as liquidated damages and not as a penalty; if the said principal shall execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the Principal, then this obligation shall be null and void. It is expressly understood and agreed that the liability of the Surety for any and all defaults of the Principal hereunder shall be the full penal sum of this Bond. The Surety, for value received, hereby stipulates and agrees that obligations of the Surety under this Bond shall be for a term of sixty (60) days from actual date of the bid opening.

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

**IN WITNESS WHEREOF**, the above bounden parties have executed this instrument under their several seals on the date indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**DATED** this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

**Principal's name and address (if other than a corporation):**

\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**Principal's name and address (if a corporation):**

\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_  
(Affix Corporate Seal)

**Surety's name and address:**

\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_  
Attorney-in-Fact (Affix Corporate Seal)

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

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

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
My Commission Expires: \_\_\_\_\_  
Resides at: \_\_\_\_\_

**Agency:** \_\_\_\_\_  
**Agent:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

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



**Division of Facilities Construction and**

**INSTRUCTIONS AND SUBCONTRACTORS LIST FORM**

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

**DOLLAR AMOUNTS FOR LISTING**

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

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

**LICENSURE:**

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

**‘SPECIAL EXCEPTION’:**

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

**GROUNDS FOR DISQUALIFICATION:**

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

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

**CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:**

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

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

**EXAMPLE:**

Example of a list where there are only four subcontractors:

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

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

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



Division of Facilities Construction and

SUBCONTRACTORS LIST
FAX TO 801-538-3677

PROJECT TITLE: \_\_\_\_\_

Caution: You must read and comply fully with instructions.

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

We certify that:

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

FIRM: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_

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

**CONTRACTOR'S AGREEMENT**

FOR:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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

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

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

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

The DFCM General Conditions ("General Conditions") dated May 25, 2005 and all Supplemental General Conditions ("also referred to as General Conditions") on file at the office of DFCM and available on the DFCM website (<http://dfcm.utah.gov/StdDocs/index.html>), are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



**PERFORMANCE BOND**

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

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

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

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

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

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

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

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

**WITNESS OR ATTESTATION:**

**PRINCIPAL:**

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

(Seal)

Title: \_\_\_\_\_

**WITNESS OR ATTESTATION:**

**SURETY:**

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Attorney-in-Fact (Seal)

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

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

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

My commission expires: \_\_\_\_\_

Resides at: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

**Agency:** \_\_\_\_\_  
**Agent:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

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

**PAYMENT BOND**

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

**KNOW ALL PERSONS BY THESE PRESENTS:**

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

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

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

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

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

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

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**PRINCIPAL:**

\_\_\_\_\_

By: \_\_\_\_\_ (Seal)

Title: \_\_\_\_\_

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**SURETY:**

\_\_\_\_\_

By: \_\_\_\_\_ Attorney-in-Fact (Seal)

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

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

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

My commission expires: \_\_\_\_\_  
Resides at: \_\_\_\_\_

NOTARY PUBLIC

**Agency:** \_\_\_\_\_  
**Agent:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

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



CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT \_\_\_\_\_ PROJECT NO: \_\_\_\_\_

AGENCY/INSTITUTION \_\_\_\_\_

AREA ACCEPTED \_\_\_\_\_

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

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

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

\_\_\_\_\_  
\_\_\_\_\_

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

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

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

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

\_\_\_\_\_ by: \_\_\_\_\_  
CONTRACTOR (include name of firm) (Signature) DATE

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

\_\_\_\_\_ by: \_\_\_\_\_  
USING INSTITUTION OR AGENCY (Signature) DATE

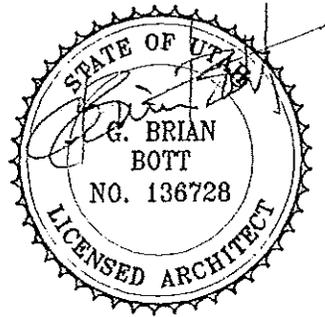
\_\_\_\_\_ by: \_\_\_\_\_  
DFCM (Owner) (Signature) DATE

**r**ichards  
**b**ott  
**a**rchitects

# Utah State Liquor Store Remodel - Brigham City

43 South 100 West  
Brigham City, UT 84301

project no.: 0945  
dated: 05.28.10

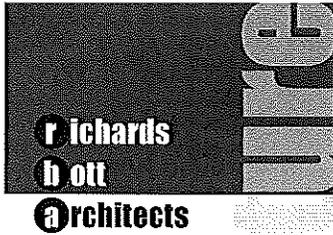


ARCHITECT

Richards Bott Architects  
620 24th Street  
Ogden, Utah 84401  
801.394.3033

801.394.3033  
fax 394.9064

mail@rbarchitects.net



# Utah State Liquor Store Remodel Brigham City

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Project Directory

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### Division 3 - Concrete

03 0154 trench drain  
03 3053 miscellaneous cast-in-place concrete

### Division 5: Metals

05 1200 structural steel framing

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### Division 7 - Thermal and Moisture Protection:

07 4113 metal roof panels

### Division 8 - Not Used

### Division 9 - Finishes:

09 9113 exterior painting

### Division 10 - Not Used

### Division 11 - Equipment

11 1600 loading dock equipment

### Division 12 through 25 - Not Used

### Division 26 - Electrical

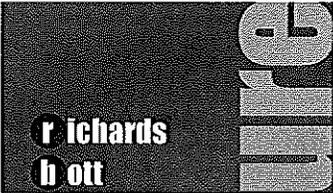
26 0501 common electrical requirements  
26 0519 line-voltage conductors and cables  
26 0520 heating cables  
26 0533 raceway and boxes for electrical systems  
26 5600 exterior lighting

### Division 31 - Earthwork

31 2323 Fill

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fax 394.9064

mail@rbarchitects.net



**r**ichards  
**b**ott  
**a**rchitects

# Utah State Liquor Store Remodel Brigham City

**Division 32 - Exterior Improvements**

32 1216 asphalt paving

**Division 33 through 49: Not Used**

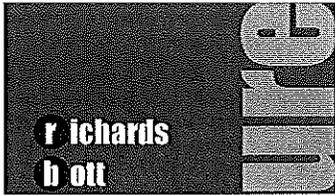
**Appendix:**

special inspection and testing under the provisions of IBC 1704 and for miscellaneous areas

End of Table of Contents

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mail@rbarchitects.net



**richards  
bott  
architects**

# Utah State Liquor Store Remodel - Brigham City

## Division 3 - Concrete:

03 0154 trench drain

03 3053 miscellaneous cast-in-place concrete

## Concrete

801.394.3033  
fax 394.9064

mail@rbarchitects.net

Division **3**

**SECTION 03 0154– TRENCH DRAIN****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes:
  - 1. Trench drains

**1.2 SUBMITTALS**

- A. Product Data: For each type of product indicated.
- B. Maintenance data.

**1.3 PRODUCTS**

- A. 6 inch wide trench drainage system.
  - 1. Channels
    - a. Pre-cast high density fiberglass structural composite material with radiused bottoms.
    - b. Rebar post.
    - c. Interlocking sections and horizontal anchoring ribs.
    - d. 4 inch vertical knock-out
  - 2. Grates - Slotted cast iron with built-in lock-down mechanism.
  - 3. Quality Standard - Z-883 trench drain system.
- B. Approved Manufacturers
  - 1. ABT Inc, Troutman, NC (800) 438-6057 or (704) 528-9806
  - 2. ACO Polymer Products Inc, Chardon, OH (800) 543-4764 or (440) 285-7000  
[www.acousa.com](http://www.acousa.com)
  - 3. Polycast by Strongwell Ebert, Bristol, VA (800) 231-0595 or (540) 645-8132  
[www.strongwell.com](http://www.strongwell.com)
  - 4. Perma-Pipe System by Zurn

**END OF SECTION 03 0154**

**SECTION 03 3053 - MISCELLANEOUS CAST-IN-PLACE CONCRETE****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section includes cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes.

**1.2 SUBMITTALS**

- A. Product Data: For each type of product indicated.
- B. Other Action Submittal:
  - 1. Design Mixtures: For each concrete mixture.

**1.3 QUALITY ASSURANCE**

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. Comply with ACI 301.
- C. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

**PART 2 - PRODUCTS****2.1 FORMWORK**

- A. Furnish formwork and formwork accessories according to ACI 301.

**2.2 STEEL REINFORCEMENT**

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.

**2.3 CONCRETE MATERIALS**

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
  - 1. Portland Cement: ASTM C 150, Type I.

- a. Fly Ash: ASTM C 618, Class C or F.
  - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- B. Normal-Weight Aggregate: ASTM C 33, graded, 1-1/2-inch nominal maximum aggregate size.
- C. Water: ASTM C 94/C 94M.

## 2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
  2. Retarding Admixture: ASTM C 494/C 494M, Type B.
  3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
  4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
  5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
  6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

## 2.5 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth or cotton mats.
- C. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

## 2.6 CONCRETE MIXTURES

- A. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
1. Minimum Compressive Strength: 4500 psi at 28 days.
  2. Maximum Water-Cementitious Materials Ratio: 0.45.
  3. Cementitious Materials: Use fly ash, pozzolan, ground granulated blast-furnace slag, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 40 percent.
  4. Slump Limit: 4 inches maximum.
  5. Air Content: Maintain within range permitted by ACI 301. Do not allow air content of trowel-finished floor slabs to exceed 3 percent.

**2.7 CONCRETE MIXING**

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116, and furnish batch ticket information.
  - 1. When air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

**PART 3 - EXECUTION****3.1 FORMWORK**

- A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

**3.2 EMBEDDED ITEMS**

- A. Place and secure anchorage devices and other embedded items required for adjoining work attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

**3.3 STEEL REINFORCEMENT**

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
  - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

**3.4 JOINTS**

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
  - 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.

**3.5 CONCRETE PLACEMENT**

- A. Comply with ACI 301 for placing concrete.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.

- C. Do not add water to concrete during delivery, at Project site, or during placement.
- D. Consolidate concrete with mechanical vibrating equipment.

### **3.6 FINISHING FORMED SURFACES**

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched. Remove fins and other projections exceeding 1/2 inch.
  - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Remove fins and other projections exceeding 1/8 inch.
  - 1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish.
- C. Rubbed Finish: Apply the following rubbed finish, defined in ACI 301, to smooth-formed finished as-cast concrete where indicated:
  - 1. Smooth-rubbed finish.
  - 2. Grout-cleaned finish.
  - 3. Cork-floated finish.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

### **3.7 FINISHING UNFORMED SURFACES**

- A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on surface.
  - 1. Do not further disturb surfaces before starting finishing operations.
- C. Scratch Finish: Apply scratch finish to surfaces indicated and surfaces to receive concrete floor topping or mortar setting beds for ceramic or quarry tile, portland cement terrazzo, and other bonded cementitious floor finishes, unless otherwise indicated.
- D. Float Finish: Apply float finish to surfaces indicated, to surfaces to receive trowel finish, and to floor and slab surfaces to be covered with fluid-applied or sheet waterproofing, fluid-applied or direct-to-deck-applied membrane roofing, or sand-bed terrazzo.

- E. Trowel Finish: Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin film-finish coating system.
- F. Trowel and Fine-Broom Finish: Apply a partial trowel finish, stopping after second troweling, to surfaces indicated and to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set methods. Immediately after second troweling, and when concrete is still plastic, slightly scarify surface with a fine broom.
- G. Nonslip Broom Finish: Apply a nonslip broom finish to surfaces indicated and to exterior concrete platforms, steps, and ramps. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.

### **3.8 CONCRETE PROTECTING AND CURING**

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 301 for hot-weather protection during curing.
- B. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- C. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods:
  - 1. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

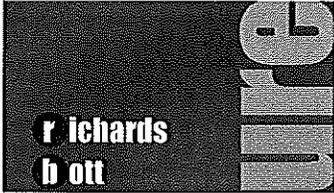
### **3.9 FIELD QUALITY CONTROL**

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Tests: Perform according to ACI 301.
  - 1. Testing Frequency: One composite sample shall be obtained for each day's pour of each concrete mix exceeding 5 cu. yd. but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
  - 2. Testing Frequency: One composite sample shall be obtained for each 100 cu. yd. or fraction thereof of each concrete mix placed each day.

### **3.10 REPAIRS**

- A. Remove and replace concrete that does not comply with requirements in this Section.

### **END OF SECTION 03 3053**



# Utah State Liquor Store Remodel - Brigham City

Division 5 - Metals:  
05 1200 structural steel framing

**Metals**

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Division **5**

**SECTION 05 1200 - STRUCTURAL STEEL FRAMING****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section includes structural steel and grout.
- B. Related Sections:
  - 1. Division 05 Section "Architecturally Exposed Structural Steel Framing" for additional requirements for architecturally exposed structural steel.

**1.2 DEFINITIONS**

- A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

**1.3 PERFORMANCE REQUIREMENTS**

- A. Connections: Provide details of simple shear connections required by the Contract Documents to be selected or completed by structural-steel fabricator to withstand loads indicated and comply with other information and restrictions indicated.
  - 1. Select and complete connections using schematic details indicated.

**1.4 SUBMITTALS**

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication of structural-steel components.
- C. Welding certificates.
- D. Mill test reports for structural steel, including chemical and physical properties.

**1.5 QUALITY ASSURANCE**

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.
- B. Installer Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector, Category CSE.
- C. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- D. Preinstallation Conference: Conduct conference at Project site.

**PART 2 - PRODUCTS****2.1 STRUCTURAL-STEEL MATERIALS**

- A. Plate and Bar: ASTM A 36/A 36M.
- B. Cold-Formed Hollow Structural Sections: ASTM A 500, Grade B, structural tubing.
- C. Steel Pipe: ASTM A 53/A, Type E or S, Grade B.
- D. Welding Electrodes: Comply with AWS requirements.

**2.2 BOLTS, CONNECTORS, AND ANCHORS**

- A. High-Strength Bolts, Nuts, and Washers: ASTM A 325, Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade C, heavy-hex carbon-steel nuts; and ASTM F 436, Type 1, hardened carbon-steel washers; all with plain finish.
  - 1. Direct-Tension Indicators: ASTM F 959, Type 325, compressible-washer type with plain finish.
- B. Zinc-Coated High-Strength Bolts, Nuts, and Washers: ASTM A 325, Type 1, heavy-hex steel structural bolts; ASTM A 563, Grade DH heavy-hex carbon-steel nuts; and ASTM F 436, Type 1, hardened carbon-steel washers.
  - 1. Finish: Hot-dip zinc coating.

**2.3 PRIMER**

- A. Primer: Comply with Division 09 painting Sections.
- B. Primer: SSPC-Paint 25, Type I, zinc oxide, alkyd, linseed oil primer.
- C. Primer: Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.

**2.4 GROUT**

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

**2.5 FABRICATION**

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges" and AISC 360.

- B. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Use automatic end welding of headed-stud shear connectors according to AWS D1.1/D1.1M and manufacturer's written instructions.

## **2.6 SHOP CONNECTIONS**

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Pretensioned.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

## **2.7 SHOP PRIMING**

- A. Shop prime steel surfaces except the following:
  - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches.
  - 2. Surfaces to be field welded.
  - 3. Surfaces to be high-strength bolted with slip-critical connections.
  - 4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
  - 5. Galvanized surfaces.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
  - 1. SSPC-SP 2, "Hand Tool Cleaning."
  - 2. SSPC-SP 3, "Power Tool Cleaning."
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.

## **2.8 SOURCE QUALITY CONTROL**

- A. Testing Agency: Owner will engage an independent testing and inspecting agency to perform shop tests and inspections and prepare test reports.
  - 1. Provide testing agency with access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
- B. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

- C. Bolted Connections: Shop-bolted connections will be inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- D. Welded Connections: In addition to visual inspection, shop-welded connections will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
  - 1. Liquid Penetrant Inspection: ASTM E 165.
  - 2. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
  - 3. Ultrasonic Inspection: ASTM E 164.
  - 4. Radiographic Inspection: ASTM E 94.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify, with steel Erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### **3.2 ERECTION**

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Base Bearing Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
  - 2. Weld plate washers to top of baseplate.
  - 3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- C. Maintain erection tolerances of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges."

#### **3.3 FIELD CONNECTIONS**

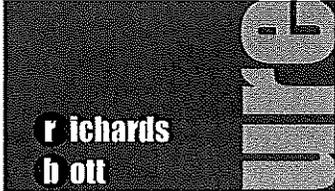
- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: Pretensioned.

- B. Weld Connections: Comply with AWS D1.1 and AWS D1.8 for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
  - 1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

### **3.4 FIELD QUALITY CONTROL**

- A. Bolted Connections: Bolted connections will be inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- B. Welded Connections: Field welds will be visually inspected according to AWS D1.1/D1.1M.
  - 1. In addition to visual inspection, field welds will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
- C. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

**END OF SECTION 05 1200**



# Utah State Liquor Store Remodel - Brigham City

Division 7 - Thermal and Moisture Protection:  
07 4113 metal roof panels

## Thermal and Moisture Protection

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Division **7**

**SECTION 07 4113 - METAL ROOF PANELS****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes:
  - 1. Standing-seam metal roof panels.
- B. Related Sections:
  - 1. Division 07 Section "Sheet Metal Roofing" for custom-fabricated and on-site, roll-formed sheet metal roofing.

**1.2 PERFORMANCE REQUIREMENTS**

- A. Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E 2140.
- B. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.
  - 1. Uplift Rating: UL 90.
- C. FMG Listing: Provide metal roof panels and component materials that comply with requirements in FMG 4471 as part of a panel roofing system and that are listed in FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.
  - 1. Fire/Windstorm Classification: Class 1A-90.
- D. Structural Performance: Provide metal roof panel assemblies capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated, based on testing according to ASTM E 1592:
  - 1. Wind Loads: Determine loads based on the following minimum design wind pressures:
    - a. Uniform pressure of 20 lbf/sq. ft., acting inward or outward.
  - 2. Snow Loads: 30 lbf/sq. ft..
  - 3. Deflection Limits: Metal roof panel assemblies shall withstand wind and snow loads with vertical deflections no greater than 1/180 of the span.

**1.3 SUBMITTALS**

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: Show fabrication and installation layouts of metal roof panels; details of edge conditions, side-seam and endlap joints, panel profiles, corners, anchorages, trim, flashings, closures, and accessories; and special details. Distinguish between factory- and field-assembled work.
- C. Samples: For each type of exposed finish required.
- D. Delegated-Design Submittal: For metal roof panel assembly indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Coordination Drawings: Roof plans, drawn to scale, based on input from installers of the items involved.
- F. Manufacturer Certificates: Signed by manufacturer certifying that roof panels comply with energy performance requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of meeting performance requirements.
- G. Product test reports.
- H. Field quality-control reports.
- I. Maintenance data.
- J. Warranties: Samples of special warranties.

#### **1.4 QUALITY ASSURANCE**

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Preinstallation Conference: Conduct conference at Project site.

#### **1.5 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace metal roof panel assemblies that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: 5 years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Finish Warranty Period: 20 years from date of Substantial Completion.

**PART 2 - PRODUCTS****2.1 PANEL MATERIALS**

- A. Metallic-Coated Steel Sheet: Restricted flatness steel sheet metallic coated by the hot-dip process and prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
1. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 coating designation; structural quality.
  2. Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; structural quality.
  3. Surface: Smooth finish.
  4. Exposed Coil-Coated Finish:
    - a. 3-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat.
  5. Concealed Finish: Manufacturer's standard white or light-colored acrylic or polyester backer finish.
- B. Aluminum Sheet: Coil-coated sheet, ASTM B 209, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.
1. Surface: Smooth finish.
  2. Exposed Coil-Coated Finish:
    - a. 3-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat.
  3. Concealed Finish: White or light-colored acrylic or polyester backer finish.
- C. Panel Sealants:
1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing; 1/2 inch wide and 1/8 inch thick.
  2. Joint Sealant: ASTM C 920; as recommended in writing by metal roof panel manufacturer.
  3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C 1311.

**2.2 UNDERLAYMENT MATERIALS**

- A. Self-Adhering, High-Temperature Sheet: 30 mils thick minimum, consisting of slip-resisting, polyethylene-film top surface laminated to layer of butyl or SBS-modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
1. Thermal Stability: Stable after testing at 240 deg F; ASTM D 1970.
  2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F; ASTM D 1970.

3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Carlisle Coatings & Waterproofing Inc., Div. of Carlisle Companies Inc.; CCW WIP 300HT.
  - b. Grace Construction Products; a unit of Grace, W. R. & Co.; Ultra.
  - c. Henry Company; Blueskin PE200 HT.
  - d. Metal-Fab Manufacturing, LLC; MetShield.
  - e. Owens Corning; WeatherLock Metal High Temperature Underlayment.
- B. Felts: ASTM D 226, Type II (No. 30), asphalt-saturated organic felts.
- C. Slip Sheet: Manufacturer's recommended slip sheet, of type required for application.

### **2.3 MISCELLANEOUS METAL FRAMING**

- A. Miscellaneous Metal Framing, General: ASTM C 645, cold-formed metallic-coated steel sheet, ASTM A 653, G40 hot-dip galvanized or coating with equivalent corrosion resistance unless otherwise indicated.
- B. Hat-Shaped, Rigid Furring Channels:
  1. Nominal Thickness: As required to meet performance requirements.
  2. Depth: 1-1/2 inches.
- C. Cold-Rolled Furring Channels: Minimum 1/2-inch-wide flange.
  1. Nominal Thickness: As required to meet performance requirements.
  2. Depth: 3/4 inch.
  3. Furring Brackets: Adjustable, corrugated-edge type of steel sheet with nominal thickness of 0.040 inch.
  4. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.
- D. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches, wall attachment flange of 7/8 inch, and depth required to fit insulation thickness indicated.
  1. Nominal Thickness: As required to meet performance requirements.

### **2.4 MISCELLANEOUS MATERIALS**

- A. Panel Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Provide exposed fasteners with heads matching color of metal roof panels by means of plastic caps or factory-applied coating. Provide EPDM, PVC, or neoprene sealing washers.
- B. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## 2.5 STANDING-SEAM METAL ROOF PANELS

- A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.
1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1514.
  2. Aluminum Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1637.
  3. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. AEP-Span.
    - b. Architectural Building Components.
    - c. Architectural Metal Systems.
    - d. Architectural Roofing and Siding, Inc.
    - e. ATAS International, Inc.
    - f. Berridge Manufacturing Company.
    - g. Butler Manufacturing; a BlueScope Steel company.
    - h. CENTRIA Architectural Systems.
    - i. Copper Sales, Inc.
    - j. Dimensional Metals, Inc.
    - k. Englert, Inc.
    - l. Fabral.
    - m. Flexospan Steel Buildings, Inc.
    - n. Galvamet; Galvacer Building Systems.
    - o. IMETCO.
    - p. Integris Metals.
    - q. MBCI; a division of NCI Building Systems, L. P.
    - r. McElroy Metal, Inc.
    - s. Merchant & Evans.
    - t. Metal-Fab Manufacturing, LLC.
    - u. Metal Sales Manufacturing Corporation.
    - v. Metecno-Morin; Division of Metecno Inc.
    - w. Modern Metal Systems, Inc.
    - x. Petersen Aluminum Corporation.
    - y. Steelo Systems, L.L.C.
    - z. Ultra Seam Incorporated.
    - aa. United Steel Deck Inc.; Subsidiary of Bouras Industries Inc.
    - bb. VICWEST; Div. of Jenisys Engineered Products.
  5. Profile: Vertical-rib, snap-joint, as indicated on Drawings.
  6. Material: Zinc-coated (galvanized) steel sheet, 0.022-inch nominal thickness.
    - a. Exterior Finish: 3-coat fluoropolymer.
    - b. Color: As selected by Architect from manufacturer's full range.
  7. Material: Aluminum sheet, 0.040 inch thick.

- a. Exterior Finish: 3-coat fluoropolymer.
  - b. Color: As selected by Architect from manufacturer's full range.
8. Clips: Fixed.
- a. Material: Metallic coated steel.
9. Joint Type: Snap-Clad, Peterson Aluminum Design Standard.
10. Panel Coverage: 16" o.c.
11. Panel Height: 1-3/4".

## 2.6 ACCESSORIES

- A. Roof Panel Accessories: Provide components approved by roof panel manufacturer and as required for a complete metal roof panel assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.
- 1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal roof panels.
  - 2. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal roof panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
  - 3. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
- B. Flashing and Trim: Formed from same material as roof panels, prepainted with coil coating, minimum 0.018 inch thick. Provide flashing and trim as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal roof panels.

## 2.7 FABRICATION

- A. Fabricate and finish metal roof panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes and as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.
- B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- C. Fabricate metal roof panel side laps with factory-installed captive gaskets or separator strips that provide a tight seal and prevent metal-to-metal contact, in a manner that will seal weathertight and minimize noise from movements within panel assembly.
- D. Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of item indicated.

**PART 3 - EXECUTION****3.1 PREPARATION**

- A. Miscellaneous Framing: Install subpurlins, eave angles, furring, and other miscellaneous roof panel support members and anchorage according to metal roof panel manufacturer's written instructions.

**3.2 UNDERLAYMENT INSTALLATION**

- A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated on Drawings, wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Roll laps with roller. Cover underlayment within 14 days.
- B. Felt Underlayment: Apply at locations indicated on Drawings, in shingle fashion to shed water, and with lapped joints of not less than 2 inches.
- C. Apply slip sheet over underlayment before installing metal roof panels.
- D. Install flashings to cover underlayment to comply with requirements specified in Division 07 Section "Sheet Metal Flashing and Trim."

**3.3 METAL ROOF PANEL INSTALLATION**

- A. Standing-Seam Metal Roof Panels: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended by manufacturer.
  - 1. Install clips to supports with self-tapping fasteners.
  - 2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
  - 3. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
  - 4. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.

**3.4 ACCESSORY INSTALLATION**

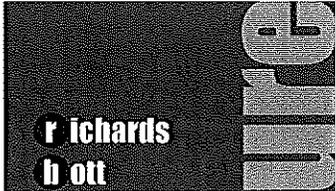
- A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
  - 1. Install components required for a complete metal roof panel assembly including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

2. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
3. Provide elbows at base of downspouts to direct water away from building.

### **3.5 CLEANING**

- A. Remove temporary protective coverings and strippable films, if any, as metal roof panels are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of metal roof panel installation, clean finished surfaces as recommended by metal roof panel manufacturer. Maintain in a clean condition during construction.

**END OF SECTION 07 4113**



# Utah State Liquor Store Remodel - Brigham City

Division 9 - Finishes:  
09 9113 exterior painting

## Finishes

**SECTION 09 9113 - EXTERIOR PAINTING****PART 1 - GENERAL****1.1 SUMMARY**

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:

1. Steel.

**1.2 SUBMITTALS**

- A. Product Data: For each type of product indicated.
- B. Samples: For each finish and for each color and texture required.
- C. Product List: Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

**1.3 QUALITY ASSURANCE**

- A. MPI Standards:
1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
  2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
    - b. Other Items: Architect will designate items or areas required.
  2. Final approval of color selections will be based on benchmark samples.
    - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Architect at no added cost to Owner.

**PART 2 - PRODUCTS****2.1 PAINT, GENERAL**

- A. Material Compatibility:
  - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Colors: As selected by Architect from manufacturer's full range.

**2.2 METAL PRIMERS**

- A. Alkyd Anticorrosive Metal Primer: MPI #79.

**2.3 EXTERIOR LATEX PAINTS**

- A. Exterior Latex (Semigloss): MPI #11 (Gloss Level 5).

**PART 3 - EXECUTION****3.1 EXAMINATION**

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
  - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

**3.2 PREPARATION AND APPLICATION**

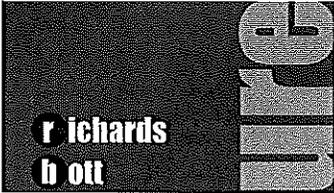
- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- D. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### **3.3 EXTERIOR PAINTING SCHEDULE**

- A. Steel Substrates:
  1. Alkyd System: MPI EXT 5.1D.
    - a. Prime Coat: Alkyd anticorrosive metal primer.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel (gloss).

**END OF SECTION 09 9113**



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# Utah State Liquor Store Remodel - Brigham City

Division 11 - Equipment  
11 1600 loading dock equipment

## Equipment

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Division **11**

**SECTION 11 1600 - LOADING DOCK EQUIPMENT****PART 1 - GENERAL****1.1 SUMMARY****A. Section Includes:**

1. Dock (scissor) lift, electro-hydraulic (New Hurricane, UT Liquor Store).

**B. Related Documents**

1. The Contract Documents, as defined in Section 01 1000 – Summary, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other Documents.

**1.2 SUBMITTALS****A. Section 01 3300 – Submittal Procedures: Procedures for submittals.****1. Product Data:**

- a. Levelers and Lifts: Indicate materials and finish, installation details, roughing-in measurements, and operation of unit.
- b. Dock seals: Indicate unit dimensions, method of anchorage, and details of construction.

2. Shop Drawings: Indicate required opening dimensions, tolerances of opening dimensions, placement dimensions, and perimeter conditions of construction.

**3. Assurance/Control Submittals:**

- a. Test Reports: Report from approved Independent Testing Agency indicating compliance of Dock Lift with requirements of ANSI MH14.1.
- b. Certificates: Manufacturer's certificate that products meet or exceed specified requirements.
- c. Qualification Documentation: Submit documentation of experience indicating compliance with specified qualification requirements.

**1.3 QUALITY ASSURANCE****A. Dock leveler and dock (scissor) lift: Conform to requirements of ANSI MH14.1.****B. Qualifications:**

1. Manufacturer: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
2. Installer: Company specializing in performing the Work of this section with minimum 5 years documented experience.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 6000 – Product Requirements: Transport, handle, store, and protect products.

## PART 2 - PRODUCTS

### 2.1 ELECTRO-HYDRAULIC DOCK (SCISSOR) LIFTS

- A. Manufacturers: Subject to compliance with project requirements, manufacturer's offering products which may be incorporated in the work include the following:
1. Kelley Company Inc., Milwaukee, WI, 800-558-6960 (contact Kevin Gale @HOJ Engineering, 801-266-8881).
  2. SERCO, Carrollton, TX, 972-466-0707.
  3. Section 01 6000 – Product Requirements: Product options and substitutions. Substitutions meeting specifications: Permitted.
- B. Description:
1. Type: Provide stationary single-scissor-type hydraulic dock lift designed for permanent, recessed installation in a preformed concrete pit at location indicated.
  2. Rated Capacity: Provide lifting capacity of not less than 10,000 lb. with 6,000 lb. axle load at ends and 400 lb. axle loads at sides.
  3. Vertical Travel: Provide maximum vertical travel of 60 inches from a lowered height of 14 inches for a raised height of 74 inches.
  4. Deck Length: 10'-0" x 7'-0", non-skid safety treat deck plate.
  5. Hinged Bridge: Provide hinged, throw-over bridge, heavy duty piano-type hinge welded to toe guard at end of platform. Provide bridge complete with heavy-duty lifting chains. Chamfer edge of bridge to minimize obstructing wheels of material-handling vehicles. Bridge material shall be nonskid, safety-tread steel plate, 36" long by 72", and bridge to be split spring assisted.
  6. Power Unit: Provide manufacturer's standard, self-contained, remotely located 5 hp power unit of size, type and operation needed for capacity of lift indicated. Power unit shall consist of a TEFC motor, high-pressure gear pump, valve manifold and oil reservoir. Manifold shall contain a relief valve, check valve, pressure-compensated flow control to maintain rated speed when the lift is loaded or unloaded. Provide a hydraulic velocity fuse at each cylinder to prevent the lift platform from free falling in the event of a severed hydraulic hose or broken hydraulic fitting. Provide an oil sight gauge in the reservoir to determine oil level. Provide manual lowering valves to lower lift in case of a power loss.
  7. Remote Located Control Station: Provide a weatherproof, multi-button control station of the constant-pressure type with NEMA 4x rated up and down push buttons. Controller shall consist of a magnetic motor starter with three pole-adjustable overloads and 115-VAC control transformer with a fused secondary prewired to terminal strips and enclosed in a NEMA, type 12 box. Equip with manufacturer's standard, adjustable upper-travel-limit switch. Provide a flashing light and adjustable audible alarm mounted on the power pack.
  8. Safety Devices: Provide manufacturer's standard and original safety devices to include two (2) removable handrails on two sides of the platform with a single

removable chain across each end. Handrails shall be 42" high with a midrail and a 4-inch high kick plate at the bottom. Mount the rail sockets flush with the platform surface. Provide a manufacturer's standard safety maintenance leg and standard toe protection along the entire unprotected sides of the lift. Toe guards shall have yellow and black stripes to comply with ANSI Z535.1.

9. Fully insulated deck with brush weather seal.
10. Warranty: 10 year parts and labor.
11. Dock (scissor) lift supplier to verify and ensure that the operating voltage and other electrical features of the lift is compatible with the voltage and other electrical systems shown for the lift on the architectural and electrical drawings.

## 2.2 HYDRAULIC DOCK LEVELERS

- A. Manufacturers: Subject to compliance with project requirements, manufacturer's offering products which may be incorporated in the work include the following:
  1. Blue Giant Corporation, Pell City, AL (800) 872-2583.
  2. Kelley Company Incorporated Milwaukee, WI (800) 558-6960.
  3. Pentalift Equipment Corporation, Buffalo, NY (519) 763-3625.
  4. Rite-Hite Corporation, Milwaukee, WI (800) 456-0600.
  5. Section 01 6000 – Product Requirements: Product options and substitutions. Substitutions: Permitted.
- B. Models:
  1. Blue Giant: A 6810.
  2. Kelley.
  3. Pentalift: HD 610.
  4. Rite-Hite: HD 1600.
- C. Description:
  1. Operation: Electro-hydraulic.
  2. Deck Length: 10'-0" (with additional 16" to 18" lip).
  3. Deck Width: 6'-0".
  4. Operating Range: 12 inches above to 10 inches below dock level.
  5. Capacity: 20,000 pounds (minimum).
  6. Wall mounted motor control unit with emergency stop button.
  7. Fully insulated deck with brush weather seal.
  8. Telescoping toe guards.
  9. Electrical interlock so that leveler will not operate until dock door is in the open position.
  10. Maintenance struts.
  11. Warranty: 10 year parts and labor.
  12. Dock leveler supplier to verify and ensure that the operating voltage and other electrical features of the leveler is compatible with the voltage and other electrical systems shown for the leveler on the electrical drawings.

**PART 3 - EXECUTION****3.1 EXAMINATION**

- A. Section 01 7000 – Execution Requirements: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive work.
- C. Report in writing to the Architect any prevailing conditions that will adversely affect satisfactory execution of the work of this section. Do not proceed with work until unsatisfactory conditions have been corrected.
- D. By beginning work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the Owner.

**3.2 INSTALLATION**

- A. Install dock seal in accordance with manufacturer's instructions.
- B. Install dock leveler or scissor lift in prepared openings in accordance with manufacturer's instructions.
- C. Set square and level.
- D. Anchor units securely, flush with dock. Weld back of leveling dock to pit frame. Touch-up weld with primer.

**3.3 ADJUSTING**

- A. Adjust installed unit for smooth and balanced operation.

**END OF SECTION 11 1600**

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## Utah State Liquor Store Remodel - Brigham City

### Division 26 - Electrical

26 0501 common electrical requirements  
26 0519 line-voltage conductors and cables  
26 0520 heating cables  
26 0533 raceway and boxes for electrical systems  
26 5600 exterior lighting

## Electrical

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Division **26**

**SECTION 26 0501 - COMMON ELECTRICAL REQUIREMENTS****PART 1 - GENERAL****1.1 SUMMARY**

- A. Includes But Not Limited To:
  - 1. General electrical system requirements and procedures.
  - 2. Perform excavating and backfilling work required by work of this Division as described in Contract Documents.
  - 3. Make electrical connections to equipment provided under other Sections.
- B. Related Requirements:
  - 1. Section 31 2323: Criteria for performance of backfilling.

**1.2 SUBMITTALS**

- A. Action Submittals:
  - 1. Product Data:
    - a. Provide following information for each item of equipment:
      - 1) Catalog Sheets.
      - 2) Assembly details or dimension drawings.
      - 3) Installation instructions.
      - 4) Manufacturer's name and catalog number.
      - 5) Name of local supplier.
    - b. Furnish such information for following equipment:
      - 1) Section 26 5600: Exterior lighting fixtures, poles, and associated control equipment.
    - c. Do not purchase equipment before approval of product data.
  - 2. Shop Drawings:
    - a. Indicate precise equipment to be used, including all options specified. Indicate wording and format of nameplates where applicable. Submit in three-ring binder with hard cover.

**1.3 QUALITY ASSURANCE**

- A. Requirements of Regulatory Agencies:
  - 1. NEC and local ordinances and regulations shall govern unless more stringent requirements are specified.
  - 2. Material and equipment provided shall meet standards of NEMA or UL and bear their label wherever standards have been established and label service is available.

**PART 2 - PRODUCTS – Not Used****PART 3 - EXECUTION****3.1 EXAMINATION**

- A. Confirm dimensions, ratings, and specifications of equipment to be installed and coordinate these with site dimensions and with other Sections.

**3.2 INSTALLATION**

## A. General:

- 1. Locations of electrical equipment shown on Drawings are approximate only. Field verify actual locations for proper installation.
- 2. Coordinate electrical equipment locations and conduit runs with those providing equipment to be served before installation or rough-in.
  - a. Notify Architect of conflicts before beginning work.
  - b. Coordinate locations of power and lighting outlets in mechanical rooms and other areas with mechanical equipment, piping, ductwork, cabinets, etc, so they will be readily accessible and functional.
- 3. Work related to other trades which is required under this Division, such as cutting and patching, trenching, and backfilling, shall be performed according to standards specified in applicable Sections.

**END OF SECTION 26 0501**

**SECTION 26 0519 - LINE-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES****PART 1 - GENERAL****1.1 SUMMARY**

- A. Includes But Not Limited To:
  - 1. Quality of conductors used on Project except as excluded below.
- B. Related Requirements:
  - 1. Section 23 0933: Conductors and cables for temperature control system.
  - 2. Section 26 0501: Common Electrical Requirements.

**1.2 REFERENCES**

- A. Definitions:
  - 1. Line Voltage: Over 70 Volts.

**PART 2 - PRODUCTS****2.1 SYSTEMS**

- A. Line Voltage Conductors:
  - 1. Copper with AWG sizes as shown:
    - a. Minimum size shall be No. 12 except where specified otherwise.
    - b. Conductor size No. 8 and larger shall be stranded.
  - 2. Insulation:
    - a. Standard Conductor Size No. 10 And Smaller: 600V type THWN or XHHW (75 deg C).
    - b. Standard Conductor Size No. 8 And Larger: 600V Type THW, THWN, or XHHW (75 deg C).
    - c. Higher temperature insulation as required by NEC or local codes.
  - 3. Colors:
    - a. 208Y / 120 V System:
      - 1) Black: Phase A.
      - 2) Red: Phase B.
      - 3) Blue: Phase C.
      - 4) Green: Ground.
      - 5) White: Neutral.

- b. Conductors size No. 10 and smaller shall be colored full length. Tagging or other methods for coding of conductors size No. 10 and smaller not allowed.
- c. For feeder conductors larger than No. 10 at pull boxes, gutters, and panels, use painted or taped band or color tag color-coded as specified above.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

##### **A. General:**

1. Conductors and cables shall be continuous from outlet to outlet.
2. Do not use direct burial cable.

##### **B. Line Voltage Conductors:**

1. Install conductors in raceway where indicated on Drawings. Run conductors of different voltage systems in separate conduits.
2. Route circuits at own discretion, however, circuiting shall be as shown in Panel Schedules. Group circuit homeruns to panels as shown on Drawings.
3. Neutrals:
  - a. On three-phase, 4-wire systems, do not use common neutral for more than three circuits.
  - b. On single-phase, 3-wire systems, do not use common neutral for more than two circuits.
  - c. Run separate neutrals for each circuit where specifically noted on Drawings.
  - d. Where common neutral is run for two or three home run circuits, connect phase conductors to breakers in panel which are attached to separate phase legs so neutral conductors will carry only unbalanced current. Neutral conductors shall be of same size as phase conductors unless specifically noted otherwise.
4. Pulling Conductors:
  - a. Do not pull conductors into conduit until raceway system is complete and cabinets and outlet boxes are free of foreign matter and moisture.
  - b. Do not use heavy mechanical means for pulling conductors.
  - c. Use only listed wire pulling lubricants.

##### **C. Line Voltage Cables:**

1. Route circuits at own discretion, however, circuiting and numbering shall be as shown in Panel Schedules.
2. Support cables using approved staples, cable ties, straps, hangers, or similar fittings, spaced as required.
3. Where installing in framing, do not bore holes in joists or beams outside center 1/3 of member depth or within 24 inches of bearing points. Do not bore holes in vertical framing members outside center 1/3 of member width. Holes shall be one inch diameter maximum.
4. Conceal cables within ceilings and walls of finished areas. Cables may be exposed in unfinished areas but not run on floors of mechanical equipment spaces or in such a way that they obstruct access to, operation of, or servicing of equipment.
5. Install exposed cables parallel to or at right angles to building structure lines.

6. Keep cables 6 inches minimum from hot water pipes.
7. Do not support cables from mechanical ducts or duct supports without Architect's written approval.
8. Prohibited procedures:
  - a. Boring holes for installation of cables in vertical truss members.
  - b. Notching of structural members for installation of cables.

**END OF SECTION – 26 0519**

**SECTION 26 0520 - HEATING CABLES****PART 1 - GENERAL****1.1 SUMMARY**

A. Includes But Not Limited To:

1. Furnish and install heating cable system for rain gutters and roof eaves as described in Contract Documents.

**1.2 SUBMITTALS**

A. Action Submittals:

1. Shop Drawings: Show layout spacing and cable sizing required by Cable Manufacturer for site conditions. Provide watts per lin ft at required volts AC of cable to be used.

**PART 2 - PRODUCTS****2.1 SYSTEMS**

A. Manufacturers:

1. Manufacturer List:

- a. Bylin Engineered Systems, El Dorado Hills, CA [www.bylinusa.com](http://www.bylinusa.com).
- b. Chromalox Precision Heat & Control, Pittsburgh, PA [www.chromalox.com](http://www.chromalox.com).
- c. Easy Heat, East Granby, CT [www.easyheat.com](http://www.easyheat.com).
- d. Nelson Heat Tracing Systems, East Granby, CT [www.nelsonheaters.com](http://www.nelsonheaters.com).
- e. Pass & Seymour, Syracuse, NY [www.passandseymour.com](http://www.passandseymour.com).
- f. Raychem Corporation, Menlo Park, CA [www.tycothermal.com](http://www.tycothermal.com).
- g. Square D Co, Palatine, IL [www.us.squared.com](http://www.us.squared.com).
- h. Technitrace Inc, Murray, UT [www.technitrace.com](http://www.technitrace.com).
- i. Thermon Manufacturing Co, San Marcos, TX [www.thermon.com](http://www.thermon.com).

B. Materials:

1. Rain Gutter Heaters:

a. Cable:

- 1) Class One Quality Standard: Chromalox TW6-CR.

b. Temperature And Moisture Sensitive Controller:

- 1) Design Standard: Chromalox GIT-3B.

- c. Contactor:
  - 1) Category Four Approved Products. See Section 01 6200 for definitions of Categories.
    - a) Easy Heat: PC series.
    - b) Square 'D': Class 8502.
- d. Pilot Light:
  - 1) Include plate with engraved text, 'ROOF HEATING CABLE.'
  - 2) Class Two Quality Standard: Pass & Seymour 2151 Red.
- e. Factory prepared, UL / ULC recognized splice and termination kits by Cable Manufacturer.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Rain Gutter Heaters:
  - 1. Install moisture probe for controller in rain gutter.
  - 2. Install pilot light in corridor or foyer to indicate when cables are operating.
  - 3. Terminate raceway on exterior of building at heat cable location with weatherproof junction box.

**END OF SECTION 26 0520**

**SECTION 26 0533 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS****PART 1 - GENERAL****1.1 SUMMARY**

## A. Includes But Not Limited To:

1. Quality of material and installation procedures for raceway, boxes, and fittings used on Project but furnished under other Divisions.
2. Furnish and install raceway, conduit, and boxes used on Project not specified to be installed under other Divisions.

## B. Related Requirements:

1. Section 26 0501: General Electrical Requirements.

**PART 2 - PRODUCTS****2.1 SYSTEM**

## A. Manufacturers:

## 1. Manufacturer Contact List:

- a. Cooper B-Line, Highland, IL [www.b-line.com](http://www.b-line.com).
- b. Hubbell Incorporated, Milford, CT [www.hubbell-wiring.com](http://www.hubbell-wiring.com) or Hubbell Canada Inc, Pickering, ON (905) 839-4332.
- c. Square D, Palatine, IL [www.squared.com](http://www.squared.com).
- d. Steel City, Div Thomas & Betts, Memphis, TN [www.tnb.com](http://www.tnb.com) or Thomas & Betts Ltd, Iberville, PQ (450) 347-5318.
- e. Thomas & Betts, Memphis, TN [www.tnb.com](http://www.tnb.com).
- f. Walker Systems Inc, Williamstown, WV (800) 240-2601 or Walker Systems Inc / Wiremold Canada Inc, Fergus, ON (519) 843-4332.
- g. Wiremold Co, West Hartford, CT [www.wiremold.com](http://www.wiremold.com).

## B. Materials:

## 1. Raceway And Conduit:

## a. Sizes:

- 1) 3/4 inch for exterior use, unless indicated otherwise.

## b. Types: Usage of each type is restricted as specified below by product.

- 1) Galvanized rigid steel or galvanized intermediate metal conduit (IMC) is allowed for use in all areas. Where in contact with earth or concrete, wrap buried galvanized rigid steel and galvanized IMC conduit and fittings completely with vinyl tape.

2. Raceway And Conduit Fittings:
  - a. Rigid Steel Conduit And IMC: Threaded and designed for conduit use.
3. Outlet Boxes:
  - a. Galvanized steel of proper size and shape are acceptable for all systems. Where metal boxes are used, provide following:
    - 1) Provide metal supports and other accessories for installation of each box.
    - 2) Equip ceiling and bracket fixture boxes with fixture studs where required.
    - 3) Equip outlets in plastered, paneled, and furred finishes with plaster rings and extensions to bring box flush with finish surface.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Confirm dimensions, ratings, and specifications of materials to be installed and coordinate these with site dimensions and with other Sections.

#### **3.2 INSTALLATION**

- A. Interface With Other Work:
  1. Before rough-in, verify locations of boxes with work of other trades to insure that they are properly located for purpose intended.
  2. Install pull wires in raceways installed under this Section where conductors or cables are to be installed under other Divisions.
- B. Conduit And Raceway:
  1. Make no more than four quarter bends, 360 degrees total, in any conduit run between outlet and outlet, fitting and fitting, or outlet and fitting.
    - a. Make bends and offsets so conduit is not injured and internal diameter of conduit is not effectively reduced.
    - b. Radius of curve shall be at least minimum indicated by NEC.
  2. Cut conduit smooth and square with run and ream to remove rough edges. Cap raceway ends during construction. Clean or replace raceway in which water or foreign matter have accumulated.
  3. Underground Raceway And Conduit:
    - a. Bury underground raceway installed outside building 24 inches deep minimum.
  4. Conduit And Raceway Support:
    - a. Securely support raceway with approved straps, clamps, or hangers, spaced as required.

- b. Do not support from mechanical ducts or duct supports without Architect's written approval. Securely mount raceway supports, boxes, and cabinets in an approved manner by:
  - 1) Expansion shields in concrete or solid masonry.
  - 2) Toggle bolts on hollow masonry units.
  - 3) Wood screws on wood.
  - 4) Metal screws on metal.

C. Boxes:

- 1. Boxes shall be accessible and installed with approved cover.
- 2. Do not locate device boxes that are on opposite sides of framed walls in the same stud space. In other wall construction, do not install boxes back to back.
- 3. Locate boxes so pipes, ducts, or other items do not obstruct outlets.
- 4. Install outlets flush with finished surface and level and plumb.
- 5. Support switch boxes larger than two-gang with side brackets and steel bar hangers in framed walls.
- 6. At time of substantial completion, install blank plates on uncovered outlet boxes that are for future use.
- 7. Location:
  - a. Install boxes at door locations on latch side of door, unless explicitly shown otherwise on Drawings. Verify door swings shown on electrical drawings with architectural drawings, and report discrepancies to Architect before rough-in. Distance of box from jamb shall be within 6 inches of door jamb.
  - b. Properly center boxes located in walls with respect to doors, panels, furring, trim and consistent with architectural details. Where two or more outlets occur, space them uniformly and in straight lines with each other, if possible.

**END OF SECTION 26 0533**

**SECTION 26 5600 - EXTERIOR LIGHTING****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes:
  - 1. Exterior luminaires with lamps and ballasts.

**1.2 SUBMITTALS**

- A. Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, and finishes.
- B. Shop Drawings: Anchor-bolt templates keyed to specific poles and certified by manufacturer.

**1.3 QUALITY ASSURANCE**

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with IEEE C2, "National Electrical Safety Code."
- C. Comply with NFPA 70.

**PART 2 - PRODUCTS****2.1 MANUFACTURERS**

- A. Products: Subject to compliance with requirements, provide product indicated on Drawings.

**2.2 GENERAL REQUIREMENTS FOR LUMINAIRES**

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.
  - 1. LER Tests Incandescent Fixtures: Where LER is specified, test according to NEMA LE 5A.
  - 2. LER Tests HID Fixtures: Where LER is specified, test according to NEMA LE 5B.

- B. Lateral Light Distribution Patterns: Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.
- D. Sheet Metal Components: Corrosion-resistant aluminum unless otherwise indicated. Form and support to prevent warping and sagging.
- E. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- F. Exposed Hardware Material: Stainless steel.
- G. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- H. Light Shields: Metal baffles, factory installed and field adjustable, arranged to block light distribution to indicated portion of normally illuminated area or field.
- I. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:
  - 1. White Surfaces: 85 percent.
  - 2. Specular Surfaces: 83 percent.
  - 3. Diffusing Specular Surfaces: 75 percent.
- J. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- K. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.
- L. Factory-Applied Finish for Steel Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
  - 1. Surface Preparation: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning," to remove dirt, oil, grease, and other contaminants that could impair paint bond. Grind welds and polish surfaces to a smooth, even finish. Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning," or SSPC-SP 8, "Pickling."
  - 2. Exterior Surfaces: Manufacturer's standard finish consisting of one or more coats of primer and two finish coats of high-gloss, high-build polyurethane enamel.
    - a. Color: As selected from manufacturer's standard catalog of colors.
- M. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and ballasts. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.
  - 1. Label shall include the following lamp and ballast characteristics:

- a. "USES ONLY" and include specific lamp type.
- b. Lamp tube configuration (twin, quad, triple), base type, and nominal wattage for compact fluorescent luminaires.
- c. Lamp type, wattage, bulb type (ED17, BD56, etc.) and coating (clear or coated) for HID luminaires.
- d. Start type (preheat, rapid start, instant start) compact fluorescent luminaires.
- e. ANSI ballast type (M98, M57, etc.) for HID luminaires.
- f. CCT and CRI for all luminaires.

### **2.3 FLUORESCENT BALLASTS AND LAMPS**

- A. Ballasts for Low-Temperature Environments:
  1. Temperatures 0 Deg F and Higher: Electronic type rated for 0 deg F starting and operating temperature with indicated lamp types.
- B. Ballast Characteristics:
  1. Power Factor: 90 percent, minimum.
  2. Sound Rating: Class A.
  3. Total Harmonic Distortion Rating: Less than 10 percent.
  4. Electromagnetic Ballasts: Comply with ANSI C82.1, energy-saving, high power factor, Class P, automatic-reset thermal protection.
  5. Case Temperature Compact Lamp Ballasts: 65 Deg C, maximum.
  6. Transient-Voltage Protection: Comply with IEEE C62.41.1 and IEEE C62.41.2, Category A or better.
- C. Low-Temperature Lamp Capability: Rated for reliable starting and operation with ballast provided at temperatures 0 deg F and higher.

## **PART 3 - EXECUTION**

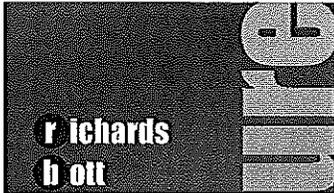
### **3.1 LUMINAIRE INSTALLATION**

- A. Install lamps in each luminaire.
- B. Fasten luminaire to indicated structural supports.
  1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.

### **3.2 CORROSION PREVENTION**

- A. Steel Conduits: Comply with Division 26 Section "Raceway and Boxes for Electrical Systems." In concrete foundations, wrap conduit with 0.010-inch- thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

**END OF SECTION 26 5600**



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# Utah State Liquor Store Remodel - Brigham City

Division 31 - Earthwork  
31 2323 Fill

## Earthwork

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Division **31**

**SECTION 31 2323 - FILL****PART 1 - GENERAL****1.1 SUMMARY**

## A. Includes But Not Limited To:

1. Perform Project backfilling and compacting as described in Contract Documents.

## B. Related Requirements:

1. Performance of backfilling and compacting inside and outside of building required for electrical work is responsibility of respective Section doing work unless arranged differently by Contractor.

**1.2 REFERENCES**

## A. Reference Standards:

## 1. ASTM International:

- a. ASTM D 1557-02, 'Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.'
- b. ASTM D 2216-98, 'Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.'
- c. ASTM D 2487-00, 'Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).'
- d. ASTM D 2922-05, 'Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).'
- e. ASTM D 3017-05, 'Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).'

## B. Definitions:

1. Relative Compaction: Ratio of field dry density as determined by ASTM D 2922 and ASTM D 3017 or 2216, and laboratory maximum dry density as determined by ASTM D 1557.

**PART 2 - PRODUCTS****2.1 MATERIALS**

## A. Site Material:

1. The existing excavated material is not suitable for use as structural fill.

## B. Excavatable Slurry Fill / Backfill:

1. Contain maximum of 94 lbs of cement per yard of slurry fill / backfill.
2. Minimum stable air content of 20 percent, Darafill dosage as necessary.

3. Maximum water content of 36 gallons per yard of backfill.
4. Maximum compressive strength of 150 psi at 28 days.
5. Type Two Acceptable Products:
  - a. Darafill by W R Grace & Co, Cambridge, MA [www.na.graceconstruction.com](http://www.na.graceconstruction.com).
  - b. Equal as approved by Architect before use. See Section 01 6200.

C. Engineered Fill:

1. Under Footing: Non-expansive granular soil with less than 35 percent passing the No. 200 sieve liquid limit less than 30 percent, and no stone over 4 inches diameter.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Before placing fill, base, or finish work, prepare sub-grade as follows:

1. Do not place fill or base over frozen sub-grade.
2. Under Concrete Site Elements: After removal of top soil, proof-roll and compact sub-grade. If soft areas are encountered, stop work and notify Architect.

### 3.2 PERFORMANCE

A. Fill / Backfill:

1. General:
  - a. Site Utilities:
    - 1) Under Concrete Site Elements: Extend excavatable slurry fill / backfill to elevation of subgrade. Do not place base material until excavatable slurry fill / backfill has cured 72 hours.
  - b. Do not use puddling or jetting to consolidate fill areas.
2. Compacting:
  - a. Engineered Fill:
    - 1) Under Footings: Place fill in 8 inch maximum layers, moisture conditions to within 2 percent of optimum moisture content, and mechanically tamp to 95 percent minimum of maximum density as established by ASTM D 1557.

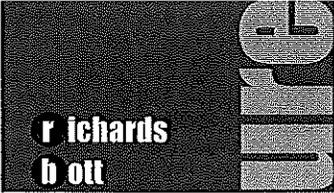
### 3.3 REPAIR / RESTORATION

- A. Repair damage to other portions of the Work resulting from work of this Section at no additional cost to Owner. On new work, arrange for damage to be repaired by original installer.

**3.4 CLEANING**

- A. Debris and material not necessary for Project are property of Contractor and are to be removed before completion of Project. However, if material necessary for Project is hauled away, replace with specified fill / backfill material.

**END OF SECTION 31 2323**



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# Utah State Liquor Store Remodel - Brigham City

Division 32 - Exterior Improvements  
32 1216 asphalt paving

## Exterior Improvements

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Division **32**

**SECTION 32 1216 - ASPHALT PAVING****PART 1 - GENERAL****1.1 SUMMARY**

- A. Section Includes:
  - 1. Hot-mix asphalt patching.

**1.2 SUBMITTALS**

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
  - 1. Job-Mix Designs: For each job mix proposed for the Work.
- B. Material Certificates: For each paving material, from manufacturer.

**1.3 PROJECT CONDITIONS**

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
  - 1. Tack Coat: Minimum surface temperature of 60 deg F.
  - 2. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
  - 3. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

**PART 2 - PRODUCTS****2.1 AGGREGATES**

- A. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.

**2.2 MIXES**

- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction; designed according to procedures in ASTM D 3381; and complying with the following requirements:
  - 1. Base Course: AC10 Viscosity grade.

a.	1 mch	100
b.	¾ inch	85-100
c.	No. 4	45-60
d.	No. 10	30-50
e.	No. 200	5-10 (not plastic)

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Proceed with paving only after unsatisfactory conditions have been corrected.

#### **3.2 PATCHING**

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd..
1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C. Patching: Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

#### **3.3 SURFACE PREPARATION**

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd..
1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

#### **3.4 HOT-MIX ASPHALT PLACING**

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that

prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

1. Spread mix at minimum temperature of 250 deg F.
  2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

### **3.5 COMPACTION**

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
1. Complete compaction before mix temperature cools to 185 deg F.
- B. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

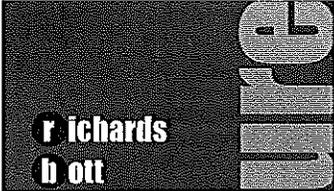
### **3.6 INSTALLATION TOLERANCES**

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
1. Base Course: Plus or minus 1/2 inch.
  2. Surface Course: Plus 1/4 inch, no minus.

### **3.7 DISPOSAL**

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

**END OF SECTION 32 1216**



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# Utah State Liquor Store Remodel - Brigham City

**Appendix:**  
Special Inspection and Testing Under the Provisions of  
IBC 1704 and for Miscellaneous areas

## Appendix

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## SPECIAL INSPECTION AND TESTING UNDER THE PROVISIONS OF IBC 1704 AND FOR MISCELLANEOUS AREAS

Indicate required Special inspections for project by checking the appropriate boxes and provide specific instructions as to the inspection requirements and the expectations of the architect, engineer and owner:

### FABRICATORS (IBC 1704.2)

<input checked="" type="checkbox"/> Approved Fabricator	Fabricators Name: _____
<input type="checkbox"/> Unapproved Fabricator	Fabricators Name: _____
In-plant inspections	
<input type="checkbox"/> Steel Construction	<input type="checkbox"/> Welding
	<input type="checkbox"/> Details

### STEEL (IBC 1704.3)

Item	Detailed Instructions and Frequencies	
High Strength Bolting(1704.3.3)	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic
WELDING (1704.3.1)		
Details (1704.3.2)		
Complete & partial penetration groove welds	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic
Multipass fillet welds	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic
Single-pass fillet welds > 5/16"	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic
Single-pass fillet welds ≤ 5/16"	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic
Floor & roof deck welds	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic
REINFORCEMENT STEEL	<input checked="" type="checkbox"/> Continuous	
Verification of weldability	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic
Shear wall and shear reinforcement	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic
Other reinforcement	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic
Steel frame joint details	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic

### CONCRETE CONSTRUCTION (IBC 1704.4)

Item	Detailed Instructions and Frequencies		
Materials (1704.4.1)	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Steel placement	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Steel welding	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Bolts prior & during placement	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Use of required design mix	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Concrete sampling for strength test, slump, air content, and temperature of concrete	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Concrete & shotcrete placement	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Curing temperature and techniques	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Pre-stressed concrete	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Pre-cast concrete	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Posttensioned concrete	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Form work	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	

MASONRY CONSTRUCTION (IBC 1704.5)

Item	Detailed Instructions and Frequencies		
<b>As masonry construction begins:</b>			
Site prepared mortar	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Construction of mortar joints	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Location of reinforcement, connectors, pre-stressing tendons and anchorages	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Pre-stressing technique	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Grade and size of pre-stressing tendons and anchorages	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
<b>Inspection program verify:</b>			
Size and location of structural elements	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Type, size and location of anchors	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Size, grade and type of reinforcement	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Welding of reinforcement	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Cold and hot weather protection	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Application and measurement of pre-stressing force	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
<b>Prior to grouting verify</b>			
Clean grout space	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Placement of reinforcement	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Grout mix	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Mortar joints	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Grout placement	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Grout and mortar specimens and prisms	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Construction and submittal compliance verification	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Empirical masonry – Cat. I-III (1708.1.1)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Empirical masonry – Cat. IV (1708.1.1)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Engineered masonry – Cat. I-III 1708.1.1	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Engineered masonry – Cat. IV (1708.1.1)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Engineering & pre-stressing steel (1708.3)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Structural steel (1708.4)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Qualification of mechanical & electrical equipment (1708.5)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Seismically isolated structures (1708.6)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Testing for seismic resistance is	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

WOOD CONSTRUCTION (IBC 1704.6)

Item	Detailed Instructions and Frequencies		
Prefabricated elements & assembly	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

SOILS CONSTRUCTION (IBC 1704.7)

Item	Detailed Instructions and Frequencies		
Site preparation	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Structural fill material	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Structural fill lift thickness	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Structural fill soil densities	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
Backfill soils materials	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Backfill soil densities	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	

PILE FOUNDATIONS (IBC 1704.8)

Item	Detailed Instructions and Frequencies		
Observe driving operation and reporting	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Verify placement & installation data	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

PIER FOUNDATIONS (IBC 1704.9)

Item	Detailed Instructions and Frequencies		
Observe drilling operation and reporting	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Verify placement & installation data	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

SPRAYED FIRE-RESISTANT MATERIALS (IBC 1704.10)

Item	Detailed Instructions and Frequencies		
Structural member surface conditions	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Material application	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Material thickness	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Material density	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Bonding strength	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC 1704.11)

Item	Detailed Instructions and Frequencies		
Material and installation	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (IBC 1704.12)

Item	Detailed Instructions and Frequencies		
Material and installation	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

ALTERNATIVE CONSTRUCTION METHODS OR MATERIALS (IBC 1704.13)

Item	Detailed Instructions and Frequencies		
Material and installation	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

EPOXY (IBC 1704.13)

Item	Detailed Instructions and Frequencies		
Material and installation (specify locations)	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	

SMOKE CONTROL (IBC 1704.14)

Item	Detailed Instructions and Frequencies		
Material	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

Installation	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
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Special inspection for seismic resistance (IBC 1707)

Item	Detailed Instructions and Frequencies		
Structural Steel (1707.2)	<input type="checkbox"/> Continuous	<input checked="" type="checkbox"/> Periodic	
Structural Wood (1707.3)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Cold-formed steel framing (1707.4)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Pier foundations (1707.5)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Storage racks & access floors (1707.6)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Architectural components (1707.7)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Mechanical & electrical items (1707.8)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Designated systems verification (1707.9)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Seismic isolation systems (1707.10)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

MISCELLANEOUS AREAS

Detailed Instructions and Frequencies

These inspections are recommended by the Architect/Engineer and approved by DFCM.

Suspended Ceiling Grid Clips	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Suspended Ceiling wire spacing (Seismic)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Soils backfill (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Soils for curb and gutter (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Soils for parking lots (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Soils for utility trench backfill	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Reinforcement for interior slab on grade (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Concrete testing for interior slab on grade (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Masonry Veneer (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Asphalt inspection (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Asphalt testing (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Inspection of seismic resistance (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Steam and water line welding (specify locations and frequency)	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Seismic supports for duct work and sealing of joints for duct work	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A

Seismic supports for electrical raceways, cable trays and lights	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Seismic supports for plumbing lines including gas, water and steam and condensation	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
Seismic bracing for mechanical units both on slab and suspended	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	N/A
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Periodic	
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**Special Inspectors Shall:**

- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.1.2 and DFCM standards;
- Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hrs. of inspections;
- A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the drawings, specifications and applicable codes. IBC 1704.1.2

Updated October 8, 2009