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ADDENDUM 4 PreBid- DELTA 4

Project Name: The Houston Venue
Project Number: FRC 16001
Issued To: Bidders

Bid Set Issue Date: 04/26/2016
Addendum Date: 05/18/2016

A. NOTICE TO BIDDER

1. This addendum is issued pursuant to the Bidding Instructions as is hereby made part of the Bid Documents. This addendum serves to clarify, revise and supersede information found in the previously issued Bid Sets and Addenda. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form. Failure to do so may subject the Bidder to disqualification. A list of attachments, if any, is part of this document.

B. CLARIFICATIONS

1. Addendum #2 narrative indicates that new revised architectural drawings A1.3A and A1.3B should have been included with the Addendum #2 drawings, but they are not in the packet. Please advise. *Response: Please note that the drawings on-line have been updated and included in this addendum 4 as well.*

2. No footing details were provided for trellis entry walkway. *Response: Please refer to Structural drawings provided in this addendum.*

3. There are no sections or details for Pit / Yard retaining wall. *Response: Refer to Structural details sheet S3.1*

4. On sheet T1.1 the Owner provided chart indicates that the Fire Alarm is by the GC. Sheet SP.1 section 01100.3.A.12 indicated that Fire Alarm is NIC (Not in Contract). Please advise. *Response: Fire Alarm is to be supplied and installed by General Contractor.*

5. On sheet T1.1 the Owner provided chart indicates that the Water Softener is to be by the GC. Sheet SP.1 section 01100.3.A.14 indicates that the Water Softener is NIC, but that the installation and water lines are. Please advise. *Response: Water Softener is to be supplied and installed by contractor.*

6. On sheet A0.3, Key Note 15 calls for wood planks/slat inserts on the existing ornamental iron fence. Will there be a detail/elevation that elaborates on how this should be done? Please advise. *Response: Please note this key note has been revised. Refer to Addendum 4 drawings. No wood in*

7. On sheet A0.3 Key Note 16, 17, & 18 call for solid wood fence & gates. Will there be details/elevations/specifications for this section of fence/gates? Please advise. *Response: New solid wood fence panels on relocated / modified steel post. Match existing post dimensions. Post to be a minimum of 8'-0" high with a 8'-1" high panels, minimum. Panels to consist of 1x8 horizontal members on 2x4 horizontal members alternating on exterior / street side of steel posts. All horizontal members to have 1" overlap pattern. Top members shall align flush on top face at the 8'-1" dimension. All wood members to be stained cedar. All steel posts to be painted, black to like new conditions. Swing gate and sliding gates finish members to align with fence panel members.*

8. On sheet A0.3, Key Note 27 is calling for vegetation screen on more than one area. One area is on the existing concrete ramp wall structure, while the other is along the perimeter of the exterior stairs next to the keg cooler area. Will there be details and/or elevations for this fence at both locations? Please advise. *Response: Please note that the vegetation screen will be only be under the front entry canopy and along existing concrete drive ramp. Refer to addendum 4 drawings.*

9. On sheet A0.3, Key Note 21 & 22 are calling out for exterior chain link cage. Will there be any details/elevations/specifications for the fence at this location? How high does this fence need to be? Please advise. *Response: Please refer to Sheet A1.8 issued in Addendum 2.*

10. On sheet SP.1 the table of contents indicates a specification section 14425 –Vertical Wheelchair Lifts, but no specification section exists in the drawings. There are no other details on the wheelchair lift. Is the wheelchair lift furnished and installed by the Owner? Please advise. *Response: Refer to specification section 14425*

11. Please verify finish plan and finish schedule. There are conflicts in the concrete finish. Polished / Stained / Sealed. *Response: Refer to revised Finish Schedule and Finish Plan.*

12. Please verify Finish Legend, F-3. The finish schedule shows different. *Response: Refer to revised finish schedule.*

13. Please verify exterior vapor barrier under stained wood horizontal slating. Provide specification. *Response: Refer to specification section 07272*

14. Please clarify missing specification sections listed in 01210, 01220 and 01230. *Response: Refer to specification section 01210, 01220 and 01230.*

C. MODIFICATIONS TO PROJECT MANUAL

1. Specification Section 01210, Allowances
2. Specification Section 01220, Unit Prices
3. Specification Section 01230, Alternates
4. Specification Section 07272, Air Barriers, has been revised.
5. Specification Section 14425, Vertical Wheel Chair Lifts.

