SECTION 07 72 33

ROOF AND FLOOR HATCHES

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\*\* NOTE TO SPECIFIER \*\* Surespan; access hatches, floor doors, smoke ventilators and ladders.  
This section is based on the products of Surespan, which is located at:1 International Plaza, Suite 550Philadelphia, PA 19113Tel: 717-305-4694Email: [request info (sales@surespancovers.com)](https://arcat.com/rfi?action=email&company=Surespan&message=RE%253A%2520Spec%2520Question%2520(07724ssl)%253A%2520&coid=53309&spec=07724ssl&rep=&fax=)  
Web: <https://surespancovers.us>   
 [ [Click Here](https://arcat.com/company/surespan-53309) ] for additional information.  
At Surespan we're unmatched in quality and design with a heavy focus on providing reliable, safe and convenient access to our customers.  
We pride ourselves on providing the ' complete access package' as we're able to offer roof access, glazed access, floor access, smoke ventilation and ladder products to our customers, all made to suit their project requirements.  
Surespan has been established since 1984 and have worked on a vast number of worldwide projects. You're able to discover some of our previous work by looking through our case studies.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Sliding roof access hatch. (SLHP) (SLHGE)
    2. Thermally broken roof access hatch.(SRHP/75)
    3. Thermally broken fire rated roof access hatch. (SRHTB/FR/240)
    4. Electrically operated glazed roof access hatch. (SRHGE)
    5. Floor access hatch. (HIAC) (SAC)
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 12 13 - Architecturally-Exposed Structural Steel Framing.
    2. Section 05 50 00 - Metal Fabrications.
    3. Section 06 10 00 - Rough Carpentry.
    4. Section 08 31 13 - Access Doors and Frames.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. European Standards (EN):
       1. EN 1363 - Fire Resistance Tests.
       2. EN 1634 - Fire Resistance and Smoke Control Tests for Door and Shutter Assemblies, Openable Windows and Elements of Building Hardware.
    2. International Electrotechnical Commission (IEC):
       1. IEC 60529 - Ingress Protection Testing. IP Code Testing.
    3. Underwriters Laboratories (UL):
       1. UL-EU Mark - UL Listed for Europe.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern and color.
    2. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

\*\* NOTE TO SPECIFIER \*\* The metric equivalents for access hatch sizes are not exact conversions from the empirical dimensions. They do represent the actual size of the hatch depending on whether you order the hatch in inches or metric.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Surespan, which is located at:1 International Plaza, Suite 550Philadelphia, PA 19113Tel: 717-305-4694Email: [request info (sales@surespancovers.com)](https://arcat.com/rfi?action=email&company=Surespan&message=RE%253A%2520Spec%2520Question%2520(07724ssl)%253A%2520&coid=53309&spec=07724ssl&rep=&fax=);Web: <https://surespancovers.us>

\*\* 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 not required.

* 1. SLIDING ROOF ACCESS HATCH
     1. Basis of Design:

\*\* NOTE TO SPECIFIER \*\* Delete product series and model options not required. Can be Custom Made to any size and specification to meet project requirements. Fixed external rails are required for opening spans of inches (1200 mm) or larger.

* + - 1. Product Series: SLHP. Sliding Roof Hatch as manufactured by Surespan Ltd. Thermally broken sliding access cover incorporates double seals.
         1. Model SLHP 60.60: 24 x 24 inches (600 x 600 mm).
         2. Model SLHP 75.75: 30 x 30 inches (750 x 750 mm).
         3. Model SLHP 90.75: 36 x 30 inches (900 x 750 mm).
         4. Model SLHP 90.90: 36 x 36 inches (900 x 900 mm).
         5. Model SLHP 100.100: c
         6. Model SLHP 150.75: 60 x 30 inches. Fixed external rails (1500 x 750 mm).
         7. Model SLHP 120.120: 48 x 48 inches. Fixed external rails (1200 x 1200 mm).
         8. Model SLHP Custom: \_\_\_ x \_\_\_ inches.
         9. Model SLHP: As determined by the Architect, or as detailed on the Drawings.
      2. Product Series: SLHG. Sliding Double Glazed Lid. Roof Hatch as manufactured by Surespan Ltd. Thermally broken sliding access cover incorporates double seals.

\*\* NOTE TO SPECIFIER \*\* Delete model options not required. Can be custom made to any size and specification to meet project requirements. Fixed external rails are required for opening spans of 47.25 inches (1200 mm) or larger. Change model to SLHG for double glazed lid.

* + - * 1. Model SLHG 60.60: 24 x 24 inches (600 x 600 mm).
        2. Model SLHG 75.75: 30 x 30 inches (750 x 750 mm).
        3. Model SLHG 90.75: 36 x 30 inches (900 x 750 mm).
        4. Model SLHG 90.90: 36 x 36 inches (900 c 900 mm).
        5. Model SLHG 100.100: 40 x 40 inches (1000 x 1000 mm).
        6. Model SLHG 150.75: 60 x 30 inches . Fixed external rails (1500 x 750 mm).
        7. Model SLHG 120.120: 48 x 48 inches . Fixed external rails (1200 x 1200 mm).
        8. Model SLHG Custom: \_\_\_ x \_\_\_ inches.
        9. Model SLHG: As determined by the Architect, or as detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete material, finish, and color options not required.

* + - 1. Material: Aluminum. Extrusion Grade: 6063-T6. Aluminum Sheet Grade: 1050.
         1. Finish: Mill finish.
         2. Finish: Powder coated, RAL colors.

Internal Color: \_\_\_\_\_\_\_\_.

Internal Color: As selected by Architect or as detailed on the Drawings.

External Color: \_\_\_\_\_\_\_\_.

External Color: As selected by Architect or as detailed on the Drawings.

* + - 1. Material: Stainless steel.
         1. Finish: Mill finish.
         2. Finish: Powder coated, RAL colors.

Internal Color: \_\_\_\_\_\_\_\_.

Internal Color: As selected by Architect or as detailed on the Drawings.

External Color: \_\_\_\_\_\_\_\_.

External Color: As selected by Architect or as detailed on the Drawings.

* + - 1. Sliding Access Covers: Corner welded and reinforced.
         1. Rails: Telescopic.
         2. Insulation: 2 inch (50 mm) thick.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.43 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - 1. Upstand: Thermally broken. 8.66 inches (220 mm) in height.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.43 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - * 1. Fixing Flange: 4.72 inches (120 mm).
        2. Integral weathering strip.
        3. External curb liner.
      1. Seals: Double unbroken bubble and blade seal to lid.

\*\* NOTE TO SPECIFIER \*\* Delete locking options not required. As standard, comes with a Deadlock with external key opening and internal thumb turn. External Push Handle. Electric is self-locking.

* + - 1. Locking: L02 Hasp and staple for padlock.
      2. Locking: L06 ABS European Deadlock. Internal: Thumb turn. External: Key locking; Standard.
      3. Locking: L07 European deadlock. Internal and External: Key locking.
      4. Locking: Electric Operation. Self-Locking. No locking options available).

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

* + - 1. Operation: Manual.
      2. Operation: Electric.

\*\* NOTE TO SPECIFIER \*\* The following items are optional. Delete options not required.

* + - 1. Ladder-up post.
      2. Handrail: SureGuard.
      3. Walk On Top: SureGrip non-slip.
      4. Fixed external handhold rails.
      5. Safety grid.
      6. Pitched roof installation.
      7. Extended cap and flashing.

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

* 1. THERMALLY BROKEN ROOF HATCH
     1. Basis of Design: Model SRHP/75 Series. Roof Hatch as manufactured by Surespan Ltd. Thermally broken access cover and upstand.
        1. Performance Requirements:
           1. Acoustic Rating: Up to 45 dB.
           2. Wind Load Resistance: Class A4.
           3. Weathertight: Class A7.
           4. Air Permeability: Class A4.
           5. Water Ingress Test: Water and Solid IPX6 (UKAS).
           6. Dust Ingress Test: IPX6 (UKAS).
           7. IP66: Ingress protection water and solid.

\*\* NOTE TO SPECIFIER \*\* Delete model options not required. Can be custom made to any size. For openings of 47.25 x 47.25 (1200 x 1200 mm) or larger, electric operation is required.

* + - 1. Model SRHP/75 60.60: 24 x 24 inches (600 x 600 mm).
      2. Model SRHP/75 75.75: 30 x 30 inches (750 x 7540 mm).
      3. Model SRHP/75 90.75: 36 x 30 inches (900 x 750 mm).
      4. Model SRHP/75 90.90: 36 x 36 inches (900 x 900 mm).
      5. Model SRHP/75 100.100: 40 x 40 inches(1000 x 1000 mm).
      6. Model SRHP/75 120.120: 48 x 48 inches (1200 x 1200 mm).
      7. Model SRHP/75 150.75: 60 x 30 inches (1500 x 750 mm).
      8. Model SRHP/75 Custom: \_\_\_ x \_\_\_ inches.
      9. Model SRHP/75: As determined by the Architect, or as detailed on the Drawings.
      10. Material: Aluminum. Extrusion Grade: 6063-T6. Aluminum Sheet Grade: 1050.

\*\* NOTE TO SPECIFIER \*\* Delete finish and color options not required.

* + - * 1. Finish: Mill finish.
        2. Finish: Powder coated, RAL colors.

Internal Color: \_\_\_\_\_\_\_\_.

Internal Color: As selected by the Architect or as detailed on the Drawings.

External Color: \_\_\_\_\_\_\_\_.

External Color: As selected by the Architect or as detailed on the Drawings.

* + - 1. Access Cover: Corner welded and reinforced.
         1. Opening Angle: Up to 85 degrees.
         2. Integral wrap-over edge.
         3. Insulation: 3 inches (75 mm) thick.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.26 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - * 1. Hinge: Continuous. Heavy duty.
        2. Pull down handle.
      1. Upstand: Steel. Thermally broken.
         1. Height: 11.81 inches (300 mm).
         2. Insulation: 3 inches (75 mm) thick.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.26 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - * 1. Fixing Flange: 4.72 inches (120 mm).
        2. Integral weathering strip.
        3. External curb liner.
        4. Base Flange: Predrilled holes.
      1. Seals: Double unbroken bubble and blade seal to cover.

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

* + - 1. Locking: L01 Cablock. Heavy duty grade 316 stainless steel Cablock and in the interest of safety, can only be opened from the inside unless otherwise specified.
      2. Locking: L02 Cablock. With hasp and staple.
      3. Locking: L04 Cablock. With external padlocking handle. Padlock by others.
      4. Locking: L06 ABS European Deadlock. Internal: Thumb turn. External: Key locking.
      5. Locking: L07 European deadlock. Internal and External: Key locking.
      6. Hold open safety stay.

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

* + - 1. Operation: Manual.
         1. Gas spring assisted. Access cover will have provision to lock in open position with a safety hold open stay to preventing accidental closure.
      2. Operation: Electric.
         1. Concealed actuator.

\*\* NOTE TO SPECIFIER \*\* The following items are optional. Delete options not required.

* + - 1. Ladder-up post.
      2. Handrail: SureGuard.
      3. Walk On Top: SureGrip non-slip.
      4. Fixed external handhold rails.
      5. Safety grid.
      6. Pitched roof installation.
      7. Extended cap and flashing.
      8. Wind restraint.

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

* 1. THERMALLY BROKEN FIRE RATED ROOF HATCH
     1. Basis of Design: ModelSRHTB/FR/240. Fire Rated Roof Hatch as manufactured by Surespan. Ltd. Thermally broken access cover and upstand.
        1. Standards Compliance:
           1. BS EN 1634-4
           2. UL-EU certified to 240 minutes.
        2. Acoustic Rating: Up to 45 dB.

\*\* NOTE TO SPECIFIER \*\* Delete model options not required. Can be Custom Made to any size. Openings 47.25 x 47.25 (1200 x 1200 mm) or larger, require electric operation.

* + - 1. Model SRHTB/FR 60.60: 24 x 24 inches (600 x 600 mm).
      2. Model SRHTB/FR 75.75: 30 x 30 inches (750 x 750 mm).
      3. Model SRHTB/FR 90.75: 36 x 30 inches (900 x 750 mm)..
      4. Model SRHTB/FR 90.90: 36 x 36 inches (900 x 900 mm).
      5. Model SRHTB/FR 100.100: 40 x 40 inches (1000 x 1000 mm).
      6. Model SRHTB/FR 120.120: 48 x 48 inches (1200 x 1200 mm).
      7. Model SRHTB/FR 150.75: 60 x 30 inches (1500 x 750 mm).
      8. Model SRHTB/FR Custom: \_\_\_ x \_\_\_ inches.
      9. Model SRHTB/FR: As determined by the Architect, or as detailed on the Drawings.
      10. Fire Rating:
          1. UL EU Certified: Fire rated up to 240minutes.
          2. EN 1634-4: Fire rated up to 240 minutes.50

\*\* NOTE TO SPECIFIER \*\* Delete fire rating options not required. Delete all if fire rating is not required.

* + - * 1. Fire Rating: 1 hour.
        2. Fire Rating: 2 hours.
        3. Fire Rating: 3 hours.
        4. Fire Rating: 4 hours.
      1. Material:
         1. Cover and Upstand: Aluminum. Steel cladding to underside of access cover.

\*\* NOTE TO SPECIFIER \*\* Delete finish and color options not required.

* + - * 1. Finish: Mill finish.
        2. Finish: Powder coated, RAL colors.

Internal Color: \_\_\_\_\_\_\_\_.

Internal Color: As selected by the Architect or as detailed on the Drawings.

External Color: \_\_\_\_\_\_\_\_.

External Color: As selected by the Architect or as detailed on the Drawings.

* + - 1. Access Cover: Single or double leaf supported by heavy duty hinges.
         1. Opening Angle: Up to 85 degrees.
         2. Integral wrap-over edge.
         3. Insulation: 2 inches (50 mm) thick.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.43 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - * 1. Hinge: Continuous. Heavy duty.
        2. Pull down handle.
        3. Wind restraint.
      1. Upstand: Steel. Thermally broken. Fireboard and smoke seals.
         1. Height: 11.81 inches (300 mm).
         2. Insulation: 2 inches (50 mm) thick.

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

Material: CFC and HCFC free polyisocyanurate achieving a U-value of 0.43 W per sq m K.

Material: Mineral wool achieving a U-value of 0.63 W per sq m K.

* + - * 1. Fixing Flange: 4.72 inches (120 mm).
        2. Integral weathering strip.
        3. External curb liner.
        4. Base Flange: Predrilled holes.
      1. Seals: Double unbroken bubble and blade seal to lid.

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

* + - 1. Locking: L01 Cablock. Heavy duty grade 316 stainless steel Cablock and in the interest of safety, can only be opened from the inside unless otherwise specified.
      2. Locking: L02 Cablock. With hasp and staple.
      3. Locking: L04 Cablock. With external padlocking handle. Padlock by others.
      4. Locking: L06 ABS European Deadlock. Internal: Thumb turn. External: Key locking.
      5. Locking: L07 European deadlock. Internal and External: Key locking.
      6. Hold open safety stay.

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

* + - 1. Operation: Manual.
         1. Gas spring assisted. Access cover will have provision to lock in open position with a safety hold open stay to preventing accidental closure.
      2. Operation: Electric.
         1. Concealed actuator.

\*\* NOTE TO SPECIFIER \*\* The following items are optional. Delete options not required.

* + - 1. Ladder-up post.
      2. Handrail: SureGuard.
      3. Walk On Top: SureGrip non-slip.
      4. Fixed external handhold rails.
      5. Safety grid.
      6. Pitched roof installation.
      7. Extended cap and flashing.
      8. Wind restraint.

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

* 1. ELECTRICALLY OPERATED GLAZED ROOF HATCH
     1. Basis of Design: Model SRHGE. Electrically Operated Glazed Roof Hatch as manufactured by Surespan Ltd. Thermally broken frameless construction. Glazed access cover and aluminum upstand. Install on a minimum 5 degree pitch to prevent water ponding.

\*\* NOTE TO SPECIFIER \*\* Delete model option not required. Can be Custom Made to any size.

* + - 1. Model SRHGE Custom: \_\_\_ x \_\_\_ inches.
      2. Model SRHGE: As determined by the Architect, or as detailed on the Drawings.
      3. Access Cover:
         1. Glazing: Sealed, double glazed, 1.32 inch (35.5mm) thick. Sealed glazed unit with vertical center pane.

Outer Pane: Pilkington 0.25 inch (6 mm) toughened K polished all round outer pane.

Spacer Bar: 0.787 inch (20 mm) Warm Edge silver.

Gas Fill Between Panes: Argon.

Inner Pane: Pilkington 0.375 inch (9.5 mm) toughened and laminated.

U-Value: 1.5 W per sq m K.

* + - 1. Upstand: Purpose made flashing to accept roof membrane, supplied by others and fitted under manufacturer's instructions, flush to exterior insulation.
         1. Insulation: 2 inch (50 mm) externally packed and subsequently weathered on site at time of installation by others.

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

* + - * 1. Height: 12.32 inches (313 mm).
        2. Height: \_\_\_ inches (\_\_\_ mm).
        3. Height: As detailed on the Drawings.
      1. Operation: Electric. Heavy-duty 24v DC Actuator.

\*\* NOTE TO SPECIFIER \*\* Solar power and battery are optional. Delete options not required.

* + - * 1. Solar power.
        2. Emergency battery backup.
      1. Finish: Mill finish.
      2. Finish: Powder coated, RAL colors.
         1. Internal Color: \_\_\_\_\_\_\_\_.
         2. Internal Color: As selected by the Architect or as detailed on the Drawings.
         3. External Color: \_\_\_\_\_\_\_\_.
         4. External Color: As selected by the Architect or as detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* The following items are optional. Delete options not required.

* + - * 1. Glazing Finish: Opaque/Frit Pattern.
        2. Concealed actuator.
        3. Glazing: Walk-on.
        4. Retractable hand hold.
        5. Rain and wind sensors.
        6. Emergency battery back up.
        7. Retractable safety grid.
        8. Handrail: Sureguard.
        9. Fixed external hand hold.

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

* 1. FLOOR HATCH
     1. Basis of Design: Model HIAC. Recessed Floor Hatch as manufactured by Surespan Ltd. A pan type recessed access cover. Not watertight but is self-draining. Water passing the double EPDM seals is dispersed via an integral drainage channel.
        1. Standards Compliance:
           1. BS EN 1634-1.
           2. BS EN 1363-1.
           3. UL-EU-01074-CPR.
        2. Acoustic Rating: Up to 45 dB.

\*\* NOTE TO SPECIFIER \*\* Delete model options not required. Can be Custom Made to any size.

* + - 1. Model HIAC 60.60: 24 x 24 inches (600 x 600 mm).
      2. Model HIAC 75.75: 30 x 30 inches (750 x 750 mm).
      3. Model HIAC 90.75: 36 x 30 inches (900 x 750 mm)..
      4. Model HIAC 90.90: 36 x 36 inches (900 x 900 mm)..
      5. Model HIAC 100.100: 40 x 40 inches (1000 x1000 mm).
      6. Model HIAC 120.120: 48 x 48 inches (1200 x1200 mm).
      7. Model HIAC 120.180: 48 x 72 inches (1200 x1800 mm).
      8. Model HIAC 150.150: 60 x 30 inches (1500 x1500 mm).
      9. Model HIAC Custom: \_\_\_ x \_\_\_ inches.

\*\* NOTE TO SPECIFIER \*\* FACTA Classification Ratings: Listed below.

* + - 1. FACTA A: Pedestrian use and up to 0.56 tonf (5 kN) wheel loads.
      2. FACTA AA: Small vehicles up to 1.69 tonf (15 kN) wheel loads.
      3. FACTA AAA: Cars up to 2.81 tonf (25 kN) wheel loads.
      4. FACTA B: Cars and vans up to 5.62 tonf (50 kN) wheel loads.
      5. FACTA C: Trucks up to 7.31 tonf (65 kN) wheel loads.
      6. FACTA D: Articulated lorries up to 12.14 tonf (108 kN) wheel loads.
      7. FACTA E: Heavy, moving plant up to 17.76 tonf (158 kN) wheel loads.
      8. Hatches can also be manufactured as per H-20 and HS-20 Loadings
      9. FACTA Classification Rating: \_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete loading classification options not required.

* + - 1. Loading: W1 Pedestrian light loading (2.5 KN/sqm).
      2. Loading: W2 Pedestrian medium loading (5 KN/sqm).
      3. Loading: W2 Pedestrian heavy loading (10 KN/sqm).
      4. Loading: W3 Car light loading (15 KN wheel load).
      5. Loading: W4 Car medium loading (25 KN wheel load).
      6. Loading: W5 Car heavy loading (50 KN wheel load).
      7. Loading: W6 Van heavy loading (65 KN wheel load).
      8. Loading: W7 HGV heavy loading (108 KN wheel load).
      9. Loading: W8 Docklands heavy loading (158 KN wheel load).

\*\* NOTE TO SPECIFIER \*\* Delete fire rating options not required. Delete all if fire rating is not required.

* + - 1. Fire Rating: 1 hour.
      2. Fire Rating: 2 hours.
      3. Fire Rating: 3 hours.
      4. Fire Rating: 4 hours.
      5. Non Fire Rated
      6. Access Cover:

\*\* NOTE TO SPECIFIER \*\* Delete access cover options not required. Door Recess Range: 1/8 to 4 inches (3 to 100 mm).

* + - * 1. Recess: \_\_\_ inches.
        2. Recess: To be determined by the Architect or as detailed on the Drawings.
        3. Leaf: Single. Maximum Opening: 85 degrees.
        4. Leaf: Double. Maximum Opening: 88 degrees, each leaf.

\*\* NOTE TO SPECIFIER \*\* As part of the initial inquiry the weight of the infill must be advised to enable us to determine the method of operation.

* + - 1. Infill Material: \_\_\_\_\_\_\_\_. Infill Weight: \_\_\_ lbs (\_\_\_ kg).

\*\* NOTE TO SPECIFIER \*\* Delete material options not required. Trim for exposed edges is optional. Delete if not required.

* + - 1. Material, Access Cover, and Frame: Aluminum.
         1. Trim for Exposed Edges: Polished stainless steel.
      2. Material, Access, Cover and Frame: Galvanized mild steel.
         1. Trim for Exposed Edges: Polished stainless steel.
      3. Material, Access, Cover and Frame: 304 Stainless steel.
      4. Material, Access, Cover and Frame: 316 Stainless steel.
      5. Hinge: Hidden. Stainless steel. Incorporates an unbroken seal to help prevent ingress of dirt and moisture.
      6. Seal: Double EPDM seal to access cover.

\*\* NOTE TO SPECIFIER \*\* Delete operation options not required. Electric and hydraulic are used for larger hatches depending on loading infill and size.

* + - 1. Operation: Manual.
         1. Gas Springs: Grade 316 stainless steel.
         2. Hold open safety stay. ' T' Operated from above.
         3. Can be operated from both sides.
         4. Heavy duty stainless steel slam latch.
      2. Operation: Electric.
         1. Actuators: 24 VDC. Actuators lock in position with battery back up control panel in case of emergency.
         2. Control panel with 72 hour battery back up.
         3. Removable Actuators.
         4. Controls:

Control panel.

Internal and external key switch.

Internal and external push button.

Bespoke switches can be accommodated including Key pads, remote control and more.

* + - 1. Operation: Hydraulic.
         1. Hydraulic actuators.

\*\* NOTE TO SPECIFIER \*\* Bespoke options can be accommodated including alarms, klaxon, contact sensors and more.

* + - * 1. Controls:

Manual hand pump and control panel.

Control panel housing.

Switches for electric.

* + - 1. Features:

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

* + - * 1. Retractable safety grid.
        2. Retractable hand hold.
        3. Retractable single pole.
        4. Drainage Connection.

Flexible Hose Adapter: Internal 3/4 inch. Connection to drain by others.

Flexible Hose Adapter: External 3/4 inch. Connection to drain by others.

* + - * 1. Powder coated, RAL Colors:

Color: As selected by the the Architect or as detailed on the Drawings.

* + - * 1. SureGrip: Non slip coating.
        2. Viewing window.
        3. Internal pull handle.
        4. SureGuard handrail.

\*\* NOTE TO SPECIFIER \*\* Lock L03 is standard. Delete locking options not required. Electric and Hydraulic are self-locking and the Locking options below do not apply.

* + - 1. Locking: L01. Heavy duty stainless steel slam latch.
      2. Locking: L03. Tee lock method of opening lid from above. Stainless steel plug protects internal cab lock keyway.
      3. Locking: LB. Locking padlock box Integral locking box for additional security.
      4. Locking: EIM. Electrical Interlock (Micro switch) When remote alarm indication or automatic light switching is required.
      5. Locking: SB. Shoot bolt lock internal only.
      6. Locking: CAML. Cam lock Additional locking device to ensure positive sealing.
      7. Locking: ELB. Electrical locking box for additional security when linked to a BMS system.
      8. Locking: L07C. Concealed dead lock Key or thumb turn opening with cover plate.
      9. Locking: PRH - Emergency panic release handle.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing 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.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
   4. FIELD QUALITY CONTROL
      1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturers recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION