SECTION 14 20 00 - Elevators

ELEVATORS AND LIFTS

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\*\* NOTE TO SPECIFIER \*\* Savaria; residential and commercial elevators and lifts.  
 .  
 This section is based on the products of Savaria, which is located at:2 Walker Dr.Brampton, ON, Canada L6T 5E1Toll Free Tel: 855-728-2742Tel: 905-791-5555Fax: 905-791-2222Email: [request info (info@savaria.com)](https://arcat.com/rfi?action=email&company=Savaria&message=RE%253A%2520Spec%2520Question%2520(14202sci)%253A%2520&coid=31585&spec=14202sci&rep=&fax=905-791-2222)  
Web: <https://www.savaria.com>   
   
[ [Click Here](http://www.arcat.com/company/31585) ] for additional information.  
  
As a leading designer and manufacturer of residential elevators, luxury home elevators, commercial elevators, and lifts for over 30 years, Savaria Lifts has thousands of satisfied customers to thank for their business. Our global operation continuously seeks to advance manufacturing processes in our own modern facilities, allowing us to offer exceptional value and shorter lead times, while never compromising product quality, safety, or reliability. As an active member of many trade associations, we are committed to the ongoing support of its customers and dealers alike. Authorized dealers are carefully selected for their knowledge and experience, kept up-to-date with the latest technical and training sessions, and supported with our expert customer service.  
  
  
Residential Elevators: Easily and quickly installed in new or existing homes, our residential elevators will embellish your home decor with its many available stylish finishes.  
Savaria Infinity Luxury Elevator: Designed to provide a luxurious yet affordable means of vertical transportation for multilevel homes. Infinity's reliable, quiet and smooth operation is ensured by our innovative hydraulic drive system. With a variety of cab finishes and colors the Infinity allows you to customize your design for a more personalized look.  
Savaria Eclipse Home Elevator: This machine room-less design saves space in the home and can also reduce installation time. With an extensive selection in custom finishes, the Eclipse elevator can be designed to suit almost any tastes and preferences.   
  
  
Savaria Vuelift Elevator: Vuelift integrates into beautiful households both seamlessly and tastefully. Utilizing an integrated full glass hoistway and completely self-contained design, a Vuelift provides a power and precision unrivaled in the marketplace. Vuelift elevators come in two styles to match the architecture of your home: the trademark original round elevator with sweeping curved cylindrical glass, or the sleek octagonal glass elevator with unique folded corner design.  
  
  
Commercial LU/LA Elevator: Savaria provides user-friendly, good value solutions for both new construction, and retrofitting into existing buildings.   
  
Savaria Orion LU/LA: A fully enclosed commercial elevator that makes code compliance fast and easy. Completely redesigned, it meets all current American and Canadian Code requirements for limited-use/ limited application (LU/LA) elevators. It is also suitable for residential use.  
  
  
Commercial Wheelchair Lifts:  
  
Savaria Prolift SCL: A fully enclosed Commercial Lift that provides an economical means of vertical transportation for the physically disabled. It has a reliable, quiet, and smooth operation while serving from two to four floors.  
  
V1504: The unique drive and platform combinations of the V-1504 vertical wheel chair platform lift allows for rapid delivery and ease of installation in respect to any architectural requirements.  
  
Multilift Vertical Platform Lift: The ACME screw drive system offers a safe and reliable operation for its users. This ruggedly constructed lift has been proven for both indoor and outdoor applications. The Multilift vertical wheel chair platform lift is designed to meet today's safety code requirements such as ASME A18.1 for residential and commercial use.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Residential elevators.
    2. Commercial wheelchair lifts.
    3. Commercial LU/LA elevator.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant for elevator products; add others as required.

* + 1. Division 16 Sections for electrical service for elevators to and including disconnect and fused switches at machine room.
    2. Division 16 Sections for standby power source, transfer switch, and connection from auxiliary contacts in transfer switch to controller.
    3. Division 16 Section "Voice and Data Communication Cabling" for telephone service to elevators.
    4. Section 03 30 00 - Cast-in-Place Concrete.
    5. Section 06 10 00 - Rough Carpentry.
    6. Section 08 14 23.16 - Plastic-Laminate-Faced Wood Doors.
    7. Section 08 71 53 - Security Door Hardware.
    8. Section 09 21 16.23 - Gypsum Board Shaft Wall Assemblies.
    9. Section 09 65 13 - Resilient Base and Accessories.
    10. Section - .
    11. Section 09 90 00 - Painting and Coating.
    12. Section 28 36 33 - Water Detection Sensors.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not required.

* + 1. American National Standards Institute (ANSI) B-29.2 - Chain Standards for Inverted Tooth (Silent) Chains and Sprockets.
    2. American Society of Mechanical Engineers (ASME) A17.1 - Safety Code for Elevators and Escalators.
    3. American Society of Mechanical Engineers (ASME) A18.1 - Safety Standard for Platform and Stairway Chair Lifts.
    4. CSA B44.1 - Elevator and Escalator Electrical Equipment.
    5. CSA B355 - Lifts for Persons with Physical Disabilities.
    6. CSA B613 - Private Residence Lifts for Persons with Physical Disabilities.
    7. CSA - National Electric Code.
    8. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
    9. NFPA 70 - National Electric Code.
    10. U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)".
  1. REQUIREMENTS OF REGULATORY AGENCIES
     1. Fabricate and install work in compliance with applicable jurisdictional authorities.
     2. File shop drawings and submissions with local authorities as the information is made available. Company pre-inspection and jurisdictional authority inspections and permits are to be made on timely basis as required.
  2. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
     3. Shop Drawings: Provide a complete layout of lift equipment detailing dimensions and clearances as required.
     4. Verification Samples: For each finish product specified.
  3. QUALITY ASSURANCE
     1. Installer Qualifications: Minimum 2 years experience installing similar products, and acceptable to the manufacturer.
        1. Skilled tradesmen to be employees of installing contractor approved by the manufacturer, with demonstrated ability to perform the work on a timely basis.
        2. Must have adequate product liability insurance.
  4. DELIVERY, STORAGE, AND HANDLING
     1. Store products in manufacturer's unopened packaging until ready for installation.
     2. Store and dispose of solvent-based materials, and associative materials, in accordance with requirements of local authorities having jurisdiction.
  5. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.
  6. WARRANTY
     1. Manufacturer warranty applies to repair or replacement, of parts failing due to defective material or workmanship. Manufacturer may, provide factory reconditioned parts. Warranty is provided to Authorized Dealer on behalf of final purchaser and is not transferable. Warranty does not cover labor charges for removal, repair, or replacement. Labor costs may be covered for a period of time by Authorized Dealer's warranty, provided to purchaser separately.
        1. Manufacturer 36 month limited warranty on parts from date of shipment.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Savaria, which is located at: 2 Walker Dr.; Brampton, ON, Canada L6T 5E1; ASD Toll Free Tel: 800-661-5112; Tel: 905-791-5555; Fax: 905-791-2222; Email: request info (info@savaria.com); Web: https://www.savaria.com

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. RESIDENTIAL ELEVATOR

\*\* NOTE TO SPECIFIER \*\* Please select model type; Please note, Telecab has 500 lb (227 kg) weight capacity and Telecab17 has 845 lb (383 kg) weight capacity. Delete model not required.

* + 1. Residential Elevator: Model Telecab.
    2. Residential Elevator: Model Telecab17.
    3. Equipment, incidental material, and labor required for complete, operable hydraulic elevator installation. Erected, installed, adjusted, tested, and placed in operation by the elevator system manufacturer or manufacturer's authorized installer.
    4. Performance: Designed and tested per ASME A17.1 part V. Testing to consist of loading platform to rated capacity for several cycles insuring proper operation. Correct mechanical failures and defects.
    5. Preparatory Work to receive elevator to be the work provided by others:
       1. Dedicated 110 VAC 20 amp single phase power to operate lift to be provided.
       2. No pit shall be provided.

\*\* NOTE TO SPECIFIER \*\* Delete load-bearing wall option not required. For Telecab17 you must select option 950 lbs option.

* + - 1. Load-bearing wall to support a load of 700 lbs (317 kg) at any point.
      2. Load-bearing wall to support a load of 950 lbs (431 kg) at any point.
      3. Provide a floor cut out. Refer to shop drawings.
      4. The floor needs to support 3200 lb (1452 kg).
      5. A phone line shall be provided.
    1. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load delete option not required.

* + - 1. Rated Load: 500 lb (227 kg); Telecab
      2. Rated Load: 845 lb (383 kg); Telecab17.
      3. Rated Speed: 20 fpm. (0.10 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions not required.

* + - 1. Car Size (WxLxH): 30x46x78 inches (762x1168x1981 mm); Telecab
      2. Car Size (WxLxH): 30x46x80 inches (762x1168x2032 mm); Telecab17.
      3. Car Size (WxLxH): 36x54x80 inches (914x1372x2032 mm); Telecab17.
      4. Levels Serviced: 2.

\*\* NOTE TO SPECIFIER \*\* Delete door operation options not required.

* + - 1. Door Operation: Manual door; Telecab.
      2. Door Operation: Hydraulic door closer; Telecab17.
      3. Door Operation: Automatic door operator; Telecab.
      4. Cab Configuration: Enter/exit same side.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel is 23 feet (7.01 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings
      3. Operations: Constant pressure.
      4. Power Supply: 110 VAC, 20 amps, 1 Phase.
      5. Drive System: 2 to 1 roller chain hydraulic.
      6. Paint: Powder coat finish.
      7. Color: White.

\*\* NOTE TO SPECIFIER \*\* Delete emergency option not required.

* + - 1. Emergency Power: Battery operation in down direction; standard.
      2. Emergency Power: 24 VDC battery back up in both up and down direction.
      3. Controller: Relay logic based controller.
      4. Motor/Pump: 3 HP/geared type; standard.
      5. Car Operating Panel: Constant pressure buttons, emergency stop/alarm button, on/off key switch, emergency light, and alarm button; mounted on a removable stainless steel panel.
      6. Hall Call Stations: Flush or surface mounted landing call/send stations.
      7. Emergency Operation: Equipped with battery-operated emergency lighting.
      8. Battery: Rechargeable with automatic recharging system.
      9. Manual Lowering Device: Located in lockable box in machine room.
    1. Car Enclosure:
       1. Walls: Metal wall panels.
       2. Ceilings: Metal with two recessed pot lights.
       3. Floor: Metal with non-skid surface.
       4. Handrail location: Handrail located on the door side.
       5. Clear plexiglass windows on cab walls as required.

\*\* NOTE TO SPECIFIER \*\* Delete door size options not required.