D. MODIFICATIONS TO DRAWINGS

Architectural Sheets

1. Sheet T1.1 – Updated list of contacts. Revised Sheet index.
2. Sheet A0.4A – Updated finish schedule.
3. Sheet A1.3A & A1.3B – Updated Key Notes, Floor Finish Legend. Located all of the floor sinks and drains on the Finish Plan to coordinate with Plumbing Plans. Added floor finish tags to walk-in coolers / freezers and cabanas / flex stand. Deleted Baby Changing Station from Women's 117 and Men's 118. Updated dimensioning plan. Revised Dining 113 room name. Revised finish of concrete floor in various locations.
4. Sheet A4.0 – Revised Door Type 11 to have a rough opening of 11'-0" high by 26'-2" wide.

Structural Sheets

1. Sheet S1.0 – Column sizes changed - Entry canopy foundation added- Retract. Roof foundation added.
2. Sheet S1.1 - Retract. Roof foundation added – Top of pier change - details sections added
3. Sheet S2.0 - Brace bay moved – horizontal brace added – details sections added – beam size change
4. Sheet S3.1 - Details modified – details replaced.
5. Sheet S4.0 - Detail 4 modified – details 16 & 17 were added
6. Sheet S4.2 – Added sheet to project.

Electrical Sheets

1. Sheet E1.1A – Revised power floor plan in Stage Alcove 113 per AV changes.
2. Sheet E1.2A – Revised special systems floor plan
3. Sheet E3.0 – Revised electrical schedules
4. Sheet E3.1 – Revised electrical schedules

E. ATTACHMENTS

1. Specification Sections: 01210, 01220, 01230, 07272, 14425
2. Architectural Drawing Sheets: T1.1, A0.4A, A1.3A&B, A4.0
3. Structural Drawing Sheets: S1.0, S1.1, S2.0, S3.1, S4.0, S4.2
4. Electrical Drawing Sheets: E1.1A, E1.2A, E3.0, E3.1

SECTION 01210 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.
   1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to the Contractor. Refer to the AIA 201 General conditions for additional requirements concerning allowances,
   2. All lump-sum and Owner Controlled Allowances are within the Contract Sum, and shall be covered by the bonds, insurance, overhead, profit and all other costs so that the totals represented by the Allowances are available without additional charge or cost to the Owner.

B. Types of allowances include the following:
   1. Lump-sum allowances.
   2. Owner Controlled Contingency allowances.

C. Related Sections:
   1. Division 00 Section “Proposal Form.”
   2. Division 01 Section "Unit Prices" for procedures for using unit prices.
   3. Divisions 02 through 16 Sections for items of Work covered by allowances.

1.2 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, Contractor shall advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Once the proposal is approved by the Owner, purchase products and systems selected by Architect from the designated supplier.

1.3 SUBMITTALS

A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.5 ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight, insurance, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials under allowance shall be included as part of the Contract Sum and not part of the allowance.

1.6 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a proposal based on the difference between purchase amount and the allowance.
   1. Include installation costs in purchase amount only where indicated as part of the allowance.
   2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
   3. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance 1 - In Contract, Owner Controlled, Contingency – 5% of construction costs

END OF SECTION 01210

SECTION 01220 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Sections:
1. Division 00 Section 00300 Proposal Form – Alternates and Unit Pricing.
2. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
3. Division 01 Section "Quality Requirements" for general testing and inspecting requirements

1.3 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are either increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. If the quantities of the items listed in the Schedule of Unit Prices are increased, the Unit Prices set forth by the Contractor in Section 00 41 12 shall apply to such increased quantities. Unit Prices for adjusting the Contract Sum for less work or material installation will be 95% of these amounts.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price 1 – Additional Vertical Foot of depth of 12” diameter concrete pier
B. Unit Price 2 – Additional Cubic Yard of Rock Excavation
C. Unit Price 3 – Additional Cubic Yard of Select Fill
D. Unit Price 3 – Additional Pound of Reinforcing Steel

END OF SECTION 01220

SECTION 01230 – ALTERNATES

SECTION 01230 - ALTERNATES

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by Proposers and stated on the Proposal Form for certain work defined in the Proposal Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
   1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
   2. The cost or credit for each alternate is the total addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum. Pricing for alternates may not be submitted or listed in the form of an allowance amount on the proposal form.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
   1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
   2. Cost listed for each Alternate includes cost of related coordination, modification or adjustment.

B. Notification: Immediately following award of the Contract, Contractor shall prepare and distribute to each entity or person to be involved in the performance of the Alternate Work, a notification of the status of each Alternate scheduled herein. Indicate which alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates if any.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Contractor shall be responsible for any changes in the Work affected by acceptance of Alternates. Claims for additional costs or time extensions resulting from changes to the Work as a result of the Owner's election of any or all Alternates will not be allowed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate 1 - Replace concrete curb and sidewalk at Clay Street to match new work at other three sides of project property
B. Alternate 2 - Delete retractable roof over outdoor concert area (steel structure to remain in project scope)
C. Alternate 3 - Delete two (2) freestanding steel structure and wood decked cabanas adjacent to perimeter fence

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. This Specification shall be read as a whole by all parties concerned. Each Section may contain more or less the complete Work of any trade. The Contractor is solely responsible to make clear to the Subcontractors the extent of their Work and coordinate overlapping Work.

B. Consult manufacturer's website for updates to this document and current installation instructions. Always use the latest version available.

1.02 SYSTEM DESCRIPTION

A. Supply labor, materials and equipment for a fully adhered water-resistive vapor permeable rain screen air barrier membrane system.

B. Complete Work as shown on the Drawings and specified herein to bridge gaps and seal the water-resistive vapor permeable air barrier membrane against air leakage and water intrusion.

1. Connections of the walls to the roof membrane
2. Connections of the walls to the foundations
3. Seismic and expansion joints
4. Openings and penetrations of window and door frames, store front, curtain wall
5. Piping, conduit, duct and similar penetrations
6. Masonry ties, screws, bolts and similar penetrations
7. All other air leakage pathways in the building envelope

C. Install primary water-resistive vapor permeable air barrier, flashing, lap seam tapes, sill pan and ventilation strip accessories.

1.03 REFERENCE STANDARDS

A. American Association of Textile Chemists and Colorists (AATCC): ATCC 127 - Test Method for Water Resistance: Hydrostatic Pressure Test.

B. ASTM International (ASTM):

1. ASTM D 882 - Test Method for Tensile Properties of Thin Plastic Sheeting.
2. ASTM E 84 - Test Method for Surface Burning Characteristics of Building Materials.
3. ASTM E 96/E 96M - Test Methods for Water Vapor Transmission of Materials.
4. ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
5. ASTM E 2178 - Standard Test Method for Air Permeance of Building Materials.
6. ASTM E2357 - Standard Test Method for determining Air Leakage of Air Barrier Assemblies.

C. International Code Council Evaluation Service, Inc. (ICC-ES): ICC-ES AC38 - Acceptance Criteria for Water-Resistive Barriers.

1.04 SUBMITTALS

A. Submit manufacturers' current product data sheets, details and installation instructions for the water-resistive vapor permeable air barrier membrane components and accessories.

B. Submit samples of the following:

1. Manufacturer's sample warranty
2. Water-resistive vapor permeable air barrier sheet, minimum 8 by 10 inches (203 by 254 mm)
3. Components, minimum 12-inch (305-mm) lengths
4. Membrane flashings
5. Fasteners, clips, strapping and masonry ties
6. Sealants

1.05 QUALITY ASSURANCE

A. Single Source: Self-adhered water-resistive vapor permeable air barrier membrane components and accessories must be obtained as a single-source membrane system to ensure total system compatibility and integrity.

B. Manufacturer Qualifications

1. Manufacturer of specified products listed in this Section to have minimum 10 years of continued experience in the manufacture and supply of highly vapor permeable water resistive air barrier products successfully installed in similar project applications.
2. Manufacturer of specified products listed in this Section to have experienced in-house technical and field observation personal qualified to provide expert technical support.

C. Fire Performance Characteristics: Provide water-resistive barrier meeting the following fire-test characteristics.

1. Surface-Burning Characteristics: ASTM E 84 Class A Rated

1.06 MOCK-UP

A. Construct mock-up in accordance with Section 01400 – Mock-ups.
B. Provide mock-up of specified water-resistive vapor permeable air barrier materials under provisions of Section 01600 - Shop Drawings, Product Data and Samples.
C. Where directed by architect, construct typical exterior wall panel, 6 foot long by 6 foot wide incorporating the sheathing board or substrate, sill pan protection system, window frame and attachment method, clips, strapping or masonry ties, attachment of insulation and detailing of water-resistive vapor permeable air barrier membrane application, transitions and lap seams.
   1. Perform water spray test of mockup to demonstrate performance.
D. Allow 48 hours for inspection of mock-up by architect before proceeding with water-resistive vapor permeable air barrier work. Mock-up may remain as part of the Work.

1.07 PRE-INSTALLATION CONFERENCE
A. Contractor shall convene one week prior to commencing Work of this section.
B. Ensure all contractors responsible for creating a continuous plane of water and air tightness are present.

1.08 DELIVERY, STORAGE AND HANDLING
A. Refer to current Product literature at www.vaproshield.com for proper storage and handling.
B. Deliver materials to the job site in undamaged and original packaging indicating the name of the manufacturer and product.
C. Store roll materials on end in original packaging. Protect rolls from direct sunlight and inclement weather until ready for use.
D. Wasted Management and Disposal
   1. Separate and recycle waste materials in accordance with Section [01355 - Waste Management and Disposal], and with the Waste Reduction Work Plan.

1.09 1.10 COORDINATION
A. Ensure continuity and proper shingling of the self-adhered water-resistive vapor permeable air barrier system throughout the scope of this section.

1.10 1.11 ALTERNATES
A. Submit request for alternates in accordance with Section 01250 – Substitution Procedures.
B. Submit requests for alternates a minimum of ten (10) working days prior to bid date.
C. Alternate submission to include:
   1. Evidence that alternate materials meet or exceed performance characteristics of specified Product requirements as well as documentation from an approved independent testing laboratory certifying the minimum physical dimensions, tensile strength, fire burning characteristics, vapor permeance and air leakage rates of the self-adhered water-resistive vapor permeable air barrier membrane without the aid of primers or surface conditioners.
   2. Manufacturer's complete set of details for self-adhered water-resistive vapor permeable air barrier membrane system showing a continuous plane of water and air tightness throughout the building enclosure.
   3. Manufacturer of alternate materials has experienced in-house technical and field observation personal qualified to provide expert technical support
D. Acceptable alternates will be confirmed by addendum. Substitute materials not approved in writing prior to bid date shall not be permitted for use on this project.

1.11 1.12 WARRANTY
A. Provide manufacturer's standard material warranty in which manufacturer agrees to provide replacement material for the self-adhered water-resistive vapor permeable air barrier sheets installed in accordance with manufacturer's instructions that fails due to material defects within 20 years of the date of Purchase.

PART 2 - PRODUCTS

2.01 MATERIALS
A. Primary self-adhered water-resistive vapor permeable air barrier membrane components and accessories must be obtained as a single-source to ensure total system compatibility and integrity.
   1. Self-Adhered water-resistive vapor permeable air barrier membrane by VaproShield LLC., Gig Harbor, WA, Ph (866) 731-7663, Email: info@VaproShield.com, Website: www.vaproshield.com.
   2. Other acceptable manufacturers: Cosella-Dorken

B. WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MATERIALS (Basis of Design)
   1. Primary self-adhered air barrier sheet membrane shall be RevealShield SA® Self-Adhered Water-Resistive Vapor Permeable Air Barrier Sheet by VaproShield, a zero VOC self-adhered vapor permeable

air barrier sheet membrane consisting of multiple layers of UV stabilized proprietary membrane having the following properties:

a. Color: Black (exterior) with allowable UV exposure for 180 days
b. Air Leakage: <0.01 cfm/ft. sq. when tested in accordance with ASTM E 2357 and < 0.0000263 cfm/sq. ft. @ 75 Pa (0.000134 L/s/m sq @ 75 Pa) when tested in accordance with ASTM E 2178
c. Water Vapor Permeance tested to ASTM E 96 Method B: minimum 40 perms
d. Water Resistance tested to AATCC 127, 550 mm hydrostatic head for 5 hours: No leakage
e. Tensile Strength tested to ASTM D 882: 44.8 lbf/inch (78 N/mm), machine direction; 25 lbf/inch (43.8 N/mm), cross-machine direction
f. Application Temperature: Ambient temperature must be above 20 degrees F
g. Surface Burning Characteristics tested to ASTM E 84: Class A
h. Physical Dimensions: 0.026 inches (0.65 mm) thick and 59 inches (1.5 m) wide and minimum 10 oz. per sq. yd.

C. WATER-RESISTIVE VAPOR PERMEABLE TRANSITION AND FLASHING MEMBRANE

1. Self-adhered air barrier transition and flashing membrane shall be RevealFlashing SA™ by VaproShield, a zero VOC self-adhered water-resistive vapor permeable membrane having the following properties:
   a. RevealFlashing SA™ Black: 11-3/4 inches x 100 feet long
   b. Air Leakage: < 0.0000263 cfm/sq. ft. @ 75 Pa (0.000134 L/s/m sq @ 75 Pa) when tested in accordance with ASTM E 2178
   c. Water Vapor Permeance tested to ASTM E 96 Method B: minimum 40 perms
   d. Water Resistance tested to AATCC 127, 550 mm hydrostatic head for 5 hours: No leakage

D. VAPROLIQUI-FLASH™ VAPOR PERMEABLE WATER RESISTIVE FLASHING FOR ROUGH OPENINGS

1. Window and door flashing shall be VaproLiqui-Flash by VaproShield, a liquid-applied vapor permeable air barrier flashing material with vapor permeance and resistance to air leakage properties compatible with the primary air barrier membrane.

E. WATER-RESISTIVE WEATHER BARRIER BATTEN ACCESSORIES

1. Water-resistive weather barrier batten accessories by VaproShield shall be made of black PVC material
   a. VaproBatten™: Black vinyl extrusion with pre-formed fastener and moisture drainage channels configured to create a ventilated airspace between wall cladding and weather-resistive air barrier.

2.02 PENETRATION SEALANT

A. Provide sealant for penetrations as recommended by manufacturer and as specified under Division 07 Section: Sealants. Appropriate sealants shall be Dow 758 or VaproLiqui-Flash.

PART 3 EXECUTION

3.01 GENERAL

A. Verify that surfaces and conditions are ready to accept the Work of this section. Notify architect in writing of any discrepancies. Commencement of the Work or any parts thereof shall mean acceptance of the prepared substrates.
B. All surfaces must be dry, sound, clean and free of oil, grease, dirt, excess mortar or other contaminants detrimental to the adhesion of the water resistive air barrier membrane and flashings. Fill voids and gaps in substrate greater than ¼ inch in width to provide an even surface. Strike masonry joints full-flush.
C. Minimum application temperature self-adhered membrane and flashings to be above 20 degrees F (minus 6.0 degrees C).
D. Ensure all preparatory Work is complete prior to applying primary self-adhered vapor permeable air barrier sheet membrane.
E. Mechanical fasteners used to secure sheathing boards or penetrate sheathing boards shall be set flush with sheathing and fastened into solid backing.

3.02 COORDINATION OF SELF-ADHERED VAPOR PERMEABLE AIR BARRIER MEMBRANE INSTALLATION

A. Self-adhered vapor permeable air barrier sheets may be installed vertically or horizontally over the outside face of exterior sheathing board or substrate.
B. Complete detail Work around corners, wall openings, building transitions and penetrations prior to field applications.
C. Install self-adhered vapor permeable air barrier sheet over the outside face of exterior sheathing board or substrate, measure and pre-cut into manageable sized sheets to suit the application conditions.
D. Install self-adhered vapor permeable air barrier sheet complete and continuous to substrate in a sequential

overlapping weatherboard method starting at bottom or base of wall and working up.

E. Stagger all end lap seams.

F. Roll installed membrane with roller to ensure positive contact and adhesion with substrate.

3.03 BUILDING TRANSITION CONDITIONS

A. Tie-in to structural beams, columns, floor slabs and intermittent floors, parapet curbs, foundation walls, roofing systems and at the interface of dissimilar materials with self-adhering air barrier transition and flashing membrane.

B. Align and position self-adhered air barrier transition and flashing membrane, remove protective film and press firmly into place. Provide minimum 3 inch lap on to substrates.

C. Ensure minimum 3 inch overlap at side and end laps of membrane.

D. Roll membrane and lap seams with roller to ensure positive contact and adhesion.

E. At inside and outside corners provide minimum 12 inch off-set of vertical seams.

3.04 MECHANICAL EQUIPMENT PENETRATIONS

A. Mechanical pipe, electrical conduit and/or duct work must be secured solid into position prior to installation of self-adhered vapor permeable air barrier membrane.

B. Electrical services penetrating the wall assembly and self-adhered vapor permeable air barrier membrane must be placed in appropriate conduit and secured solid into position.

C. Install manufactured flanged penetration sleeves as recommended by sleeve manufacturer.

D. For straight sided penetrations, cut and fit self-adhered vapor permeable air barrier to accommodate sleeve, install specified single sided flashing tape to seal the air barrier membrane to ductwork or preformed flange sleeve.

E. For all penetrations, refer to manufacturer's current standard details at www.vaproshield.com

3.05 VERTICAL APPLICATIONS

A. For vertical applications, align sheets with an 'inside' or 'outside' corner to avoid wrinkles and mis-alignment of subsequent applications.

B. Measure and pre-cut into manageable sized self-adhered sheets to suit the application conditions.

C. Hang self-adhered sheets over wall and extend down to lowest point of wall. Allow for excess material at bottom of wall to accommodate tie-ins and connections to adjacent surfaces.

D. Align and position self-adhered membrane, remove release film and press firmly into place. Provide minimum 3 inch overlap at side and end laps of membrane. Roll membrane and lap seams with roller to ensure contact and adhesion.

E. Continue to remove release film and apply pressure to ensure positive contact onto wall substrate.

F. Install subsequent sheets of self-adhered vapor permeable air barrier sheets in overlapping weatherboard format. Ensure sheets lay smooth and flat to surfaces. Roll membrane and lap seams with roller to ensure contact and adhesion.

3.06 HORIZONTAL APPLICATIONS

A. For horizontal applications, align sheets and begin installation of water-resistive weather barrier at bottom or lowest point of wall.

B. To avoid wrinkles and mis-alignment of subsequent applications it is recommended to pre-mark or "Snap" a level line to work from. Measure and pre-cut into manageable sized sheets to suit the application conditions.

C. Allow for excess material at bottom of wall to accommodate tie-ins and connections to adjacent surfaces.

D. Align and position self-adhered membrane, remove release film and press firmly into place. Provide minimum 3 inch overlap at all side and end laps of membrane. Roll membrane and lap seams with roller to ensure contact and adhesion.

E. Continue to remove release film and apply pressure to ensure positive contact onto wall substrate.

F. Install subsequent sheets of self-adhered vapor permeable air barrier sheets in overlapping weatherboard format. Ensure sheets lay smooth and flat to surfaces. Roll membrane and lap seams with roller to ensure contact and adhesion.

3.07 BATTENS FOR RAIN SCREEN CLADDING SYSTEMS

A. Provide and install specified battens under cladding systems.

B. Coordinate spacing of battens to accommodate cladding system.

3.08 FASTENING CLIPS AND MASONRY TIES

A. Install clips and masonry ties over primary self-adhered vapor permeable air barrier membrane.

B. Secure clips and masonry ties with corrosion-resistant, or stainless steel screws with gasketed fasteners.

C. Consult VaproShield Technical Services for recommendations on appropriate masonry tie types and methods to seal penetrations.

3.09 FIELD QUALITY CONTROL

A. Make notification of when sections of work are complete to allow review prior to covering self-adhered water-resistive vapor permeable air barrier system.

B. Owner to engage independent consultant to observe substrate and membrane installation prior to placement of cladding systems and provide written documentation of observations.

3.10 PROTECTION

A. Protect wall areas covered with self-adhered water-resistive vapor permeable air barrier from damage due to construction activities, high wind conditions, and extended exposure to inclement weather.

B. Review condition of self-adhered water-resistive vapor permeable air barrier prior to installation of cladding. Repair, or remove and replace damaged sections with new membrane.

C. Recommend to cap and protect exposed back-up walls against wet weather conditions during and after application of membrane, including wall openings and construction activity above completed self-adhered water-resistive vapor permeable air barrier installations.

D. Remove and replace water-resistive weather barrier membrane affected by chemical spills or surfactants.

END OF SECTION

DIVISION 14 – CONVEYING SYSTEMS

SECTION 14425 - VERTICAL WHEELCHAIR LIFTS

1. RELATED SECTIONS
   - A. Section 03300 – Cast in Place Concrete
   - B. Division 16 - Electrical: Electrical power service and wiring connections.
2. REFERENCES
   - A. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
   - B. CSA B44 - Safety Code for Elevators and Escalators.
   - C. CSA B355 - Lifts for Persons with Physical Disabilities.
   - D. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
   - E. NFPA 70 - National Electric Code.
3. SUBMITTALS
   - A. Submit under provisions of Section 01300.
   - B. Product Data: Manufacturer's data sheets on each product to be used, including:
     1. Submit manufacturer's installation instructions, including preparation, storage and handling requirements.
     2. Include complete description of performance and operating characteristics.
     3. Show maximum and average power demands.
   - C. Shop Drawings:
     1. Show typical details of assembly, erection and anchorage.
     2. Include wiring diagrams for power, control, and signal systems.
     3. Show complete layout and location of equipment, including required clearances and coordination with shaftway.
   - D. Selection Samples: For each finished product specified, provide two complete sets of color chips representing manufacturer's full range of available colors and patterns for exterior application.
4. QUALITY ASSURANCE
   - A. Manufacturer Qualifications: Firm with minimum 10 years’ experience in manufacturing of vertical platform lifts, with evidence of experience with similar installations of type specified.
   - B. Installer Qualifications: Licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts, have qualified people available to ensure fulfillment of maintenance and callback service without unreasonable loss of time in reaching project site.

5. REGULATORY REQUIREMENTS

   A. Provide platform lifts in compliance with:
      1. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
      2. ASME A17.1 - Safety Code for Elevators and Escalators.
      3. ASME A17.5 - Elevator and Escalator Electrical Equipment.
      4. NFPA 70 - National Electric Code.
      5. CSA B355 - Lifts for Persons with Physical Disabilities.
      6. CSA B44.1/ASME A17.5 - Elevator and Escalator Electrical Equipment.
      7. CSA - National Electric Code.

6. DELIVERY, STORAGE, AND HANDLING

   A. Store products in manufacturer's unopened packaging until ready for installation.

   B. Store components off the ground in a dry covered area, protected from adverse weather conditions.

7. PROJECT CONDITIONS

   A. Do not use wheelchair lift for hoisting materials or personnel during construction period.

8. WARRANTY

   A. Warranty: Provide a two year limited warranty for wheelchair lift materials and workmanship.

   B. Extended Warranty: Provide an extended manufacturer's warranty covering the wheelchair lift materials and workmanship for the following additional extended period beyond the initial two year warranty. Preventive Maintenance Agreement required.

      1. Three Years (5 Years Total)

9. MANUFACTURERS

   A. Acceptable Manufacturer: Garaventa Lift, which is located at: 7505 134 A St. ; Surrey, BC; Canada V3W 7B3; Toll Free Tel: 800-663-6556; Tel: 604-594-0422; Fax: 604-594-9915; Email: request info (bramsay@garaventalift.com); Web: www.garaventalift.com

10. UNENCLOSED VERTICAL WHEELCHAIR LIFT

    A. Capacity: 750 lbs (340 kg) rated capacity.

    B. Mast Height:

       1. Model GVL-OP-60; 63 inches (1600 mm) maximum lifting height.

    C. Platform Size and Nominal Clear Platform Dimensions:

       1. Standard: 36 inches (914 mm) by 48-7/8 inches (1242 mm) clear platform dimensions.

    D. Platform Configuration:

       1. Straight Through: Front and rear openings.

E. Landing Openings: Gates shall be self-closing type.
   1. Gate Height: 42-1/8 inches (1070 mm).
   2. Gate Width: 41-3/4 inches (1060 mm).
   3. Platform Gate: Travels with platform and opens at lower landing.
   4. Upper Landing Gate: Detached, freestanding type.

F. Lift Components:
   1. Machine Tower: Custom aluminum extrusion.
   2. Base Frame: Structural steel.
   3. Platform Side Wall Panels: ½" Clear Tempered Glass.
   4. Platform Access Ramp: 12 gauge (2.5 mm) galvanized steel plates; slip resistant surfaces.
      a. Ramp: Automatic folding type.
   5. Side Guard Panels: 42-1/8 inches (1070 mm) high mounted on platform.

G. Base Mounting and Access to Lift at Lower Landing:
   1. Floor Mount: Base of lift shall be mounted on the floor surface of the lower landing. For access onto the platform, provide a ramp of 16 gauge (1.5mm) galvanized steel sheet with slip resistant surface.

H. Hydraulic Drive:
   1. Drive Type: Chain hydraulic.
   2. Emergency Operation: Manual device to lower platform and battery auxiliary power to raise or lower platform.
   3. Safety Devices:
      a. Slack chain safety device.
      b. Shoring device.
   4. Travel Speed: 17 fpm (5.2 m/minute).
   5. Motor: 3.0 hp (2.2 kW); 24 volts DC.
   6. Power Supply:
      a. 120 VAC single phase; 60 Hz on a dedicated 15 amp circuit.
      b. Powered by continuously charged battery system.

I. Platform Controls: 24 VDC control circuit with the following features.
   1. Direction Control: Constant pressure rocker switch.
   2. Illuminated and audible emergency stop switch shuts off power to lift and activates audio alarm with battery backup.
   3. Keyless operation.
   4. Arrival Gong and Digital Floor Display.

J. Call Station Controls: 24 VDC control circuit with the following features.
   1. Direction Control:
      a. Elevator style with illuminated and tactile buttons.
   2. Keyless operation.
   3. Call Station Mounting:
      1) Upper: Frame mounted.

K. Safety Devices and Features:
   1. Grounded electrical system with upper, lower, and final limit switches.
   2. Tamper resistant interlock to electrically monitor that the gate is in the closed position and the lock is engaged before lift can move from landing.
   3. Electrical disconnect shall shut off power to the lift.

4. Under platform safety pan with five waterproof safety switches to detect obstruction under platform.

L. Finishes
1. Aluminum Extrusions: Champagne anodized finish.
2. Lift Finish: Baked powder coat finish as selected by the Architect.
3. Ferrous Components: Electrostatically applied baked powder finish, fine textured.
a. Color: Satin Grey, RAL 7030.

11. EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Verify shaft and machine space are of correct size and within tolerances.

C. Verify required landings and openings are of correct size and within tolerances.

D. Verify electrical rough-in is at correct location.

E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

12. PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

13. INSTALLATION

A. Install lifts in accordance with applicable regulatory requirements including ASME A 17.1, ASME A 18.1 and the manufacturer's instructions.

B. Install lifts in accordance with applicable regulatory requirements and manufacturer's instructions.

C. Install system components and connect to building utilities.

D. Accommodate equipment in space indicated.

E. Startup equipment in accordance with manufacturer's instructions.

F. Adjust for smooth operation.

14. FIELD QUALITY CONTROL

A. Perform tests in compliance with ASME A 17.1 or A18.1 and as required by authorities having jurisdiction.

B. Schedule tests with agencies and Architect, Owner, and Contractor present.

15. PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.