* + - 1. Car Door Size and Type (HxW): 78 x 30 inches (1981 x 762 mm). Steel with a plexiglass insert; Telecab
      2. Car Door Size and Type (HxW): 80 x 30 inches (2032 x 762 mm). Aluminum tubing with plexiglass insert; Telecab17
      3. Car Door Size and Type (HxW): 80 x 36 inches (2032 x 914 mm). Aluminum tubing with plexiglass insert; Telecab17
    1. Systems and Components:
       1. Pumping Unit and Control: Enclosed in tower. Pre-wired. Tested prior to shipment. Incorporate the following features:
          1. Adjustable pressure relief valve.
          2. Gate valve to isolate cylinder from pump unit.
          3. Electrical solenoid for down direction control.
       2. Cylinder: Steel pipe of sufficient thickness and suitable safety margin. Cylinder head with internal guide ring and self-adjusting packing.
       3. Plunger: Steel shaft machined true and smooth with stop electrically welded to bottom preventing plunger from leaving cylinder.
       4. Roller Chains: Two No.50 roller chains; 5/8 inch (16 mm) pitch. Minimum Breaking Strength: 6100 lb (2772 kg) each.
       5. Leveling Device: Anti-creep device which maintaining carriage level within 1/2 inch (13 mm) of top landing.
          1. Limit switches and Leveling Device Switches: Located in position to be inaccessible to unauthorized persons. Located behind the mast wall and accessible through removable panels.
       6. Guide Yoke: 2:1 arrangement; two idler guides, roller guide shoes, bearings, and guards.
       7. Terminal Stopping Device: At top and bottom of runway stopping car positively and automatically by use of limit switches.
       8. Guide 'C' Steel Rail and Brackets: Guide platform and sling. Part of structural integrity of unit and integral to mast enclosure, ensuring stability and minimum platform deflection when loaded.
       9. Wiring and Electrical Connections: Comply with applicable codes. Insulated wiring; flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire way if located outside enclosure. Use quick disconnect harnesses when possible.
       10. Elevator Door Lock: Electrical mechanical weather resistant WR-500 CSA approved.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. RESIDENTIAL ELEVATOR
     1. Residential Elevator: Savaria Infinity.
     2. Equipment, incidental material, and labor for complete, operable hydraulic elevator installation. Erected, installed, adjusted, tested, and placed in operation by elevator system manufacturer or manufacturer's authorized installer.
     3. Performance: Designed and tested per ASME A17.1 part V. Testing to consist of loading platform to rated capacity for several cycles insuring proper operation. Mechanical failures and defects shall be corrected.
     4. Preparatory work to receive elevator specified to be the work provided by others:
        1. Permanent 220 VAC, 30 amp single phase power to operate lift. Provided from lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. 110 VAC, 15 amp single phase power to operate lighting circuit. Refer to Drawings for power specifications and location of disconnects.
        2. Plumb and square hoistway with smooth interior surfaces, including fascias or furring of hoistway interior.
        3. Rough openings per lift subcontractor's shop drawings.
        4. Substantial, level pit floor slab as indicated on lift contractor's shop drawings.
     5. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load not required.

* + - 1. Rated Load: 750 lbs. (340 kg).
      2. Rated Load: 950 lbs. (431 kg).
      3. Rated Speed: 36 fpm (0.18 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions options not required.

* + - 1. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).
      2. Car Dimensions (WxD): 36 x 54 inches (914 x 1372 mm).
      3. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).
      4. Car Dimensions (WxD): 40 x 54 inches (1016 x 1372 mm).
      5. Car Dimensions (WxD): Custom Platform (Up to 15 sf).
      6. Car Operation: Automatic.
      7. Power Supply: 220 Volt, Single Phase, 30 Amps.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel is 50 feet (15.24 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Pit depth: 8 inches recommended, 6 inches possible, please contact manufacturer for more information.

* + - 1. Pit Depth: 8 inches

\*\* NOTE TO SPECIFIER \*\* Delete levels serviced options not required.

* + - 1. Levels Serviced: 2.
      2. Levels Serviced: 3.
      3. Levels Serviced: 4.
      4. Levels Serviced: 5.
      5. Levels Serviced: 6.

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required.

* + - 1. Cab Configuration: Enter/exit same side.
      2. Cab Configuration: Straight through cab.
      3. Cab Configuration: 90 degree.
      4. Lighting Supply: 110 Volt, 1 Phase, 60 Cycles, 15 Amps.
      5. Drive System: 1:2 Cable Hydraulic.
      6. Pump Type: Submersible with Variable Speed Valve Leveling.
      7. Car Operating Panel: Automatic push buttons, digital floor position indicator, emergency stop/alarm button, on/off key switch, emergency light, and alarm button mounted on a removable steel panel.
      8. Hall Call Stations: Keyless hall call station; illuminated call button and stainless steel cover plate for each landing.
      9. Emergency Operation: Equip car with battery-operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. Battery to be rechargeable with automatic recharging system.
      10. Manual Lowering Device: Inside lockable hydraulic tank in machine room.
      11. Manual Lowering: Outside the hoist way at machine room.
    1. Car Enclosure:

\*\* NOTE TO SPECIFIER \*\* Delete wall options and subsequent options not required.

* + - 1. Walls: MDF; standard.
      2. Walls: Durable Melamine wall panels; standard from Manufacturers chart.
      3. Walls: Unfinished Veneer.
         1. Species: Oak.
         2. Species: Cherry.
         3. Species: Maple.
         4. Species: Birch.
      4. Walls: Clear Finished Recessed Veneer.
         1. Species: Oak.
         2. Species: Cherry.
         3. Species: Maple.
      5. Wall: Finished Raised Hardwood.
         1. Species: Oak
         2. Species: Cherry.
         3. Species: Maple.
      6. Wall: Luxury MDF.
         1. White.
         2. Black.
         3. Anthracite.
         4. Red.
         5. Amazon.
         6. Metallic Elm.
         7. Sugar Maple.
         8. Walnut.
         9. Oak.
         10. Silver Strands.
         11. Pearl Matrix.
         12. Inox.
         13. Kenya.
         14. Cedar.

\*\* NOTE TO SPECIFIER \*\* Delete ceilings option not required.

* + - 1. Ceilings: White Melamine; standard with 4 Recessed Down Lights.
      2. Ceilings: Match Cab Finish.
      3. Overhead Lights in Car Compartment: Turn ON when elevator door is opened and stay on while in use. Shut off by timer when elevator is not in use.
      4. Elevator Lighting: 4 x Energy Saving LED Cab Lights.

\*\* NOTE TO SPECIFIER \*\* 1 1/2 inch sub flooring must include pit depth of 8 inches or more.

* + - 1. Cab Floor: Unfinished 1 1/2 inch (38 mm) plywood sub-flooring.

\*\* NOTE TO SPECIFIER \*\* Delete car gate options not required.

* + - 1. Car Gate at Cab Entrances: Horizontally collapsible accordion style car gate with vinyl panels and three acrylic vision panels.
      2. Car Gate at Cab Entrances: Horizontally collapsible accordion style car gate with vinyl panels and Horizontally collapsible accordion style car gate with all acrylic vision panels.
      3. Car Gate at Cab Entrances: Horizontally collapsible accordion style car gate with vinyl panels and Automatic 2 speed 4 panel sliding doors (slim door)
      4. Car Gate at Cab Entrances: Horizontally collapsible accordion style car gate with vinyl panels and Bi-Fold Gate, white finish
      5. Car Gate at Cab Entrances: Horizontally collapsible accordion style car gate with vinyl panels and Bi-Fold Gate, stainless steel finish

\*\* NOTE TO SPECIFIER \*\* Delete options for cab fixtures not required.

* + - 1. Cab Fixtures: Anodized clear; standard.
      2. Cab Fixtures: Anodized bronze; standard.
      3. Cab Fixtures: Brushed stainless steel.
      4. Cab Fixtures: Brushed brass.
      5. Cab Fixtures: Blackened stainless steel.
    1. Systems and Components:
       1. Pumping Unit and Controller: In a separate machine room. Pre-wired. Tested prior to shipment. Incorporate the following features.
          1. Smooth stops at each landing.
          2. Submersible pump and motor.
          3. Adjustable pressure relief valve.
          4. Manually operable down valve to lower lift in event of emergency. Activated from the machine room.
          5. Pressure gauge isolating valve, manually operable.
          6. Gate valve to isolate cylinder from pump unit in the hydraulic tank.
          7. Electro Proportional Valve: For accurate and smooth starts and stops in both directions.
          8. Emergency lowering by battery power, from the car control.
       2. Cylinder: Constructed of steel pipe of sufficient thickness and safety margin. Cylinder head equipped with internal guide ring and self-adjusting packing.
       3. Plunger: Solid steel shaft of proper diameter machined true and smooth with a stop electrically welded to bottom to prevent plunger from leaving cylinder.
       4. Cable: Aircraft Cable 2 x 3/8 inch (10 mm) Dia. Minimum breaking strength of 12,000 lb (5455 kg) each.
       5. Leveling Device: Anti-creep device maintaining carriage level within 1/2 inch (13 mm) at each landing.
          1. Limit Switches and Leveling Device Switches: To be inaccessible to unauthorized persons. Micro-switches are not acceptable.
       6. Guide Yoke: 1:2 arrangement supplied with sheave, guide shoes and cable guards. Sheave finished with rounded grooves to fit cables.
       7. Guide 'T' Rail and Brackets: Steel 8 lb/ft (11.9 kg/m) securely fastened to building structure. Car sling fabricated from steel members with adequate bracing to support platform and cab.
       8. Wiring and Electrical Connections: Comply with applicable codes. Insulated wiring with flame-retardant and moisture-proof outer covering run in conduit or electrical wireway if located outside unit enclosure. Use quick disconnect harnesses when possible.
       9. Door Locks: CSA and UL approved electrical mechanical elevator interlock.
    2. Emergency Devices:
       1. Terminal Limits. Stops elevator if it overruns limits at top or bottom landing.
       2. Final limits: Redundant safety feature if elevator overruns terminal limits at top or bottom. The final limit stops elevator and renders automatic controls inoperable. Elevator must then be serviced to determine and correct the fault.
       3. Pit Switch: Disables elevator for servicing purposes.
       4. Interlocks: Hoistway doors remain locked when car is not at floor and prevent elevator from running until doors are closed and locked.
       5. Slack/Broken Cable Safety Device: If drive cable slackens or breaks, device locks car onto T-rails, preventing car from falling.
       6. Pump run timer for low oil protection.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. RESIDENTIAL ELEVATOR
     1. Residential Elevator: Savaria Eclipse.
     2. Equipment, incidental material, and labor required for complete, operable hydraulic elevator installation. Erected, installed, adjusted, tested, and placed in operation by elevator system manufacturer or manufacturer's authorized installer.
     3. Performance: Designed and tested per ASME A17.1 part V. Testing to consist of loading platform to rated capacity for several cycles to insure proper operation. Mechanical failures and defects to be corrected.
     4. Preparatory work to receive elevator specified to be the work provided by others:
        1. Permanent 220 VAC, 30 amp single phase power to operate lift provided from a lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. 110 VAC, 15 amp single phase power to operate lighting circuit. Refer to Drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
        2. Hoistway: Plumb and square with smooth interior surfaces, including fascias or furring of hoistway interior.
        3. Rough openings per lift subcontractor's shop drawings.
        4. Substantial, level pit floor slab as indicated on lift contractor's shop drawings
     5. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load option not required.

* + - 1. Rated Load: 750 lbs (340 kg)
      2. Rated Load: 950 lbs (431 kg)
      3. Rated Speed: 40 fpm (0.20 m/s)

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions options not required.

* + - 1. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).
      2. Car Dimensions (WxD): 36 x 54 inches (914 x 1372 mm).
      3. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).
      4. Car Dimensions (WxD): 40 x 54 inches (1016 x 1372 mm).
      5. Car Dimensions (WxD): Custom Platform; up to 15 sq ft.
      6. Operation: Automatic.
      7. Power Supply: 230 Volt, Single Phase, 30 Amps.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel allowed in most jurisdictions is 50 feet (15.24 m). Maximum from manufacturer is 60 feet (18.288 m). Please verify with local code restrictions.

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Pit depth: 8 inches recommended, 6 inches possible, please contact manufacturer for more information.

* + - 1. Pit Depth: 8 inches

\*\* NOTE TO SPECIFIER \*\* Delete levels serviced options not required.

* + - 1. Levels Serviced: 2.
      2. Levels Serviced: 3.
      3. Levels Serviced: 4.
      4. Levels Serviced: 5.
      5. Levels Serviced: 6.

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required.

* + - 1. Cab Configuration: Enter/exit same side.
      2. Cab Configuration: Straight through cab
      3. Cab Configuration: 90 degree
      4. Lighting Supply: 110 Volt, 1 Phase, 60 Cycle, 15 Amps.
      5. Geared Roller Chain #60.
      6. Two Way Leveling.
      7. Drive: Variable Frequency
      8. Car Operating Panel: Automatic push buttons, digital floor position indicator, emergency stop/alarm button, on/off key switch and emergency light, and an alarm button mounted on a removable steel panel.
      9. Hall Call Stations: Keyless with illuminated call button and a matching cover plate for each landing.
      10. Emergency Operation: The car shall be equipped with a battery-operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. The battery shall be the rechargeable type with an automatic recharging system. A manual lowering device shall be located in a lockable box positioned at the uppermost landing.
    1. Car Enclosure:

\*\* NOTE TO SPECIFIER \*\* Delete walls options and subsequent options not required.

* + - 1. Walls: MDF; standard.
      2. Walls: Durable Melamine wall panels; standard from Manufacturers Chart.
      3. Walls: Unfinished Veneer.
         1. Species: Oak.
         2. Species: Cherry.
         3. Species: Maple.
         4. Species: Birch.
      4. Walls: Clear Finished Recessed Veneer.
         1. Species: Oak.
         2. Species: Cherry.
         3. Species: Maple.
      5. Wall: Finished Raised Hardwood
         1. Species: Oak
         2. Species: Cherry.
         3. Species: Maple.
      6. Wall: Luxury MDF
         1. Color: White.
         2. Color: Black.
         3. Color: Anthracite.
         4. Color: Red.
         5. Color: Amazon.
         6. Color: Metallic Elm.
         7. Color: Sugar Maple.
         8. Color: Walnut.
         9. Color: Oak.
         10. Color: Silver Strands.
         11. Color: Pearl Matrix.
         12. Color: Inox.
         13. Color: Kenya.
         14. Color: Cedar.

\*\* NOTE TO SPECIFIER \*\* Delete ceilings options not required.

* + - 1. Ceilings: White melamine; standard with 4 recessed down lights.
      2. Ceilings: Match cab finish.
      3. Overhead Lights in Car Compartment: Turn ON when door is opened and stay on when in use. Lights shut off by a timer when elevator is not in use.
      4. Elevator Lighting: 4 x Energy Saving LED Cab Lights

\*\* NOTE TO SPECIFIER \*\* 1-1/2 inch sub flooring must include pit depth of 8 inches or more.

* + - 1. Cab Floor: Unfinished 1-1/2 inch (38 mm) plywood sub-flooring.

\*\* NOTE TO SPECIFIER \*\* Delete options for car gate not required.

* + - 1. Cab Entrance Car Gate: Horizontally collapsible accordion style car gate with vinyl panels and three acrylic vision panels.
      2. Cab Entrance Car Gate: Horizontally collapsible accordion style car gate with all acrylic vision panels.
      3. Cab Entrance Car Gate: Automatic 2 speed 4 panel sliding doors; slim door.
      4. Cab Entrance Car Gate: Bi-Fold Gate, white finish.
      5. Cab Entrance Car Gate: Bi-Fold Gate, stainless steel finish.

\*\* NOTE TO SPECIFIER \*\* Delete cab fixtures options not required.

* + - 1. Cab Fixtures: Anodized Clear (Standard).
      2. Cab Fixtures: Anodized Bronze (Standard).
      3. Cab Fixtures: Brushed Stainless Steel.
      4. Cab Fixtures: Brushed Brass.
      5. Cab Fixtures: Blackened Stainless Steel.
    1. Systems and Components:

\*\* NOTE TO SPECIFIER \*\* Delete machine room-less option not required.

* + - 1. Machine Room-less: Not required; Standard Controller outside the hoistway.
      2. Machine Room-less: Required; Controller in hoistway. Check local codes.
      3. Controller: Pre-wired. Tested prior to shipment.
         1. Smooth stops at each landing.
         2. Automatic battery back-up ensuring lift can travel to lower landing in event of a power failure.
         3. Pre-set overload protection to prevent motor overloading.
         4. LED display to monitor output current, frequency, voltage, direction, etc. Also used for error message indication.
      4. Drive Chain: Two No. 60 roller chains. Nominal breaking strength of 9020 lbs. (4091 kg) each.
      5. Leveling Device: The lift shall be provided with an anti-creep device which will maintain the carriage level within 1/2 inch (13 mm) of each landing.
         1. All limit switches and leveling device switches shall be located in a position to be inaccessible to unauthorized persons. The switches shall be located in the hoistway. Micro-switches shall not be used.
      6. Guide Rail and Brackets: Steel 6 lb/ft (8.9 kg/m) "T" guide rails and brackets securely fastened to building structure. Car sling fabricated from steel members with adequate bracing to support platform and cab.
      7. Wiring and Electrical Connections: Comply with applicable codes. Insulated wiring with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire way if located outside unit enclosure. Use quick disconnect harnesses when possible.
      8. Door Locks: CSA and UL approved electrical mechanical elevator interlock.
    1. Emergency Devices:
       1. Terminal Limits. Stops elevator if it overruns limits at top or bottom landing.
       2. Final limits: Redundant safety feature if elevator overruns terminal limits at top or bottom. The final limit stops elevator and renders automatic controls inoperable. Elevator must then be serviced to determine and correct the fault.
       3. Pit Switch: Disables elevator for servicing purposes.
       4. Interlocks: Hoistway doors remain locked when car is not at floor and prevent elevator from running until doors are closed and locked.
       5. Slack/Broken Cable Safety Device: If drive cable slackens or breaks, device locks car onto T-rails, preventing car from falling.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. RESIDENTIAL ELEVATOR

\*\* NOTE TO SPECIFIER \*\* Delete model not required. The mini has the smallest footprint and the Plus models have the largest.

* + 1. Residential Elevator: Savaria Vuelift.
       1. Model: Vuelift Mini. Acrylic cab and landing panels.
       2. Model: Vuelift Mini. Low iron glass cab and landing panels.
       3. Model: Vuelift Round (medium size). Acrylic cab and landing panels.
       4. Model: Vuelift Octagonal (medium size). Acrylic cab and landing panels.
       5. Model: Vuelift Octagonal (medium size). Low iron glass cab and landing panels.
       6. Model: Vuelift Round Plus. Low iron glass cab and landing panels.
       7. Model: Vuelift Octagonal Plus. Low iron glass cab and landing panels.
    2. Equipment, incidental material, and labor required for complete, operable hydraulic elevator installation. Erected, installed, adjusted, tested, and placed in operation by the elevator system manufacturer or manufacturer's authorized installer.
    3. Performance: Designed and tested per ASME A17.1 part V. Testing to consist of loading platform to rated capacity for several cycles insuring proper operation. Correct mechanical failures and defects.
    4. Preparatory work to receive elevator specified shall be the work provided by others:
       1. Permanent 230 VAC, 30 amp single phase power to operate lift provided from a lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. 115 VAC, 15 amp single phase power to operate lighting circuit. Refer to Drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
       2. Finished floors including floor cutouts at landings.
       3. Working telephone jack near the electrical disconnects.
       4. Substantial, level pit floor slab as indicated on lift contractor's shop drawings.
    5. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load option not required.  
For "Vuelift Mini" in glass or acrylic select 500 lbs.  
For "Vuelift (medium size)" round or octagonal in acrylic select 840lbs.  
For "Vuelift Plus" models or the "Vuelift Octagonal (medium size)" in glass select 950 lbs.

* + - 1. Rated Load and rated speed:
         1. 500 lbs (227 kg) / 30 fpm (0.15 m per s).
         2. 840 lbs (341 kg) / 32 fpm (0.16 m per s).
         3. 950 lbs (431 kg) / 40 fpm (0.20 m per s).

\*\* NOTE TO SPECIFIER \*\* Delete car floor area option not required.

* + - 1. Car Floor Area: 8.25 sq ft (0.76 sq m). Vuelift Mini (acrylic or glass).
      2. Car Floor Area: 13.09 sq ft (1.22 sq m). Round medium.
      3. Car Floor Area: 12.83 sq ft (1.19 sq m). Octagonal medium (acrylic or glass).
      4. Car Floor Area: 15 sq ft (1.4 sq m). Round Plus only.
      5. Car Floor Area: 14 sq ft (1.31 sq m). Octagonal Plus.

\*\* NOTE TO SPECIFIER \*\* Delete car height option not required.  
Select 78 inch for "Vuelift Mini".  
Select 84 inch for "Vuelift (medium size)" and "Vuelift Plus" models with standard cab height.  
If applicable select "76.5" for custom short car. Available on "Vuelift (medium size)" acrylic models only.

* + - 1. Car Height: 78 inches (1981 mm); fits in overhead of 96 inches (2438 mm); Vuelift Mini only.
      2. Car Height: 84 inches (2134 mm); fits in overhead of 108 inches (2743 mm).
      3. Car Height: 76.5 inches (1943 mm); short car option for medium size acrylic units. Fits in overhead of 96 inches (2438 mm).
      4. Operation: Automatic.
      5. Power supply: 230 Volt, Single Phase, 30 Amps.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel is 50 feet (15.24 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required.

* + - 1. Levels Serviced: 2.
      2. Levels Serviced: 3.
      3. Levels Serviced: 4.
      4. Levels Serviced: 5.
      5. Levels Serviced: 6.

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required. 90 degree not available for the "Vuelift Mini" model.

* + - 1. Cab Configuration:
         1. Enter/exit same side.
         2. Straight through cab
         3. 90 degree.
      2. Lighting supply: 115 Volt, 1 Phase, 15 Amps.

\*\* NOTE TO SPECIFIER \*\* Delete cable option not required. 1/4 inch is used for "Vuelift Mini" model and 3/8 inch is used for "Vuelift (medium size)" and "Vuelift Plus" models.

* + - 1. Zinc coated steel elevator cable: Suspension 2 x 1/4 inch (6.4 mm) diameter.
      2. Zinc coated steel elevator cable: Suspension 2 x 3/8 inch (9.5 mm) diameter.
      3. Drive: Pre-programmed variable frequency for smooth start and stops
      4. Car Operating Panel: Automatic push buttons. Emergency stop/alarm button.
      5. Phone: Integrated phone with keypad and speaker.
      6. Hall Call Stations: Keyless with illuminated call button and matching cover plate for each landing.
      7. Emergency Operation: The car shall be equipped with a battery-operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. The battery shall be the rechargeable type with an automatic recharging system. A manual lowering device shall be located in a secure location near the upper landing.

\*\* NOTE TO SPECIFIER \*\* Delete pit option not required.

* + - 1. Pit: Recessed pit for a level finish at bottom landing.

\*\* NOTE TO SPECIFIER \*\* Delete pit depth option not required. 4 inch mini pit or step in, is needed for buffer spring application where required by AHJ (Authority Having Jurisdiction) or for units over habitable space (i.e. penthouse application). The Vuelift Mini model does not have a buffer springs option for a 3 inch pit depth. Buffer springs are available for all models when using a 4 inch pit depth.

* + - * 1. Pit Depth: 3 inch (76 mm)
        2. Pit Depth: 4 inch (102 mm)
      1. Pit: Step in.

\*\* NOTE TO SPECIFIER \*\* Delete step in options not required. The three inch step in has no buffer springs, all models. The 4 inch step in can have buffer springs, if required, all models.

* + - * 1. 3 inch (76 mm) step in
        2. 4 inch (102 mm) step in
      1. Cab Enclosure:

\*\* NOTE TO SPECIFIER \*\* Delete walls options not required. Match your model selection

* + - * 1. Walls: Textured powder coated steel frame with acrylic panels
        2. Walls: Textured powder coated steel frame with low iron laminated silica glass panels.
        3. Ceiling: Textured powder coated steel; standard.
        4. Overhead Lights in Car Compartment: Turn ON when door is opened and stay on when in use. Lights shut off by a timer when elevator is not in use.
        5. Elevator lighting: Recessed energy saving led cab lights

\*\* NOTE TO SPECIFIER \*\* Delete cab floor option not required. 3/4 or 1/2 inch is for all Vuelift models except for "Vuelift Mini". For "Vuelift Mini" select 1/2 inch.

* + - * 1. Cab Floor: Unfinished 3/4 inch (19 mm) plywood sub-flooring with carpet.
        2. Cab Floor: Unfinished 1/2 inch (13 mm) plywood sub-flooring with carpet.

\*\* NOTE TO SPECIFIER \*\* Delete car gate option not required. Automatic bi-fold available for "Vuelift (medium size)" and "Vuelift Plus" models Manual sliding for "Vuelift Mini" model

* + - * 1. Car Gate: Automatic bi-fold gate.
        2. Car Gate: Manual sliding curved cab door.
    1. Hoistway:

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required. Match your model selection

* + - 1. Finish: Textured powder coated steel frame with acrylic panels.
      2. Finish: Textured powder coated steel frame with low iron laminated silica glass panels.
      3. Landing doors: Clear vision manual swing-out doors.
    1. Systems and Components:
       1. Machine Room: Required, controller outside hoistway.
       2. Controller: Pre-wired. Tested prior to shipment.
          1. Smooth stops at each landing.
          2. Automatic battery back-up ensuring lift travels to lower landing in event of power failure.
       3. Drivetrain: Winding drum.

\*\* NOTE TO SPECIFIER \*\* Delete motor options not required. Match motor selection with capacity of model chosen.

* + - 1. Motor: 3.0 HP with integrated brake. 500 lbs (226 kg).
      2. Motor: 4.7 HP with integrated brake. 840 lbs (341 kg).
      3. Motor: 4.7 HP with integrated brake. 950 lbs (431 kg).

\*\* NOTE TO SPECIFIER \*\* Delete transmission option not required. Helical bevel drive is for all Vuelift models except for "Vuelift Mini". For "Vuelift Mini" select self-locking worm gear drive.

* + - 1. Transmission: Ultra-low vibration 3-stage right angle helical bevel drive.
      2. Transmission: Self-locking worm gear drive (Vuelift Mini only)
      3. Limit and Leveling Device Switches: Located in position to be inaccessible to unauthorized persons. Located in hoistway.
      4. Wiring and Electrical Connections: Comply with applicable codes. Insulated wiring with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire way if located outside unit enclosure. Use quick disconnect harnesses when possible.
      5. Door Locks: Xtronics E10983-1901 approved electrical mechanical elevator interlock certified in compliance with A17.1 sections 2.12.4.3.
    1. Emergency Devices:
       1. Terminal Limits. Stops elevator if it overruns limits at top or bottom landing.
       2. Final limits: Redundant safety feature if elevator overruns terminal limits at top or bottom. The final limit stops elevator and renders automatic controls inoperable. Elevator must then be serviced to determine and correct the fault.
       3. Pit Switch: Disables elevator for servicing purposes.
       4. Interlocks: Hoistway doors remain locked when car is not at floor and prevent elevator from running until doors are closed and locked.
       5. Type A Instantaneous Safeties: Per ASME A17.1 Sect 2.17.8.1 and 2.17.5.1 for instantaneous breaking in case of free fall or over speed. Quantity of 2.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL WHEELCHAIR LIFT
     1. Hydraulic Vertical Platform Lift: Manufactured by Savaria Lifts Inc. A roped hydraulic drive with lifting platform.
     2. Provide equipment, incidental material, and labor required for complete, operable roped hydraulic wheelchair lift installation. Erected, installed, adjusted, tested, and placed in operation by lift system manufacturer, or authorized installer.
        1. Standards Compliance:

\*\* NOTE TO SPECIFIER \*\* Select code and accessibility standard required.

* + - * 1. ASME A18.1 and ADAAG compliant; USA.
        2. ASME A18.1 and A117.1 compliant; USA.
        3. ASME A18.1 only; USA.
        4. CSA B355; Canada.
    1. Preparatory work to receive lifts is part of the work of other sections:
       1. Power Supply: Operate lift from lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. Refer to drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
       2. Permanent 220 VAC, 40 amp single phase power or 208 VAC, 30 amp, 3 phase power Lighting Circuit: 110 VAC, 15 amp single phase power to operate lighting circuit.
       3. Plumb and square hoistway. Smooth interior surfaces, including fascias or furring of hoistway interior.
       4. Rough openings per lift subcontractor's shop drawings.
       5. Substantial, level pit floor slab as indicated on lift contractor's shop drawings.
    2. Characteristics:

\*\* NOTE TO SPECIFIER \*\* Delete rated load options not required.

* + - 1. Rated Load: 750 lbs (350 kg)
      2. Rated Load: 1050 lbs (476 kg) . Accepted under ASME A18.1 2008 and 2011 code and Canada.
      3. Rated Load: 1400 lbs (635 kg). Canada only
      4. Rated Speed: 30 fpm (0.15 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete platform configuration options not required.

* + - 1. Platform Configuration: Enter/exit same side.
      2. Platform Configuration: Enter/exit front/rear.
      3. Platform Configuration: 90 degree exit.

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions options not required.  
For a 90 degree application in USA, size 42 x 60 inches (1067 x 1524 mm) must be selected.  
For a 90 degree application in Canada size 42 x 60 inches (1067 x 1524 mm) or 48 x 60 inches (1219 x 1524 mm) must be selected.

* + - 1. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).
      2. Car Dimensions (WxD): 36 x 54 inches (914 x 1371 mm).
      3. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).
      4. Car Dimensions (WxD): 42 x 60 inches (1067 x 1524 mm).
      5. Car Dimensions (WxD): 48 x 60 inches (1219 x 1524 mm); Canada only.
      6. Car Dimensions (WxD): 35 x 84 inches (889 x 2134 mm); Canada only.

\*\* NOTE TO SPECIFIER \*\* Delete levels serviced options not required.

* + - 1. Levels Serviced: 2
      2. Levels Serviced: 3
      3. Levels Serviced: 4

\*\* NOTE TO SPECIFIER \*\* Delete pit depth option not required. 8 inches pit depth is for units with rated capacity of 750 lbs (350 kg) or 1050 lbs (476 kg). 14 inches pit depth is for units rated capacity of 1400 lbs (635 kg). Cars with dimensions of 42 by 60 inches, 48 by 60 inches, and 35 by 84 inches automatically get a pit depth of 14 inches.

* + - 1. Pit Depth: 8 inches (203 mm).
      2. Pit Depth: 14 inches (356 mm).

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Travel distance is limited to 14 feet (4.27 m) or less for commercial use in the United States. Maximum travel distance is 23 feet (7.01 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings
      3. Operation: Constant pressure.

\*\* NOTE TO SPECIFIER \*\* Delete power supply option not required.

* + - 1. Power Supply: 220 Volt, 1 Phase, 40 Amps.
      2. Power Supply: 208 Volt, 3 Phase, 30 Amps.
      3. Drive System: 2:1 roped hydraulic.
      4. Paint: Powder coat finish.
      5. Emergency Power: Battery operation in down direction.
      6. Controller: Electronic.
      7. Motor/Pump: 220VAC, 5HP max.
      8. Manual Lowering: Located inside lockable hydraulic tank in machine room.
    1. Car Enclosure:

\*\* NOTE TO SPECIFIER \*\* Delete walls not required.

* + - 1. Wall Finish: MDF (Standard).
      2. Wall Finish: Durable Melamine wall panels; standard.
      3. Wall Finish: Plastic Laminate Panels.

\*\* NOTE TO SPECIFIER \*\* Finishes below only available for 35 by 84 inch cars only Delete type not required or both.

* + - 1. Wall Finish: Steel Cab in Architectural White.
      2. Wall Finish: Steel Cab in Architectural Black.
      3. Ceiling Finish: White egg-crate ceiling. 4 recessed incandescent down lights.
      4. Clear anodized aluminum car trim.
      5. Hands free telephone integrated in COP.
      6. Handrail: Single stainless steel handrail. 1-1/2 inches (38 mm) diameter with both ends returned to side guard. Located on control wall of cab.
      7. Control Panel: Stainless steel control panel with tactile identifications; keyed stations.
      8. Cab Floor: Unfinished 3/4 inch (19 mm) plywood sub-flooring.

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - 1. Cab Floor Mat or Recess: Plywood sub-flooring, anti-skid mat 1/8 inch (3 mm) thick.
      2. Cab Floor Mat or Recess: Plywood sub-flooring by 1/8 inch (3 mm).
      3. Cab Floor Mat or Recess: Plywood sub-flooring by 1/4 inch (6 mm).
      4. Cab Floor Mat or Recess: Plywood sub-flooring by 3/8 inch (9.5 mm).
      5. Cab Floor Mat or Recess: Plywood sub-flooring by 1/2 inch (12.7 mm).
      6. Cab Floor Mat or Recess: Plywood sub-flooring by 5/8 inch (16 mm).
    1. Hoistway Doors:
       1. First Landing door:
          1. 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire rated assembly.
          2. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic concealed 24 V door opener; battery back-up.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. 42 inch wide door should be used on 90 degree side only and on narrow side of platforms with 42 inch widths.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
        3. Concealed electro/mechanical interlock.
        4. Concealed hinges.

NOTE TO SPECIFIER \*\* Delete second landing if not required.

* + - 1. Second Landing door:
         1. 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire rated assembly.
         2. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic concealed 24 V door opener; battery back-up.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. 42 inch wide door should be used on 90 degree side only and on narrow side of platforms with 42 inch widths.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
        3. Concealed electro/mechanical interlock.
        4. Concealed hinges.

\*\* NOTE TO SPECIFIER \*\* Delete third landing if not required.

* + - 1. Third Landing door:
         1. 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire rated assembly.
         2. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic concealed 24 V door opener; battery back-up.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. 42 inch wide door should be used on 90 degree side only and on narrow side of platforms with 42 inch widths.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
        3. Concealed electro/mechanical interlock.
        4. Concealed hinges.
      1. Upper Landing Door:
         1. 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire rated assembly.
         2. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic concealed 24 V door opener; battery back-up.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. 42 inch wide door should be used on 90 degree side only and on narrow side of platforms with 42 inch widths.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
        3. Concealed electro/mechanical interlock.
        4. Concealed hinges.
    1. Car Operating Panel:
       1. Consist of constant pressure buttons, emergency stop/alarm button, on/off key switch, when applicable, and emergency light mounted on removable stainless steel panel; type 304 No. 4 stainless steel finish.
       2. Digital floor indicator in cab.
       3. Emergency Operation: Equip with battery operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure. Battery: rechargeable type with automatic recharging system. Manual Lowering Device: Located inside lockable hydraulic tank in machine room.
    2. Pumping Unit and Control:
       1. Locate in separate machine room. Pre-wired. Tested prior to shipment.
       2. Smooth stops at each landing.
       3. Submersible pump and motor.
       4. Adjustable pressure relief valve.
       5. Manually Operable Down Valve: To lower lift in event of emergency. Valve to be activated from machine room.
       6. Pressure gauge isolating valve, manually operable.
       7. Gate valve to isolate cylinder from pump unit.
       8. Electro Proportional Valve: Accurate smooth starts/stops in both directions.
       9. Emergency lowering by battery power, from car control.
    3. Cylinder and Plunger:
       1. Cylinder: Steel pipe of sufficient thickness and suitable safety margin. Equip top cylinder head with an internal guide ring and self-adjusting packing.
       2. Plunger: Solid steel shaft of proper diameter machined true and smooth. Provided with stop electrically welded to bottom preventing plunger from leaving cylinder.
    4. Aircraft Cable: Two, Minimum breaking strength 14,400 lb (6545 kg) each.
    5. Leveling Device: Anti-creep device which maintains carriage level within 1/2 inch (13 mm) of each landing.
       1. Limit and Leveling Switches: To be inaccessible to unauthorized persons.
    6. Guide Yoke: 2:1 supplied with a sheave, guide shoes, bearings, and guards.
    7. Call Stations: Flush, surface or door frame mounted landing call/send stations.

\*\* NOTE TO SPECIFIER \*\* Delete key switch option not required.

* + - 1. Key Switch: Keyless.
      2. Key Switch: Keyed; removable in off position.
      3. Key Switch: Keyed; removable in on/off position.
    1. Terminal Stopping Devices: At top and bottom of runway to stop car positively and automatically. Micro switches are not be used.
    2. Guide Rails: Steel 8 lb/ft (11.9 kg/m) to guide platform and sling.
    3. Car Sling: Steel fabrication with bracing to support platform and car enclosure. Guide shoes to be mounted on top and bottom of car sling to engage guide rails.
    4. Wiring and Electrical Connections: Comply with applicable codes. Insulated with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire ways if outside the unit enclosure. Use quick disconnect harnesses when possible.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL WHEELCHAIR LIFT
     1. Hydraulic Vertical Platform Lifts: Savaria V1504-STD.
     2. Hydraulic Vertical Platform Lift: A hydraulic tower with a lifting platform. Used indoor or outdoor and commercial or residential applications.
     3. Provide equipment, incidental material, and labor required for complete, operable roped hydraulic wheelchair lift installation. Erected, installed, adjusted, tested, and placed in operation by lift system manufacturer, or authorized installer.
        1. Standards Compliance:

\*\* NOTE TO SPECIFIER \*\* Select code and accessibility standard required.

* + - * 1. ASME A18.1 and ADAAG compliant; USA.
        2. ASME A18.1 and A117.1 compliant; USA.
        3. ASME A18.1 only; USA.
        4. CSA B355; Canada.
    1. Preparatory work to receive lifts is part of the work of other sections:
       1. Permanent 120 VAC, 20 amp single phase power to operate lift from lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. Refer to drawings for power specifications and location of disconnects. Temporary power may be provided to expedite installation of lift.
       2. Plumb and square hoistway. Smooth interior surfaces, including fascias or furring of hoistway interior.
       3. Rough openings per lift contractor's shop drawings.
       4. Substantial, level pit floor slab as indicated on lift contractor's shop drawings.
    2. Characteristics:
       1. Rated Load: 750 lb (340 kg).
       2. Rated Speed: 20 fpm (0.10 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions options not required.

* + - 1. Car Dimensions (WxD): 36 x 54 inches (914 x 1371 mm); standard.
      2. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).

\*\* NOTE TO SPECIFIER \*\* To meet ADA on 90 degree application in USA one of the two following options must be selected.

* + - 1. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).

\*\* NOTE TO SPECIFIER \*\* To meet ANSI A117.1 on 90 degree application in USA the following car dimensions option must be selected.

* + - 1. Car Dimensions (WxD): 42 x 60 inches (1067 x 1524 mm).

\*\* NOTE TO SPECIFIER \*\* Delete levels serviced options not required.

* + - 1. Levels Serviced: 2
      2. Levels Serviced: 3
      3. Levels Serviced: 4

\*\* NOTE TO SPECIFIER \*\* Delete car configuration options not required.

* + - 1. Car Configuration: Enter/Exit same side.
      2. Car Configuration: 90 degree exit.
      3. Car Configuration: Front/rear exit.

\*\* NOTE TO SPECIFIER \*\* Delete pit depth option not required.

* + - 1. Pit Depth: 3 inches (76 mm) - Standard.
      2. Pit Depth: 0 inches (0 mm) - Fixed Ramp Required.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Travel distance is limited to 14 ft (4.27 m) or less for commercial use in the United States. Maximum travel distance is 23 ft (7.01 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ mm).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Delete powder coat finish not required.

* + - 1. Powder Coat Finish: Almond beige - Standard
      2. Powder Coat Finish: Optional Color; From manufactures color chart
      3. Powder Coat Finish: Custom Color; Provide color sample to manufacturer
      4. Operation: Constant pressure.
      5. Power Supply: 110 volt, 20 amp, 1 phase, 60 Hz.
      6. Drive System: 2:1 Roller chain hydraulic.

\*\* NOTE TO SPECIFIER \*\* Delete emergency power option not required.

* + - 1. Emergency Power: Battery operation in down direction; standard.
      2. Emergency Power: 24VDC Battery raising and lowering.
      3. Controller: Relay logic based controller.
      4. Motor/Pump: 3 HP (2.24 kw), gear type.
      5. Manual Lowering: Outside the hoistway at lower landing.
    1. Car Enclosure Cab Configuration:

\*\* NOTE TO SPECIFIER \*\* Delete side guards and Platform options not required. Full car enclosure option is not available on platforms wider than 38 inches. Enclosed cabs must have a full 80 inches height door.

* + - 1. Side Guards of Platform: Full car, steel frame, powder coat finish, and steel panel inserts, to 42 inches (1067 mm) high.
      2. Side Guards of Platform: Enclosed cab, steel frame, powder coat finish, and steel panel inserts to 80 inches (2032 mm) above upper landing. Steel ceiling with egg crate insert and 4 x LED lights.
      3. Side Guards of Platform: Enclosed cab, steel frame with Formica finish to 80 inches (2032 mm) above upper landing. Formica choice to be selected from manufactures offerings. Steel ceiling with egg crate insert and 4 x LED lights.
    1. Doors and Gates:
       1. First landing door:

\*\* NOTE TO SPECIFIER \*\* Delete door type option not required.

* + - * 1. Door Type: 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire-rated Prodoor with concealed hinges and concealed electro/mechanical interlock.
        2. Door Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
        3. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Automatic doors: Use on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops. Also, for applications with no pit an automatic operator is needed for the lower door.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; concealed 24 volt door opener with battery back-up for fire-rated door.
        3. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening

\*\* NOTE TO SPECIFIER \*\* Delete intermediate landing 1 door if not required.

* + - 1. Intermediate Landing 1 Door:

\*\* NOTE TO SPECIFIER \*\* Delete door type option not required.

* + - * 1. Door Type: 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire-rated Prodoor with concealed hinges and concealed electro/mechanical interlock.
        2. Door Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
        3. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Automatic doors: Use on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; concealed 24 volt door opener with battery back-up for fire-rated door.
        3. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening

\*\* NOTE TO SPECIFIER \*\* Delete intermediate landing 2 door if not required.

* + - 1. Intermediate Landing 2 Door:

\*\* NOTE TO SPECIFIER \*\* Delete door type option not required.

* + - * 1. Door Type: 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire-rated Prodoor with concealed hinges and concealed electro/mechanical interlock.
        2. Door Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
        3. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Automatic doors: Use on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; concealed 24 volt door opener with battery back-up for fire-rated door.
        3. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inches doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
      1. Upper Landing Door/Gate:

\*\* NOTE TO SPECIFIER \*\* Delete door/gate type options not required.

* + - * 1. Door/Gate Type: 80 inches (2032 mm) high 1-1/2 hour UL/ULC fire-rated Prodoor with concealed hinges and a concealed electro/mechanical interlock.
        2. Door/Gate Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
        3. Door/Gate Type: 42 inches (1067 mm) low profile aluminum gate with a concealed electro/mechanical interlock.
        4. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Automatic doors: Use on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; concealed 24 volt door opener with battery back-up for fire-rated door.
        3. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.
        4. Operation: Automatic; surface mounted gate opener for low profile aluminum gate.

\*\* NOTE TO SPECIFIER \*\* Delete door/gate width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door/Gate Width: 36 inches (889 mm)
        2. Door/Gate Width: 42 inches (1067 mm)
    1. Call Stations: Flush, surface or door frame mounted landing call/send stations.

\*\* NOTE TO SPECIFIER \*\* Delete key switch option not required.

* + - 1. Key Switch: Keyless.
      2. Key Switch: Keyed; removable in off position.
      3. Key Switch: Keyed; removable in on/off position.
    1. Car Operation:
       1. Operating Panel: Constant pressure buttons, emergency stop/alarm button, on/off key switch, when applicable, and emergency LED light mounted on a removable stainless steel panel; type 304 No. 4 stainless steel finish.
       2. Auxiliary lighting: Battery operated LED light fixture. Battery to be rechargeable with automatic recharging system.

\*\* NOTE TO SPECIFIER \*\* Delete telephone option not required.

* + - 1. Telephone: Car to be equipped with hand held recessed telephone.
      2. Telephone: Car to be equipped with an ADA Hands free phone.
    1. Pumping Unit and Control:
       1. Enclosed in tower. Pre-wired. Tested prior to shipment.
       2. Controller: Relay logic based operation for ease of maintenance and service.
       3. Adjustable pressure relief valve.
       4. Manually operable down valve to lower lift in event of emergency. Activated from outside of hoistway through a keyed box.
       5. Pressure gauge isolating valve, manually operable.
       6. Gate valve to isolate cylinder from pump unit.
       7. Electrical solenoid for down direction control.
       8. Emergency Operation: Manual lowering device located outside hoistway in a lockable box positioned at lower landing.
    2. Cylinder and Plunger:
       1. Cylinder: Steel pipe of sufficient thickness and suitable safety margin. Equip top cylinder head with an internal guide ring and self-adjusting packing.
       2. Plunger: Solid steel shaft of proper diameter machined true and smooth. Provided with stop electrically welded to bottom preventing plunger from leaving cylinder.
    3. Roller Chains: Two No. 50 roller chains with 5/8 inch (16 mm) pitch. Minimum breaking strength 6100 lb (2773 kg) each.
    4. Leveling Device: Anti-creep device which maintains carriage level within 1/2 inch (13 mm) of each landing.
       1. Limit and Leveling Switches: To be inaccessible to unauthorized persons. Located behind mast wall and accessible through removable panels.
    5. Guide Yoke: 2:1 supplied with idler sheaves, guide shoes, bearings, and guards.
    6. Terminal Stopping Devices: At top and bottom of runway to stop car positively and automatically.
    7. Steel Guide 'C' Rails and Brackets: To guide platform and sling. Rails to part of structural integrity of unit and be integral to mast enclosure, ensuring stability and minimum platform deflection when loaded.
    8. Car Sling: Steel tubing 44 inches (1116 mm) high with bracing to support platform and car enclosure. Roller guide shoes mounted on top and bottom of car sling to engage guide rails. Guide shoes to be roller type with 3 inches (76 mm) diameter wheels. Nylon guide shoes are not be used.
    9. Wiring and Electrical Connections: Comply with applicable codes. Insulated with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire ways if outside the unit enclosure. Use quick disconnect harnesses when possible.
    10. Materials: For exposed parts of lift.
        1. Walls and Ceiling: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 16 GA; or ASTM A 240/A 240M, Type 304. Powder coat paint.
        2. Floor: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 11 GA reinforced with 3/16 inch (4.7 mm) steel edge. Anti-skid grey powder coat paint.
        3. Outdoor Version: Zinc plated, ASTM B633 Type II Fe/Zn8.
        4. Hoistway Doors: Aluminum extrusion 6063 with ASTM A653 galvannealed steel panels, powder coat paint.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL WHEELCHAIR LIFT
     1. Hydraulic Vertical Platform Lifts: Savaria V1504-AL/PE Enclosure:

\*\* NOTE TO SPECIFIER \*\* delete model option not required.

* + - 1. Model V-1504: Aluminum Enclosure.
      2. Model V-1504: Plexiglass Enclosure.
      3. Model V-1504: Tempered Glass Enclosure.
    1. Hydraulic Vertical Platform Lift: Vertical platform lift. Hydraulic tower with lifting platform for indoor or outdoor use and in commercial or residential applications.
    2. Work includes equipment, incidental material, and labor required for complete, operable roped hydraulic wheelchair lift installation; adjusted, tested, and placed in operation by lift system manufacturer, or manufacturer's authorized installer.
       1. Standards Compliance:

\*\* NOTE TO SPECIFIER \*\* Select code and accessibility standard required.

* + - * 1. ASME A18.1 and ADAAG compliant (USA).
        2. ASME A18.1 and A117.1 compliant (USA).
        3. ASME A18.1 only (USA).
        4. CSA B355 (Canada).
    1. The following preparatory work to receive the lifts specified in this section is part of the work of other sections:
       1. Permanent 120 VAC, 20 amp single phase power to operate lift from lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. Refer to drawings for power specifications and location of disconnects. Temporary power may be provided to expedite installation of lift.
       2. Rough openings per lift contractor's shop drawings.
       3. Substantial, level pit floor slab as indicated on lift contractor's shop drawings.
    2. Characteristics:
       1. Rated Load: 750 lb (340 kg).
       2. Rated Speed: 20 fpm (0.10 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions options not required.

* + - 1. Car Dimensions (WxD): 36 x 54 inches (914 x 1371 mm); standard.
      2. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).

\*\* NOTE TO SPECIFIER \*\* To meet ADA on 90 degree application in USA one of the two following options must be selected.

* + - 1. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).

\*\* NOTE TO SPECIFIER \*\* To meet ANSI A117.1 on 90 degree application in USA the following car dimensions option must be selected.

* + - 1. Car Dimensions (WxD): 42 x 60 inches (1067 x 1524 mm).

\*\* NOTE TO SPECIFIER \*\* Delete levels serviced options not required.

* + - 1. Levels Serviced: 2
      2. Levels Serviced: 3
      3. Levels Serviced: 4

\*\* NOTE TO SPECIFIER \*\* Delete car configuration options not required.

* + - 1. Car Configuration: Enter/Exit same side.
      2. Car Configuration: 90 degree exit.
      3. Car Configuration: Front/rear exit.

\*\* NOTE TO SPECIFIER \*\* Delete pit depth option not required.

* + - 1. Pit Depth: 3 inches (76 mm) - Standard.
      2. Pit Depth: 0 inches (0 mm) - Fixed Ramp Required.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Travel distance is limited to 14 ft (4.27 m) or less for commercial use in the United States. Maximum travel distance is 23 ft (7.01 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ mm).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Delete installation environment option not required.

* + - 1. Installation Environment: Indoor (interior install).
      2. Installation Environment: Outdoor (exterior install).

\*\* NOTE TO SPECIFIER \*\* Delete powder coat finish options not required.

* + - 1. Powder Coat Finish: Almond beige; standard.
      2. Powder Coat Finish: Optional Color; from manufactures color chart.
      3. Powder Coat Finish: Custom Color; provide color sample to manufacturer.
      4. Operation: Constant pressure.
      5. Power Supply: 110 volt, 20 amp, 1 phase, 60 Hz.
      6. Drive System: 2:1 Roller chain hydraulic.

\*\* NOTE TO SPECIFIER \*\* Delete emergency power option not required.

* + - 1. Emergency Power: Battery operation in down direction; standard.
      2. Emergency Power: 24VDC Battery raising and lowering.
      3. Controller: Relay logic based controller.
      4. Motor/Pump: 3 HP (2.24 kw), gear type.
      5. Manual Lowering: Outside the hoistway at lower landing.
    1. Car Enclosure: Side Guards of platform are to have a steel frame with a powder coat finish, and steel panel inserts, a minimum of 42 inches (1067 mm) high.
    2. Doors and Gates:
       1. First landing door:
          1. Door type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
          2. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops. Also, for applications with no pit an automatic operator is needed for the lower door.

* + - * 1. Operation: Manual with hydraulic closer
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening

\*\* NOTE TO SPECIFIER \*\* Delete intermediate landing 1 door if not required.

* + - 1. Intermediate Landing 1 Door:
         1. Door type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
         2. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening

\*\* NOTE TO SPECIFIER \*\* Delete intermediate landing 2 door if not required.

* + - 1. Intermediate Landing 2 Door:
         1. Door Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
         2. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
      1. Upper Landing Door/Gate:

\*\* NOTE TO SPECIFIER \*\* Please select door/gate type and remove option not required.

* + - * 1. Door/Gate Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
        2. Door/Gate Type: 42 inches (1067 mm) low profile aluminum gate with a concealed electro/mechanical interlock.
        3. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Use automatic doors on the following platform configurations to meet ADA and ANSI A117.1: 90 Degree, Enter/Exit Same Side, and applications with more than 2 stops.

* + - * 1. Operation: Manual with hydraulic closer
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.
        3. Operation: Automatic; surface mounted gate opener for low profile aluminum gate.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must be used on the 90 degree side. 42 inch doors can also be used on narrow side of platforms with a width of 42 inches.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening
    1. Lift Enclosure:
       1. Made entirely of aluminum for durability against corrosion.
       2. Frames and Panels: Fully assembled and screwed together from inside enclosure for ease of assembling and quick installation time.
       3. Enclosure Inserts: Replaceable from inside of enclosure for ease of service.

\*\* NOTE TO SPECIFIER \*\* Delete Fully enclosed unit option not required. If required, the upper landing must have an 80 inches low profile aluminum door.

* + - 1. Fully Enclosed Unit: Yes. Lift will be fitted with ventilation & dome roof to protect from the outdoor elements.
      2. Fully Enclosed Unit: No. Lift will be open at upper landing.
    1. Call Stations: Flush, surface or door frame mounted landing call/send stations.

\*\* NOTE TO SPECIFIER \*\* Delete key switch option not required.

* + - 1. Key Switch: Keyless.
      2. Key Switch: Keyed; removable in off position.
      3. Key Switch: Keyed; removable in on/off position.
    1. Car Operation:
       1. Operating Panel: Constant pressure buttons, emergency stop/alarm button, on/off key switch, when applicable, and emergency LED light mounted on a removable stainless steel panel; type 304 No. 4 stainless steel finish.
       2. Auxiliary Lighting: Battery operated LED light fixture. Battery to be rechargeable with automatic recharging system.

\*\* NOTE TO SPECIFIER \*\* Delete telephone option not required.

* + - 1. Telephone: Car to be equipped with hand held recessed telephone.
      2. Telephone: Car to be equipped with an ADA Hands free phone.
    1. Pumping Unit and Control:
       1. Enclosed in tower. Pre-wired. Tested prior to shipment.
       2. Controller: Relay logic based operation for ease of maintenance and service.
       3. Adjustable pressure relief valve.
       4. Manually operable down valve to lower lift in event of emergency. Activated from outside of hoistway through a keyed box.
       5. Pressure gauge isolating valve, manually operable.
       6. Gate valve to isolate cylinder from pump unit.
       7. Electrical solenoid for down direction control.
       8. Emergency Operation: Manual lowering device located outside hoistway in a lockable box positioned at lower landing.
    2. Cylinder and Plunger:
       1. Cylinder: Steel pipe of sufficient thickness and suitable safety margin. Equip top cylinder head with an internal guide ring and self-adjusting packing.
       2. Plunger: Solid steel shaft of proper diameter machined true and smooth. Provided with stop electrically welded to bottom preventing plunger from leaving cylinder.
    3. Roller Chains: Two No. 50 roller chains with 5/8 inch (16 mm) pitch. Minimum breaking strength 6100 lb (2773 kg) each.
    4. Leveling Device: Anti-creep device which maintains carriage level within 1/2 inch (13 mm) of each landing.
       1. Limit and Leveling Switches: To be inaccessible to unauthorized persons. Located behind mast wall and accessible through removable panels.
    5. Guide Yoke: 2:1 supplied with idler sheaves, guide shoes, bearings, and guards.
    6. Terminal Stopping Devices: At top and bottom of runway to stop car positively and automatically.
    7. Steel Guide 'C' Rails and Brackets: To guide platform and sling. Rails to part of structural integrity of unit and be integral to mast enclosure, ensuring stability and minimum platform deflection when loaded.
    8. Car Sling: Steel tubing 44 inches (1116 mm) high with bracing to support platform and car enclosure. Roller guide shoes mounted on top and bottom of car sling to engage guide rails. Guide shoes to be roller type with 3 inches (76 mm) diameter wheels. Nylon guide shoes are not be used.
    9. Wiring and Electrical Connections: Comply with applicable codes. Insulated with flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire ways if outside the unit enclosure. Use quick disconnect harnesses when possible.
    10. Materials: Provide the following materials for exposed parts of the lift as indicated.
        1. Walls and Ceiling: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 16 GA; or ASTM A 240/A 240M, Type 304. Powder coat paint.
        2. Floor: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 11 GA reinforced with 3/16 inch (4.7 mm) steel edge. Anti-skid grey powder coat paint.
        3. Outdoor Version: Zinc plated, ASTM B633 Type II Fe/Zn8.
        4. Hoistway Doors: Aluminum extrusion 6063 with ASTM A653 galvannealed steel panels, powder coat paint.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL WHEELCHAIR LIFT
     1. ACME Screw Vertical Platform Lifts: Savaria - Multilift Unenclosed. A vertical platform lift consisting of a tower with a lifting platform for indoor or outdoor use; commercial and residential applications.
     2. Work includes equipment, materials, and labor for operable wheelchair lift installation. Installed, adjusted, tested, and placed in operation by lift system manufacturer, or manufacturer's authorized installer.
        1. Standards Compliance:

\*\* NOTE TO SPECIFIER \*\* Select code and accessibility standard required.

* + - * 1. ASME A18.1 and ADAAG compliant (USA).
        2. ASME A18.1 and A117.1 compliant (USA).
        3. ASME A18.1 only (USA).
    1. Preparatory work to receive lifts specified is part of the work of other sections:
       1. Permanent 120 VAC, 20 amp single phase power to operate lift provided from a lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. Refer to Drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
       2. Rough openings per lift contractor's shop drawings.
       3. Level pit floor slab as indicated on lift contractor's shop drawings.
    2. Characteristics:
       1. Rated Load: 750 lb (340 kg).
       2. Rated Speed: 8 fpm (0.04 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete car dimensions not required.   
 A 90 degree application required to meet ADA, requires a platform size 36 x 60 inches (914 x 1524 mm).   
 A 90 degree application required to meet ANSI A117.1 is not possible with the Multilift since platform size must be 42 inches x 60 inches which isn't available. (Specify a Savaria V-1504).

* + - 1. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).
      2. Car Dimensions (WxD): 36 x 54 inches (914 x 1372 mm).
      3. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).
      4. Levels Serviced: 2.

\*\* NOTE TO SPECIFIER \*\* Delete car configuration option not required.

* + - 1. Car Configuration: Front/rear exit.
      2. Car Configuration: 90 degree exit.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel per code is 60 inches (1524 mm). Capable travel is 72 inches (1829 mm).

* + - 1. Travel:\_\_\_\_ inches (\_\_\_\_ mm).
      2. Travel: To be determined by the Architect or as stated on the Drawings
      3. Pit Depth: 0 inch (0 mm); automatic fold up ramp provided.
      4. Powder Coat Finish: Almond beige.
      5. Operation: Constant pressure.
      6. Power Supply: 120 volt, 20 amp, 1 phase, 60 Hz.
      7. Drive System: ACME screw and back-up nut
      8. Manual Emergency Operation: Manual hand crank to lower or raise platform.

\*\* NOTE TO SPECIFIER \*\* Delete emergency operation requirement.

* + - 1. Emergency Power: No battery backup; standard.
      2. Emergency Power: 24 VDC Battery raising and lowering.
      3. Controller: Relay logic based controller.
    1. Car Enclosure: Side Guards of platform to have a steel frame with powder coat finish and steel panel inserts 42 inches (1067 mm) high.
    2. Gates:
       1. Lower Landing Platform Gate: 42 inches (1067 mm) high platform gate with concealed electro/mechanical interlock.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Automatic doors/gates should be used on 90 Degree platform configurations to meet ADA.

* + - * 1. Operation: Manual.
        2. Operation: Automatic; surface mounted gate opener for platform gate.
        3. Gate Width: 36 inches (889 mm).
      1. Upper landing Gate: 42 inches (1067 mm) low profile aluminum gate with concealed electro/mechanical interlock.
         1. Flush closing operation with hoistway side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Automatic doors/gates should be used on 90 Degree platform configurations to meet ADA.

* + - * 1. Operation: Manual.
        2. Operation: Automatic; surface mounted gate opener for platform gate.

\*\* NOTE TO SPECIFIER \*\* delete gate width option not required. A 42 inches wide door must and can only be used on the 90 degree side.

* + - * 1. Gate Width: 36 inches (889 mm).
        2. Gate Width: 42 inches (1067 mm).
    1. Call Stations: Flush, surface or door frame mounted landing call/send stations.

\*\* NOTE TO SPECIFIER \*\* Delete key switch option not required.

* + - 1. Key Switch: Keyless.
      2. Key Switch: Keyed; removable in off position.
      3. Key Switch: Keyed; removable in on/off position.
    1. Car Operation:
       1. Operating Panel: Constant pressure buttons, emergency stop button and an on/off key switch, when applicable.
       2. Auxiliary lighting: Battery operated. Rechargeable with automatic recharging system.
    2. Acme Screw Drive: 1 inch (25 mm) diameter and back-up nut.
    3. Stopping Device: Limit switches to be inaccessible to unauthorized persons. Located behind mast wall and accessible through removable panels.
    4. Terminal Stopping Device: At top and bottom of runway stopping car positively and automatically.
    5. Guide Rails and Brackets: Guides platform and sling and form part of unit structural integrity and be integral to mast enclosure, ensuring stability and minimum platform deflection when loaded.
    6. Car Sling: Steel tubing 42 inches high (1070 mm). Bracing to support platform and car enclosure. Roller type guide shoes on top and bottom of car sling engage guide rails with 3 inches (76 mm) diameter wheels for better ride quality and durability.
    7. Wiring and Electrical Connections: Comply with applicable codes. Insulated, flame-retardant and moisture proof outer covering. Run in conduit, or electrical wire ways.
    8. Materials: For exposed parts of the lift as indicated.
       1. Walls and Ceiling: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 16 GA; or ASTM A 240/A 240M, Type 304. Powder coat paint.
       2. Floor: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 11 GA reinforced with 3/16 inch (4.7 mm) steel edge. Anti-skid grey powder coat paint.
       3. Outdoor Version: Zinc plated, ASTM B633 Type II Fe/Zn8.
       4. Hoistway Doors: Aluminum extrusion 6063 with ASTM A653 galvannealed steel panels, powder coat paint.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL WHEELCHAIR LIFT
     1. Screw Vertical Platform Lifts: Savaria - Multilift Enclosure.

\*\* NOTE TO SPECIFIER \*\* Please select model type

* + - 1. Model: Multilift; Aluminum Enclosure.
      2. Model: Multilift; Plexiglass Enclosure.
      3. Model: Multilift; Tempered Glass Enclosure.
    1. Screw Vertical Platform Lift: A vertical platform lift consisting of a tower with a lifting platform to be used indoor or outdoor and commercial and residential applications.
    2. Work includes equipment, material and labor, operable ACME screw drive wheelchair lift installation. Installed, adjusted, tested, and placed in operation by lift system manufacturer, or manufacturer's authorized installer.
       1. Standards Compliance:

\*\* NOTE TO SPECIFIER \*\* Select code and accessibility standard required.

* + - * 1. ASME A18.1 and ADAAG compliant (USA).
        2. ASME A18.1 and A117.1 compliant (USA).
        3. ASME A18.1 only (USA).
    1. Preparatory work to receive lifts specified is part of the work of other sections:
       1. Permanent 120 VAC, 20 amp single phase power to operate lift provided from a lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. Refer to Drawings for power specifications and disconnect locations. Temporary power may be provided to expedite installation of lift.
       2. Rough openings per lift contractor's shop drawings.
       3. Level pit floor slab as indicated on lift contractor's shop drawings.
    2. Characteristics:
       1. Rated Load: 750 lb (340 kg).
       2. Rated Speed: 8 fpm (0.04 m/s).

\*\* NOTE TO SPECIFIER \*\* Delete platform size not required.  
A 90 degree application in USA platform size 36 x 60 inches (914 x 1524 mm) must be selected.  
A 90 degree application required to meet ANSI A117.1 is not possible on Multilift since platform size must be 42 inches x 60 inches which isn't available (Please spec a Savaria V-1504).

* + - 1. Car Dimensions (WxD): 36 x 48 inches (914 x 1219 mm).
      2. Car Dimensions (WxD): 36 x 54 inches (914 x 1372 mm).
      3. Car Dimensions (WxD): 36 x 60 inches (914 x 1524 mm).
      4. Levels Serviced: 2.

\*\* NOTE TO SPECIFIER \*\* Delete car configuration option not required.

* + - 1. Car Configuration: Front/rear exit.
      2. Car Configuration: 90 degree exit.

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel per code is 60 inches (1524 mm). Capable travel is 72 inches (1829 mm).

* + - 1. Travel:\_\_\_\_inches (\_\_\_\_ mm).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Delete pit depth option not required.   
For applications with no pit an automatic operator is needed for lower door to meet ANSI A117.1.

* + - 1. Pit Depth: 3 inches (76 mm); standard.
      2. Pit Depth: 0 inch (0 mm); fixed ramp required.
      3. Powder Coat Finish: Almond beige.
      4. Operation: Constant pressure.
      5. Power Supply: 120 volt, 20 amp, 1 phase, 60 Hz.
      6. Drive System: ACME screw and back-up nut.
      7. Manual Emergency Operation: Manual hand crank to lower or raise platform.

\*\* NOTE TO SPECIFIER \*\* Delete emergency operation requirement.

* + - 1. Emergency Power: No battery backup; standard.
      2. Emergency Power: 24 VDC Battery raising and lowering.
      3. Controller: Relay logic based controller.
    1. Car Enclosure: Side Guards of platform shall have a steel frame with a powder coat finish and steel panel inserts to a minimum of 42 inches (1067 mm) high.
    2. Doors and Gates:
       1. First Landing Door:
          1. Door Type: 80 inches (2032 mm) low profile aluminum door with a concealed electro/mechanical interlock.
          2. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Use automatic doors on 90 degree platform configurations to meet ADA. Also, for applications with no pit an automatic operator is needed for lower door.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.

\*\* NOTE TO SPECIFIER \*\* Delete door width option not required. A 42 inch wide door must and can only be used on the 90 degree side.

* + - * 1. Door Width: 36 inches (889 mm) clear opening.
        2. Door Width: 42 inches (1067 mm) clear opening.
      1. Upper Landing Door/Gate:

\*\* NOTE TO SPECIFIER \*\* Delete door gate type option not required.

* + - * 1. Door/Gate Type: 80 inches (2032 mm) low profile aluminum door with concealed electro/mechanical interlock.
        2. Door/Gate Type: 42 inches (1067 mm) low profile aluminum gate with concealed electro/mechanical interlock.
        3. Flush closing operation with enclosure side.

\*\* NOTE TO SPECIFIER \*\* Delete operation option not required. Automatic doors/gates should be used on 90 Degree platform configurations to meet ADA.

* + - * 1. Operation: Manual with hydraulic closer.
        2. Operation: Automatic; surface 24 volt door opener with battery back-up for low profile aluminum door.
        3. Operation: Automatic; surface mounted gate opener for low profile aluminum gate.

\*\* NOTE TO SPECIFIER \*\* delete gate width option not required. A 42 inches wide door must and can only be used on the 90 degree side.

* + - * 1. Gate Width: 36 inches (889 mm).
        2. Gate Width: 42 inches (1067 mm).
    1. Call Stations: Flush, surface or door frame mounted landing call/send stations.

\*\* NOTE TO SPECIFIER \*\* Delete key switch option not required.

* + - 1. Key Switch: Keyless.
      2. Key Switch: Keyed; removable in off position.
      3. Key Switch: Keyed; removable in on/off position.
    1. Lift Enclosure:
       1. Made entirely of aluminum for durability against corrosion.
       2. Enclosure frames and panels fully assembled and screwed together from inside enclosure for ease of assembling and quick installation time.
       3. Enclosure inserts replaceable from inside of enclosure for ease of service.

\*\* NOTE TO SPECIFIER \*\* Delete fully enclosed unit notrequired. If required upper landing must have an 80 inches (2032 mm) low profile aluminum door.

* + - 1. Fully Enclosed Unit: Yes. Lift will be fitted with ventilation and dome roof to protect from outdoor elements.
      2. Fully Enclosed Unit: No. Lift will be open at upper landing.
    1. Car Operation:
       1. Operating Panel: Constant pressure buttons, emergency stop button and an on/off key switch, when applicable.
       2. Auxiliary lighting: Battery operated. Rechargeable with automatic recharging system.
    2. Acme Screw Drive: 1 inch (25 mm) diameter and back-up nut.
    3. Stopping Device: Limit switches to be inaccessible to unauthorized persons. Located behind mast wall and accessible through removable panels.
    4. Terminal Stopping Device: At top and bottom of runway stopping car positively and automatically.
    5. Guide Rails and Brackets: Guides platform and sling and form part of unit structural integrity and be integral to mast enclosure, ensuring stability and minimum platform deflection when loaded.
    6. Car Sling: Steel tubing 42 inches high (1070 mm). Bracing to support platform and car enclosure. Roller type guide shoes on top and bottom of car sling engage guide rails with 3 inches (76 mm) diameter wheels for better ride quality and durability.
    7. Wiring and Electrical Connections: Comply with applicable codes. Insulated, flame-retardant and moisture proof outer covering. Run in conduit, or electrical wire ways.
    8. Materials: For exposed parts of the lift as indicated.
       1. Walls and Ceiling: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 16 GA; or ASTM A 240/A 240M, Type 304. Powder coat paint.
       2. Floor: Rolled steel sheet, ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish, 11 GA reinforced with 3/16 inch (4.7 mm) steel edge. Anti-skid grey powder coat paint.
       3. Outdoor Version: Zinc plated, ASTM B633 Type II Fe/Zn8.
       4. Hoistway Doors: Aluminum extrusion 6063 with ASTM A653 galvannealed steel panels, powder coat paint.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. COMMERCIAL PASSENGER ELEVATOR
     1. System Description: Equipment, material, and labor for, operable roped hydraulic passenger elevator installation. Installed, adjusted, tested, and placed in operation by system manufacturer, or manufacturer's authorized installer.
     2. Limited Use Limited Application Elevator Model:

\*\* NOTE TO SPECIFIER \*\* Delete model option not required.

* + - 1. Model: Savaria Orion - Hydraulic.
         1. Hydraulic Roped Drive: 2:1.
         2. Normal Duty Cycle: 30 trips per day.
         3. Heavy Duty Cycle: 75 trips per day.
         4. Starts per Hour on Standard Installation: 15.
      2. Model: Savaria Orion; MRL.
         1. Counterweight Traction: 1:1, with direct drive gearbox and safety gear.
         2. Noise Minimization:

Uses a 6 pole, 3 phase motor which requires less RPMs.

Direct acting 1:1 ratio on the sheave to eliminate rope run noise.

Gearbox mounted on nitrile anti-vibration mounts.

Roller guides on the cab sling and guide shoes on the counterweights to further reduce noise.

* + - * 1. Duty Cycle: 200 trips per day.
        2. Starts per Hour: 45 max.
    1. Performance Requirements: ASME A17.1-B44 and ADA compliant including local codes and regulations except where specified otherwise.
    2. Characteristics:
       1. Rated Load: 1400 lbs (635 kg).
       2. Rated Speed; Nominal: 30 fpm (0.15 m per s).

\*\* NOTE TO SPECIFIER \*\* Delete travel option not required. Maximum travel is 25 feet (7.62 m).

* + - 1. Travel: \_\_\_\_ feet (\_\_\_\_ m).
      2. Travel: To be determined by the Architect or as stated on the Drawings

\*\* NOTE TO SPECIFIER \*\* Delete cab configuration options not required. Either of the first two options must be chosen for elevator cab design Model Orion17.

* + - 1. Cab Configuration: Enter and exit; same side.
      2. Cab Configuration: Enter and exit; front and rear.
      3. Cab Configuration: 90 degree exit.

\*\* NOTE TO SPECIFIER \*\* Delete car platform size options not required. The 51 x 51 inch (1295 x 1295 mm) cab platform size applies only to the 90 degree platform configuration. Orion17 cab design not available in 42 x 54 inch (1067 x 1371 mm) & 51 x 51 inch (1295 x 1295 mm) car platform sizes.

* + - 1. Car Platform Size (WxD): 42 x 54 inch (1067 x 1371 mm).
      2. Car Platform Size (WxD): 48 x 54 inch (1219 x 1371 mm).
      3. Car Platform Size (WxD): 42 x 60 inch (1067 x 1524 mm).
      4. Car Platform Size (WxD): 51 x 51 inch (1295 x 1295 mm).

\*\* NOTE TO SPECIFIER \*\* Insert levels serviced from 2 to 4.

* + - 1. Levels Serviced: \_\_\_\_\_\_\_\_.
      2. Car Operation: Automatic.

\*\* NOTE TO SPECIFIER \*\* Delete option for power supply not required.

* + - 1. Power Supply: 208 Volt, 3 Ph, 30 A plus 110 Volt, 15 A, 1 Ph 60 Hz.
      2. Power Supply: 240 Volt, 1 Ph, 40 A plus 110 Volt, 15 A, 1 Ph 60 Hz.
      3. Emergency Power: Battery operation in down direction.
      4. Controller: PLC.
      5. Manual Lowering: Outside hoistway in machine room or via access hatch for MRL.
    1. Elevator Cab Design:

\*\* NOTE TO SPECIFIER \*\* Delete car enclosure not required.

* + - 1. Car Enclosure: Model Orion 17. Steel cab. Standard PLAM overlays. Stainless steel dropped ceiling and trims.
         1. Cab Walls: Laminate Overlay with Stainless Steel Trim.

\*\* NOTE TO SPECIFIER \*\* Delete plastic laminate overlay options not required

* + - * 1. Plastic Laminate Overlay Finish: Reclaimed Wood.
        2. Plastic Laminate Overlay Finish: Gray.
        3. Plastic Laminate Overlay Finish: Walnut.
        4. Ceiling Finish: Stainless Steel Drop Down Ceiling with a combination of hidden panel lighting and LED pot lights.
        5. Car Doors and Frames: 1 1/2 hour ULC Fire rated and 2 speed horizontally sliding. Car Door Finish: Stainless steel brushed No 4.
        6. Handrail: A stainless steel single handrail, with 1-1/2 inch (38 mm) diameter rail shall be located on the control wall of the cab.

\*\* NOTE TO SPECIFIER \*\* Delete Orion car enclosure section if not required.

* + - 1. Car Enclosure: Orion STD. Car: Steel or stainless steel wall construction with optional raised PLAM panels.

\*\* NOTE TO SPECIFIER \*\* Delete cab wall options not required.

* + - * 1. Cab Walls: Steel. Architectural White; standard.
        2. Cab Walls: Steel. Black; standard.
        3. Cab Walls: Stainless Steel Brushed No. 4.

\*\* NOTE TO SPECIFIER \*\* Delete plastic laminate and melamine panel options not required. The steel cab option can only be used with an architectural white painted cab.

* + - * 1. No raised panels. Steel cab only; Architectural White.
        2. Raised Plastic Laminate Panels: Stone Grafix.
        3. Raised Plastic Laminate Panels: Fog.
        4. Raised Plastic Laminate Panels: Mahogany.
        5. Raised Plastic Laminate Panels: Natural Oak.
        6. Raised Melamine Panels: Cherry.
        7. Raised Melamine Panels: Candlelight.
        8. Raised Melamine Panels: Silken Maple.
        9. Raised Melamine Panels: Antique White.

\*\* NOTE TO SPECIFIER \*\* Delete ceiling finish option not required.

* + - * 1. Ceiling Finish: Steel. Architectural White with four recessed incandescent down lights.
        2. Ceiling Finish: Stainless Steel brushed No. 4.
        3. Car Doors and Frames: 1-1/2 hour ULC Fire rated, 2 speed horizontally sliding.

\*\* NOTE TO SPECIFIER \*\* Delete car door finish not required.

Door Finish: Powder coated white or black to match cab finish.

Door Finish: Stainless Steel brushed No. 4.

Single Handrail: Stainless steel. 1-1/2 inch (38 mm) diameter rail on control wall of cab.

\*\* NOTE TO SPECIFIER \*\* Delete Appendix E package if not required.

* + 1. Appendix E package: Includes directional arrow and voice annunciator.
    2. Automatic Landing Doors and Frames: 1-1/2 hour ULC Fire rated, 2 speed horizontally sliding with concealed mechanical interlock.

\*\* NOTE TO SPECIFIER \*\* Delete landing door finish not required.

* + - 1. Door Finish: Primed powder coated grey; standard.
      2. Door Finish: Powder coated Architectural white or black matching cab finish.
      3. Door Finish: Stainless Steel brushed No. 4.
    1. Car Operation:
       1. Operating Panel: Metal push bottoms with illuminated haloes, tactile identifications, emergency stop/alarm button, on/off key switch and emergency light mounted on removable stainless steel panel; type 304 No. 4 finish.
       2. Digital Floor Indicator and Directional Indicator: In cab and at each landing.
       3. Phone: ADA hands free within car operating panel.
       4. Emergency Operation: Battery operated light fixture, emergency battery lowering device and alarm in case of normal building supply failure.
          1. Battery: Rechargeable type with automatic recharging system.
       5. Manual Lowering Device: Located outside hoistway in the machine room.

\*\* NOTE TO SPECIFIER \*\* Delete fire-service options not required.

* + - 1. Fire Service: No fire-service required; standard.
      2. Fire Service: Phase 1 fire recall service only. Mandatory for 2010 A17.1 code.
      3. Fire Service: Phase 1 and Phase 2 fire recall service.
    1. Drive System:

\*\* NOTE TO SPECIFIER \*\* Delete drive system not applicable. Either select hydraulic 2:1 roped drive or 1:1 counterweight traction with direct drive.

* + - 1. Hydraulic 2:1 Roped Drive:
         1. Pumping Unit and Controller: Pre-wired. Tested prior to shipment. Locate in separate machine room.

Smooth stops at each landing.

Submersible pump and motor.

Adjustable pressure relief valve.

Manually operable down valve to lower lift in event of emergency. Valve to be activated from machine room.

Gate valve to isolate cylinder from pump unit.

Emergency lowering by battery power from the car control.

* + - * 1. Cylinder and Plunger:

Cylinder Construction: Steel pipe of sufficient thickness and suitable safety margin.

Cylinder Head: Internal guide ring and self-adjusting packing.

Plunger: Solid steel shaft of proper diameter machined true and smooth, with a stop electrically welded to bottom to prevent plunger from leaving cylinder.

Cable: Aircraft Cable 2 x 3/8 inch (10 mm) diameter.

Breaking Strength: 12,000 lb (5455 kg).

* + - * 1. Guide Yoke: 2:1 with one sheave, guide shoes, bearings, and guards.
        2. Guide Rails and Brackets: Steel 8 lb per ft (11.9 kg per m) guide rails and adjustable brackets used to guide platform and sling.

\*\* NOTE TO SPECIFIER \*\* Delete motor/Pump option not required.

* + - * 1. Motor/Pump: 240 V, 1 Ph or 208 V 3 Phase, 5 HP.
        2. Motor/Pump: 208 V, 3 Phase, 5 HP (3.73 kW).
      1. One-to-one counterweight traction with direct drive gearbox and safety gear.

\*\* NOTE TO SPECIFIER \*\* Delete controller location not required. Either controller will be remote in a machine room space or provided in cabinet accessed via landing and mounted next to one of the door entrances.

* + - * 1. Controller Location: TRUE MRL with controller in door buck

at landing level:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* + - * 1. Controller Location: In remote machine room.
        2. Drive System and Controller:

Motor: 6 pole 3 phase coupled to a 13:1 product specific gearbox to reduce noise level.

Smooth stops at each landing.

Emergency lowering by battery power.

* + - * 1. Guide Rail System:

Guide and Counterweight Rails: 8 lb per ft (11.9 kg per m).

Roller Guide: Used on cab sling.

Guide Shoes: On counterweight to further reduce noise.

Cable: Elevator traction cable 3 x 3/8 (10 mm) Diameter; 8 x 19 sealed with natural fiber core, regular lay.

Breaking Strength: 8,200 lb (3,727 kg) each.

* + 1. Leveling Device:
       1. Anti-creep maintaining carriage level within 1/2 inch (12 mm) of each landing.
       2. Limit and Leveling Switches: Inaccessible to unauthorized persons.
    2. Normal Terminal Stopping Devices: At top and bottom of runway to stop car positively and automatically.
    3. Wiring and Electrical Connections: Comply with applicable codes. Insulated, flame-retardant and moisture-proof outer covering. Run in conduit or electrical wire ways if outside unit enclosure. Use quick-disconnect harnesses when possible.
    4. Preparatory work to is part of the work of other sections:
       1. Permanent 240 VAC, 40 amp single phase or 208 VAC, 30 amp three phase power to operate lift provided from lockable fused/cartridge type disconnect switch with auxiliary contacts for battery operation. 110 VAC, 15 amp single phase power to operate lighting circuit. Refer to Drawings for power specifications and disconnect locations.
       2. Hoistway: Plumb and square with smooth interior surfaces, including fascias or furring of hoistway interior.
       3. Rough Openings: Per lift contractor's shop drawings.
       4. Pit Floor Slab: Level and as indicated on lift contractor's shop drawings.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until hoistway and machine room has been properly prepared.
      2. Site dimensions shall be taken to verify that tolerances and clearances have been maintained and meet local regulations.
      3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. ELEVATOR INSTALLATION
     1. Install in accordance with manufacturer's instructions.
     2. Install the components of the elevator system that are required and that are required by jurisdictional authorities to license the elevator.
     3. Trained employees of the elevator contractor shall perform installation work.
     4. Adjust elevator for proper operation and clean unit thoroughly.
     5. Instruct users in operating procedures and owner's maintenance person in trouble-shooting and maintenance procedures.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* 1. LIFT INSTALLATION
     1. Install all the components of the lift system that are specified in this section to be provided, and that are required by jurisdictional authorities to license the lift.
     2. Trained employees of the lift contractor shall perform all installation work of this section.
     3. Adjust lift for proper operation and clean unit thoroughly.
     4. Instruct users in operation procedures and Owner's maintenance person in trouble-shooting and maintenance procedures.
  2. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION