

CFQR DOT 1800000071
SINGLE SPAN ARCH FABRIC STEEL FRAMED
ROOF SYSTEMS

MARCH 13, 2018

COVER-ALL BUILDINGS OF WV, INC.

P.O. BOX 727

BRIDGEPORT, WV 26330

(800) 246-7589

NATE ROHRIG

03/13/18 10:08:28
WV Purchasing Division

COVER-ALL BUILDINGS OF WV, INC.
P.O. BOX 727
BRIDGEPORT, WV 26330
PHONE (304) 623-4827 FAX (304) 622-5546

MARCH 13, 2018

STATE OF WEST VIRGINIA
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON STREET EAST
CHARLESTON, WV 25305-0130

CRFQ 0803 DOT1800000071 BUILDING ROOF SYSTEMS

WE ARE PLEASED TO PROVIDE THE FOLLOWING QUOTATION:

BRITESPAN BUILDING SYSTEMS:

TO INCLUDE:

1. BID DOCUMENTS
2. WARRANTY DOCUMENTATION
3. A660 CERTIFICATE OF REGISTRATION
4. 40' X 70' W/ ONE 18' X 18' CUSTOM FABRIC SLIDING DOOR (STAMPED SHOP DRAWINGS).
5. 50' X 100' W/ ONE 18' X 18' CUSTOM FABRIC SLIDING DOOR (STAMPED SHOP DRAWINGS).
6. 72' X 100' W/ ONE 18' X 18' CUSTOM FABRIC SLIDING DOOR (STAMPED SHOP DRAWINGS).
7. 72' X 140' W/ ONE 18' X 18' CUSTOM FABRIC SLIDING DOOR (STAMPED SHOP DRAWINGS).
8. 72' X 140' W/ TWO 18' X 18' CUSTOM FABRIC SLIDING DOOR (STAMPED SHOP DRAWINGS).
9. GREEN AND TAN FABRIC SAMPLES
10. FABRIC BUILDING BUYERS GUIDE
11. SUPERVISOR RESUME
12. FABRIC SPEC SHEET
13. 40' OWNERS MANUAL
14. 55' OWNERS MANUAL
15. 72' OWNERS MANUAL
16. END OWNER MANUAL
17. SLIDING DOOR DETAIL SHEET

BUILDING REFERENCES:

- | | |
|--------------------------|----------------------------------|
| 1. WVDOH PINEVILLE, WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 2. WVDOH CALHOUN CO., WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 3. WVDOH GORE, WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 4. WVDOH BRUCETON, WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 5. WVDOH GRAFTON RD., WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 6. WVDOH PARKERSBURG, WV | 72' X 140' (DEALER INSTALL) |

COVER-ALL BUILDINGS OF WV, INC.

P.O. BOX 727

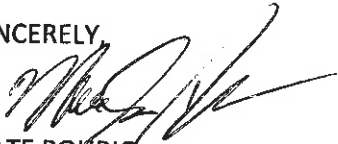
BRIDGEPORT, WV 26330

PHONE (304) 623-4827 FAX (304) 622-5546

- | | |
|-----------------------------|----------------------------------|
| 7. WVDOH BRAGG, WV | 72' X 140' (DEALER INSTALL) |
| 8. WVDOH WOOD COUNTY, WV | 72' X 140' (SUPPLIED SUPERVISOR) |
| 9. WVDOH RELEIGH COUNTY, WV | 72' X 140' (DEALER INSTALL) |

THANK YOU FOR YOUR INTEREST IN BRITESPAN BUILDINGS.

SINCERELY,



NATE ROHRIG

(800) 246-7589 OFFICE

(304) 641-6450 CELL

(304) 622-5546 FAX

NROHRIG@AOL.COM

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is an individual resident vendor and has resided continuously in West Virginia, or bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia, for four (4) years immediately preceding the date of this certification; or,
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; or,
4. **Application is made for 5% vendor preference for the reason checked:**
Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7. **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.**
Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Cover - All Bidders of WV Inc Signed: [Signature]
Date: 3-12-18 Title: President

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

Information Attachment Form

Building Roof Systems Qualifications

This form should be completed and should be submitted with bid documents.

If the Vendor does not provide a completed Information Attachment Form with their bid, the Vendor shall provide a completed Information Attachment Form within five calendar days after request by the Purchasing Division.

| |
|--|
| Vendor should provide the current ISO 9001:2008, equivalent or substitute certification information requested from Section 3.1.5.1 of the Contract specifications in the space below. Whether ISO 9001:2008 or an equivalent or substitute certification, the bidder should provide the name of that certification below. NOTE: A copy of the certification should be submitted with bid submission. |
| CERTIFICATION: Attached A660 Certificate |
| Vendor should provide the information requested in Section 3.1.5.2, listing three structure references in use for at least five years: |
| 1 Refer to Cover-letter |
| 2 |
| 3 |
| Vendor should provide the name of the Technical Expert and list their experience on at least five jobs or similar type jobs per Section 3.1.5.3 of the Contract specifications. This is for informational purposes and does not dictate the technical expert for any project. NOTE: A detailed resume of the technical expert should be submitted with bid submission. |
| Name of Technical Expert: Nathaniel Rohrig |
| Five jobs or similar type jobs: |
| 1 Refer to Cover-Letter |
| 2 |
| 3 |
| 4 |
| 5 |



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 06 - Building Supply

Proc Folder: 415409

Doc Description: BUILDING ROOF SYSTEMS

Proc Type: Central Master Agreement

| Date Issued | Solicitation Closes | Solicitation No | Version |
|-------------|------------------------|-------------------------|---------|
| 2018-02-21 | 2018-03-13 13:30:00 | CRFQ 0803 DOT1800000071 | 1 |

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Name, Address and Telephone Number:

Cover-All Buildings of WV, Inc.

P.O. Box 727

Bridgport, WV 26330

(304) 623-4827

FOR INFORMATION CONTACT THE BUYER

Mark A Atkins

(304) 558-2307

mark.a.atkins@wv.gov

Signature X

FEIN #

55-076 5921

DATE

3-12-18

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH), to establish an open-end contract to supply all materials for various sizes of single span truss arch fabric covered steel framed building roof systems for various West Virginia Division of Highways salt shed building site locations throughout the state of West Virginia per attached documents.

| INVOICE TO | | SHIP TO | |
|---|---------|---|----------|
| VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER | | STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER | |
| No City | WV99999 | No City | WV 99999 |
| US | | US | |

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Total Price |
|------|-----------------------|---------|------------|-------------------------|--------------------------|
| 1 | BUILDING ROOF SYSTEMS | 3.00000 | EA | * 33,094. ²⁵ | \$ 99,282. ⁷⁵ |

| Comm Code | Manufacturer | Specification | Model # |
|-----------|-------------------|---------------|-----------------|
| 25174100 | <i>Brite-span</i> | | <i>Atlas 40</i> |

Extended Description :

SINGLE SPAN TRUSS ARCH FABRIC COVERED STEEL FRAMED BUILDING ROOF SYSTEM INCLUDING ALL COMPONENTS TO COVER A 40' X 70' SALT SHED BUILDING INCLUDING ONE DOOR ON THE FRONT SIDE.

| INVOICE TO | | SHIP TO | |
|---|---------|---|----------|
| VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER | | STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER | |
| No City | WV99999 | No City | WV 99999 |
| US | | US | |

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Total Price |
|------|-----------------------|---------|------------|-------------------------|---------------------------|
| 2 | BUILDING ROOF SYSTEMS | 2.00000 | EA | * 67,209. ²⁴ | \$ 134,419. ⁸⁰ |

| Comm Code | Manufacturer | Specification | Model # |
|-----------|-------------------|---------------|-----------------|
| 25174100 | <i>Brite-span</i> | | <i>Atlas 55</i> |

Extended Description :

SINGLE SPAN TRUSS ARCH FABRIC COVERED STEEL FRAMED BUILDING ROOF SYSTEM INCLUDING ALL COMPONENTS TO COVER A 55' X 100' SALT SHED BUILDING INCLUDING ONE DOOR ON THE FRONT SIDE.

| INVOICE TO | | SHIP TO | |
|---|---------|---|----------|
| VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER | | STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER | |
| No City | WW99999 | No City | WW 99999 |
| US | | US | |

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Total Price |
|------|-----------------------|---------|------------|--------------------------|---------------------------|
| 3 | BUILDING ROOF SYSTEMS | 3.00000 | EA | \$ 89,027. ⁹⁷ | \$ 267,083. ⁹¹ |

| Comm Code | Manufacturer | Specification | Model # |
|-----------|------------------|---------------|-----------------|
| 25174100 | <i>Britespan</i> | | <i>Atlas 72</i> |

Extended Description :

SINGLE SPAN TRUSS ARCH FABRIC COVERED STEEL FRAMED BUILDING ROOF SYSTEM INCLUDING ALL COMPONENTS TO COVER A 72' X 100' SALT SHED BUILDING INCLUDING ONE DOOR ON THE FRONT SIDE.

| INVOICE TO | | SHIP TO | |
|---|---------|---|----------|
| VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER | | STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER | |
| No City | WW99999 | No City | WW 99999 |
| US | | US | |

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Total Price |
|------|-----------------------|---------|------------|---------------------------|---------------------------|
| 4 | BUILDING ROOF SYSTEMS | 2.00000 | EA | \$ 111,342. ⁵⁵ | \$ 222,685. ¹⁰ |

| Comm Code | Manufacturer | Specification | Model # |
|-----------|------------------|---------------|-----------------|
| 25174100 | <i>Britespan</i> | | <i>Atlas 72</i> |

Extended Description :

SINGLE SPAN TRUSS ARCH FABRIC COVERED STEEL FRAMED BUILDING ROOF SYSTEM INCLUDING ALL COMPONENTS TO COVER A 72' X 140' SALT SHED BUILDING INCLUDING ONE DOOR ON THE FRONT SIDE.

| INVOICE TO | | SHIP TO | |
|---|---------|---|----------|
| VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER | | STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER | |
| No City | WW99999 | No City | WW 99999 |
| US | | US | |

| Line | Comm Ln Desc | Qty | Unit Issue | Unit Price | Total Price |
|------|-----------------------|---------|------------|---------------------------|---------------------------|
| 5 | BUILDING ROOF SYSTEMS | 2.00000 | EA | \$ 117,137. ⁷² | \$ 234,275. ⁴⁴ |

| Comm Code | Manufacturer | Specification | Model # |
|-----------|--------------|---------------|----------|
| 25174100 | Britespan | | Atlas 72 |

Extended Description :

5. 1. E SPAN TRUSS ARCH FABRIC COVERED STEEL FRAMED BUILDING ROOF SYSTEM INCLUDING ALL COMPONENTS TO COVER A
7. 140' SALT SHED BUILDING INCLUDING TWO DOORS, ONE ON THE FRONT SIDE AND ONE ON THE BACK SIDE.

SCHEDULE OF EVENTS

| Line | Event | Event Date |
|------|---------------------------------------|------------|
| 1 | Technical Questions due by 2:00pm EST | 2018-02-27 |

| | | | |
|---------------|--------------------------------|--|------------------------------|
| DOT1800000071 | Document Phase Final | Document Description BUILDING ROOF SYSTEMS | Page 5 of 5 |
|---------------|--------------------------------|--|------------------------------|

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

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Building Roof Systems

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways (WVDOH), to establish an open-end contract to supply all materials for various sizes of single span truss arch fabric covered steel framed building roof systems for various West Virginia Division of Highways salt shed building site locations throughout the state of West Virginia.

The Vendor shall insure that all materials for a roof system is delivered to the salt shed building site provided on a Delivery Order. The West Virginia Division of Highways will perform or contract for the salt shed building the following: all site preparation, construction of the reinforced concrete walls and roof system installation. The successful bidder must provide a qualified technical expert during the installation of the roof system.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
- 2.1 **“Contract Item” or “Contract Items”** means the list of items identified in Section 3.2 below and on the Pricing Pages.
- 2.2 **“Pricing Pages”** means the schedule of prices, estimated order quantity, totals contained in wvOASIS or attached hereto as Exhibit A and used to evaluate the Solicitation responses.
- 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- 2.4 **“WVDOH”** used throughout this Solicitation means the West Virginia Division of Highways.
- 2.5 **“Roof System(s)”** used throughout this Solicitation means all components comprised in a single span truss arch fabric covered steel framed building roof system which will be used to cover WVDOH salt sheds.
- 2.6 **“ASCE”** used throughout this Solicitation means the American Society of Civil Engineers. Reference: www.asce.org.
- 2.7 **“ANSI”** used throughout this Solicitation means the American National Standards Institute. Reference: www.ansi.org.

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- 2.8 “AISC” used through this Solicitation mean the American Institute of Steel Construction. Reference: www.aisc.org.
- 2.9 “AASHTO” used throughout this Solicitation means American Association of State Highway and Transportation Officials. Reference: www.transportation.org.
- 2.10 “ASTM” used throughout this Solicitation means the American Society for Testing and Materials. Reference: www.astm.org.
- 2.11 “HSS” used throughout this Solicitation means Hollow Structural Steel.
- 2.12 “PSI” used throughout this Solicitation means Pounds per Square Inch.
- 2.13 “PSF” used throughout this Solicitation mean Pounds per Square Foot.
- 2.14 “Contractor” or “Vendor” or “Bidder” used throughout this Solicitation and in any cited sections of the West Virginia Department of Transportation, Division of Highways Standard Specifications, Roads and Bridges, most recent edition, as modified by all subsequent annual Supplemental Specifications, are interchangeable.

3. GENERAL REQUIREMENTS:

- 3.1 **Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

3.1.1 General Information and Requirements

3.1.1.1 WVDOH constructs salt shed buildings per the following dimensions and Roof Systems shall be ordered accordingly:

40' x 70' with one door on one end

55' x 100' with one door on one end

72' x 100' with one door on one end

72' x 140' with one door on one end

72' x 140' with two doors, one centered on each end

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3.1.1.2 The design shall comply with the ASCE 7 manual on “Minimum Design Loads for Buildings and Other Structures”.

3.1.1.2.1 The minimum interior wall height clearance is 12 feet above the finished floor slab. There are no exceptions for less than 12 feet due to shed loading clearance.

3.1.1.2.2 The minimum wall thickness is 12 inches.

3.1.1.2.3 The minimum interior clearance required at the apex of the arch shall be as follows:

$$40' \times 70' = 26'$$

$$55' \times 100' = 37'$$

$$72' \times 100' = 39'$$

$$72' \times 140' = 39'$$

3.1.1.2.4 In addition to the design loads required by the building code, a ground snow load of 35 PSF shall be utilized for all locations unless otherwise required by state or local code. The load combinations shall be as specified in the applicable building code(s). See WV Code §29-3-5b¹ and the WV State Fire Commission State Building Code². These websites are referenced at the end of this document.

3.1.2 Steel Frame Requirements

3.1.2.1 Each member must be designed to withstand stresses resulting from combinations of loads that produce maximum allowable stresses in that member.

3.1.2.2 Each assembly shall be properly piece-marked to assist with the identification and erection of the roof system. Piece-marks by secured tagging or welding practices (prior to final coating of assembly) shall be labeled in clear, easily identifiable locations.

3.1.2.3 Structural steel must comply with ANSI/AISC 360, Specification for Structural Steel Buildings, most recent edition for design requirements and allowable stresses.

3.1.2.4 Welded connections must comply with the most recent edition of the provisions of ANSI/AISC 360, Specification of Structural Steel Buildings.

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3.1.2.5 The entire system shall be galvanized to resist corrosion from road salt stored within the structure in accordance with ASTM A123, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products. All fasteners shall be galvanized in accordance with ASTM A153, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Hardware.

3.1.2.6 Steel tubing cross members and back wall framing members shall comply with ASTM 500, Grade B, ASTM A501 or ASTM A53.

3.1.2.7 Steel connection members shall be fabricated from plate or bar stock and provide 42,000 PSI minimum yield strength and comply with ASTM A529, ASTM A570 or ASTM A572.

3.1.2.8 Bolts for structural framing shall comply with ASTM A307 or ASTM A325 specifications as necessary for design loads and connection details, including bolts for use in corrosive environments.

3.1.2.9 The system is to include HSS end wall steel and fabric on both ends. The back wall shall be totally enclosed except when the 72' x 140' requires a front and a back door.

3.1.2.10 The front wall shall include a double-slide or double-swing door, centered along the front wall, for all sizes at no less than 18' x 18' opening. Should double-slide doors be proposed, door system shall include an upper shield or shed-style canopy to protect the door rolling mechanisms from outdoor weather elements. The door proposed **must** accommodate manual operation without assistance from powered operators or winch systems.

3.1.2.11 When the 72' x 140' including a front and back door is requested, an upper shield or shed-style canopy is required to protect the door rolling mechanisms for double-slide doors, if proposed.

3.1.3 Industrial Fabric Cover Requirements

3.1.3.1 The industrial fabric cover shall be woven high density polyethylene tape with double stack weave – finish coated sides, meeting or exceeding the specs listed below:

| | |
|-------------------|--|
| Weave | 16 x 16 psi woven clear HDPE scrim |
| Coating Thickness | 4.0 mil average each side (94 g/m ²) |

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| | | |
|------------------------|--|------------|
| Coating Composition | Modified LDPE coating with UV protection | |
| Weight | 12.5 oz/yd ² (373 g/m ²)+/-5% | |
| Thickness | 23 mils (0.635mm) | ASTM D5199 |
| Hydrostatic Resistance | | |
| Method | 171 psi (1180 kPa) | ASTM D751A |
| Grab Tensile | Warp: 340 lbs. (1511 N) | ASTM D5034 |
| | Weft: 340 lbs. (1511 N) | ASTM D5034 |
| Strip Tensile | Warp: 250 lbs. (1112 N) | ASTM D5035 |
| | Weft: 250 lbs. (1112 N) | ASTM D5035 |
| Tongue Tear | Warp: 115 lbs. (511 N) | ASTM D2261 |
| | Weft: 115 lbs. (511 N) | ASTM D2261 |
| Mullen Burst | 675 psi (4658 kPa) | ASTM D3786 |
| Cold Crack | Minus 60° C | ASTM D2136 |

Fire Ratings:

| <u>Test/Standard</u> | <u>Flame Spread</u> | <u>Smoke Developed</u> | <u>Char Length</u> |
|----------------------|---------------------|------------------------|--------------------|
| ASTM E84 | FS10 | SD 58 | 6.5 |
| Can/ULC 5102.2-M88 | FS15 | SD 125 | 6.5 |

3.1.3.2 The cover fastening system shall be compatible with the specifications above including zero-stretch belting, welded fabric pockets and 10,000-pound capacity lashing winches coated to prevent corrosion.

3.1.3.3 The system shall include aluminum flat bar for fabric termination around entire building.

3.1.3.4 The color of the fabric cover shall be tan with green trim. Prior to contract award, color samples may be requested by the WVDOH for review and approval by the WVDOH.

3.1.3.5 The warranty period for the industrial cover shall be fifteen (15) years. The awarded vendor shall provide a copy of this warranty.

3.1.3.6 The awarded vendor is responsible for all repairs at no additional cost to the WVDOH.

3.1.3.6.1 Permanent fabric repair service shall be handled by the Vendor within five (5) working days after the Vendor is contacted by the WVDOH. Temporary patching* shall only be used when conditions do not permit permanent repair (such as temperatures). Permanent repair shall be made as soon as conditions are appropriate for successful repair. Alternative temporary repair

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dates and permanent repair dates may be agreed upon by the WVDOH and the Vendor.

*NOTE: Temporary patching such as the use of Duct Tape is not acceptable.

3.1.3.6.2 Servicing or repair to the double-slide or double-swing front and/or back door(s) shall be handled by the Vendor within five (5) working days after the Vendor is contacted by the WVDOH. The completed service or repair shall be in an acceptable state by the WVDOH. At no time shall the WVDOH be expected to repair the door. Alternative service/repair dates may be agreed upon by the WVDOH and the Vendor.

3.1.4 Shop Drawings

3.1.4.1 Sample Shop Drawings. Vendor sample shop drawings with complete information on the five requested systems should be submitted with the Vendor's bid. If sample shop drawings are not submitted with the Vendor's bid, the Vendor shall provide the samples within five calendar days after request by the Purchasing Division. Vendor sample shop drawings shall indicate pertinent criteria, reaction and other information required for fabrication installation and as required by codes. The sample shop drawings shall identify the construction and in-place loads for consideration with the salt shed building design. The sample shop drawings shall identify the specific slide and/or swing type function for the front and/or back door(s). The door proposed **must** accommodate manual operation without assistance from powered operators or winch systems.

3.1.4.2 Project Specific Shop Drawings. Once a project has been established, all project specific shop drawings, from the awarded vendor, **must be signed and sealed** by a Professional Engineer registered in the State of West Virginia. Review and approval of project specific shop drawings will be conducted by the WVDOH.

3.1.5 Qualifications

3.1.5.1 Certification. At the time of bid, the bidder must be currently certified, at a minimum to ISO 9001:2008 Quality Management Systems Standards and should provide a copy of that certification with their bid. The Vendor shall have direct experience in the design, manufacture and installation of structures of the type specified herein; shall operate according to a comprehensive quality system. If a copy of the Vendor's

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certification is not submitted with the Vendor's bid, the Vendor shall provide the certification copy within five calendar days after request by the Purchasing Division.

A current equivalent or current substitute certification of similar Standards shall be considered for approval by the WVDOH. Documentation of the certification, along with a copy of the bidder's current certification should be submitted with the bid. If a copy of the Vendor's equivalent or substitute certification is not submitted with the Vendor's bid, the Vendor shall provide the certification copy within five calendar days after request by the Purchasing Division. The WVDOH will review the equivalent or substitute certification prior to contract award.

Whether ISO 9001:2008 Quality Management Systems Standards certification or an equivalent or substitute certification, the bidder should provide the name of this certification on the Exhibit_B Information Attachment Form. If the Vendor does not provide the name of the certification on the Information Attachment Form submitted with their bid, the Vendor shall provide the name of the certification within five calendar days after request by the Purchasing Division.

Whether ISO 9001:2008 certified, equivalent or substitute, the certification must continue throughout the term of this contract. Upon any renewal of certification, a copy of the certification must be sent the WVDOH.

3.1.5.2 Structure References. The bidder should provide three references with structures in use for at least five (5) years which are clear span and enclose an area equal to or greater than a 72' x 140' concrete structure on the Exhibit_B Information Attachment Form. If the Vendor does not provide three references on the Information Attachment Form submitted with their bid, the Vendor shall provide three references within five calendar days after request by the Purchasing Division.

3.1.5.3 Vendor Personnel Requirements. The bidder should submit the name of at least one technical expert listing their experience on at least five jobs or similar type jobs on the Exhibit_B Information Attachment Form. If the Vendor does not provide the name of one technical expert on the Information Attachment Form submitted with their bid, the Vendor shall provide the name of one technical expert within five calendar days after request by the Purchasing Division. Additionally, a detailed resume of this technical expert should also be included with the bidder's response. This resume should be in detail as if submitting a job application. If the

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Vendor does not provide the technical expert's resume with their bid, the Vendor shall provide the technical expert's resume within five calendar days after request by the Purchasing Division. This will be for informational purposes and does not dictate the technical expert for any project.

The awarded vendor **shall provide** representation at the pre- and post-construction meetings for salt shed projects being constructed. The representation shall be to establish coordination, discussion of installation information and any clarification required between the salt shed construction project and the awarded contractor or WVDOH personnel performing the installation of the salt shed building.

4. CONTRACT AWARD:

- 4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for Contract Items for all WVDOH locations. A contract will be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Exhibit_B Information Attachment Form:** The Exhibit_B Information Attachment Form requests valuable information for the evaluation of the Vendor's submitted bid. The Vendor should submit the completed Information Attachment Form with their bid. If the Vendor does not provide a completed Information Attachment Form with their bid, the Vendor shall provide a completed Information Attachment Form within five calendar days after request by the Purchasing Division.
- 4.3 Pricing Pages:** Vendor shall submit a price by providing unit prices for each Contract Item. Pricing shall be considered statewide, including delivery to the any WVDOH site within the state of West Virginia. Vendors must submit a price for all Contract Items to be evaluated for award. Failure to submit a price for all Contract Items may result in Vendor's bid being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item is for evaluation purposes only and does not represent the approximate volume of anticipated purchases. No future use of the Contract or any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document

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5. ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. The State of West Virginia currently utilizes a VISA Purchasing Card Program which is issued through a bank. The successful Vendors must accept the State of West Virginia VISA Purchasing Card for payment of orders placed by any State agency as a condition of award.

6. DELIVERY AND RETURN:

- 6.1 Delivery Time:** Vendor shall deliver standard orders within thirty (30) working days after orders are received. Vendor shall deliver emergency orders within an agreed upon alternative time frame by the WVDOH and the Vendor after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

Deliveries shall be made to the designated site during normal project working hours. This information will be provided to the vendor on the Delivery Order. The awarded vendor shall provide representation to inspect and accept the material on behalf of the WVDOH. Unloading of the material shall be performed by the WVDOH or the contractor constructing the salt shed building.

- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.5 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the

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Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

- 6.5 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.6 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7. VENDOR DEFAULT:

- 7.1** The following shall be considered a Vendor default under this Contract.
- 7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
 - 7.1.2** Failure to comply with other specifications and requirements contained herein.
 - 7.1.3** Failure to comply with any laws, rules and ordinances applicable to the Contract Services provided under this Contract.
 - 7.1.4** Failure to remedy deficient performance upon request.
- 7.2** The following remedies shall be available to Agency upon default.
- 7.2.1** Immediate cancellation of the Contract.

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7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

8.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.

8.2 Vendor Supply: Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.

8.3 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

8.4 Contract Manager: During its performance of the Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract Manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract Manager and his or her contact information below.

Contract Manager: Nate Rohrig
Telephone Number: (304) 641-26450
Fax Number: (304) 622-5546
Email Address: nrohrig@aol.com

Reference:

¹www.legis.state.wv.us/WVCODE/ChapterEntire.cfm?chap=29&art=3§ion=5B#03

²www.firemarshal.wv.gov/Documents/87-04%20State%20Building%20Code.pdf

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **NON-MANDATORY PRE-BID** meeting will be held at the following place and time:

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: February 27, 2018 due by 2:00pm EST

Submit Questions to: Mark Atkins, Senior Buyer
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)
Email: Mark.A.Atkins@wv.gov

5. VERBAL COMMUNICATION: Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID: Building Roof Systems
BUYER: Mark Atkins, File #33
SOLICITATION NO.: CRFQ 0803 DOT1800000071
BID OPENING DATE: 03/13/2018
BID OPENING TIME: 1:30pm EST
FAX NUMBER: 304-558-3970

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)

- Technical
 Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: March 13, 2018 at 1:30pm EST

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

10. ALTERNATES: Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

13. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

15. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

17. WAIVER OF MINOR IRREGULARITIES: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

18. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

20. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

21. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

22. INTERESTED PARTY DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$100,000, the vendor must submit to the Purchasing Division a disclosure of interested parties to the contract, prior to contract award. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. "Interested parties" means: (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors; (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract; and (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency: Provided, That subdivision (2) shall be inapplicable if a business entity is a publicly traded company: Provided, however, That subdivision (3) shall not include persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.

23. WITH THE BID REQUIREMENTS: In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

GENERAL TERMS AND CONDITIONS:

- 1. CONTRACTUAL AGREEMENT:** Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
- 2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.
 - 2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
 - 2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.
 - 2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.
 - 2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.
 - 2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.
 - 2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.
 - 2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
 - 2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - 2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: **Initial Contract Term:** This Contract becomes effective on Upon award and extends for a period of one (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to two (2) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Other: See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of _____. The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. Subsequent to contract award, and prior to the insurance expiration date, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies mandated herein, including but not limited to, policy cancelation, policy reduction, or change in insurers. The insurance coverages identified below must be maintained throughout the life of this contract. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of:

\$1,000,000.00

Automobile Liability Insurance in at least an amount of: _____

Professional/Malpractice/Errors and Omission Insurance in at least an amount of: _____

Commercial Crime and Third Party Fidelity Insurance in an amount of: _____

Cyber Liability Insurance in an amount of: _____

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

9. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. [Reserved]

11. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____

Liquidated Damages Contained in the Specifications

12. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

13. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

14. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

15. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

20. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

23. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

24. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

25. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

26. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

27. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

28. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

29. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

30. BANKRUPTCY: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

31. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

32. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

33. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

34. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

35. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

36. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

37. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

38. PURCHASING AFFIDAVIT: In accordance with West Virginia Code § 5-22-1(i), the contracting public entity shall not award a contract for a construction project to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees. Accordingly, prior to contract award, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

39. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE: This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts (“Other Government Entities”). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

40. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

41. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

42. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of

Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

43. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

44. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.


All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

45. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$100,000, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. "Interested parties" means: (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors; (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract; and (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency: Provided, That subdivision (2) shall be inapplicable if a business entity is a publicly traded company: Provided, however, That subdivision (3) shall not include persons or business entities performing legal services related to the negotiation or drafting of the applicable contract. The Agency shall submit a copy of the disclosure to the Ethics Commission within 15 days after receiving the supplemental disclosure of interested parties.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Cover-All Buildings of WV, Inc.
(Name, Title)
Nathaniel G. Rohrig President
(Printed Name and Title)
P.O. Box 727, Bridgeport, WV 26330
(Address)
304-623-4827 304-622-5546
(Phone Number) / (Fax Number)
Nrohrig@aol.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Cover-All Buildings of WV, Inc
(Company)
 President
(Authorized Signature) (Representative Name, Title)
Nathaniel G. Rohrig President
(Printed Name and Title of Authorized Representative)
3-12-18
(Date)
304-623-4827 304-622-5546
(Phone Number) (Fax Number)

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$100,000 or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation.

"Interested party" or *"Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of *W. Va. Code* § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Contracting Business Entity: Cover-All Buildings of WV, Inc. Address: P.O. Box 727
Bridgeport, WV 26330

Authorized Agent: Nathaniel G. Rohrig Address: _____

Contract Number: CRFQ 0803 DOT1800000071 Contract Description: Building Roof Systems

Governmental agency awarding contract: _____

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

1. Subcontractors or other entities performing work or service under the Contract

Check here if none, otherwise list entity/individual names below.

2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)

Check here if none, otherwise list entity/individual names below.

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature:  Date Signed: 3-12-18

Notary Verification

State of West Virginia, County of Harrison

I, Nathaniel G. Rohrig, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 12 day of March, 2018.


Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency: _____
 submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Cover-All Building of WV, Inc.

Authorized Signature: [Signature] Date: 3-12-18

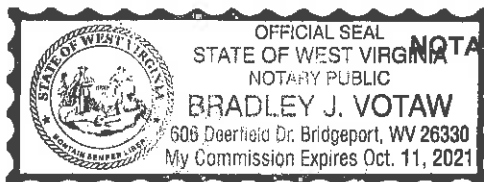
State of West Virginia

County of Harrison, to-wit:

Taken, subscribed, and sworn to before me this 12 day of March, 2018

My Commission expires 10/11, 2021.

AFFIX SEAL HERE



NOTARY PUBLIC

[Signature]



LIMITED WARRANTY

Britespan Warranty for West Virginia DOT Only

SCOPE OF LIMITED WARRANTY

Only the building components manufactured by BRITESPAN Building Systems Inc. and described in this agreement are warranted for manufacturer defects to the building owner.

This warranty is only valid if and when:

- i) Warranty has properly been registered by an authorized BRITESPAN Building Systems Inc. dealer as per the instruction in the building kit and,
- ii) BRITESPAN Building Systems Inc. receives written notice and proof of claim (photos where possible) of any manufacturers defects during the period of warranty coverage.

Resolve of the structural defect(s) may be through the supply of new, used or rebuilt parts, or on-site repair, at the option of BRITESPAN Building Systems Inc. If BRITESPAN Building Systems Inc. chooses to repair or replace the defective product or component, BRITESPAN Building Systems Inc. shall be allotted reasonable time to do so.

This warranty includes the explicit warranty of BRITESPAN Building Systems Inc. There are no other warranties expressed or implied. This warranty is made and is not to be replaced by any warranties of marketability or suitability for a particular purpose. Warranty specifications are applicable to units sold and erected in Canada and the United States only. Warranty may vary outside of those areas. Please contact your local authorized BRITESPAN Building Systems Inc. representative for more details.

WARRANTY REGISTRATION

Each BRITESPAN Building Systems Inc. building kit will be shipped with a warranty registration package. Follow all of the instructions in the package and return the warranty registration card filled out accompanied with photos as outlined in the package. All warranty registrations must be submitted for registration review within 60 days of building installation. A certificate of warranty will be issued to your local authorized BRITESPAN Building Systems Inc. representative once all of the requirements have been met for registration and approved by BRITESPAN Building Systems Inc.

A warranty certificate may be withheld if the building or any components are not assembled in accordance with the installation procedures indicated in the installation manual. A warranty certificate will be issued upon correction of identified deficiencies supported with new photographs to complete the verification.

If the building changes ownership, the new owner must apply for a warranty transfer to assume remaining years of warranty on the existing structure(s). Contact your local authorized BRITESPAN Building Systems Inc. dealer to obtain a transfer of warranty package. A one-time per transfer fee may apply.

STANDARD LIMITED WARRANTY COVERAGE PERIODS:

| COMPONENT | ATLAS / GENESIS / APEX / EASY ACCESS SERIES |
|--|---|
| MAIN STRUCTURE COVER (NON-FR) ⁽⁴⁾ | 16 |
| MAIN STRUCTURE COVER (FR) ⁽⁴⁾ | 10 |
| END FABRIC (NON—FR) ⁽⁵⁾ | 3 |
| END FABRIC (FR) ⁽⁵⁾ | 3 |
| MAIN STEEL FRAMEWORK ⁽²⁾ | 15 |
| END STEEL FRAMEWORK (HSS) ⁽³⁾ | 15 |

Building needs to be installed by factory trained approved and qualified personnel.

NOTES ON LIMITED WARRANTY COVERAGE PERIODS

- All repair or replacement costs are pro-rated as per table 3-1 on page one of this document. (1)
- Consists of main building trusses, purlins and manufactured brackets (2)
- Consists of vertical columns, horizontal members, and manufactured brackets. Does not include cables or fasteners. (3)
- Consists of main building cover panels only. Does not include any fastening system components (4)
- Consists of end enclosure panels only (standard FR & non-FR fabrics only). Does not include any fastening system components. End enclosure panels must be properly supported by a BRITESPAN Building Systems Inc. end support system or an alternative system designed and engineered to match the end panel fastening system. The alternative system must also meet site wind load and building safety requirements as per engineer requirements. (5)

STANDARD TERMS OF LIMITED WARRANTY COVERAGE

Should any components be found to have manufacturer's defects under normal use, the defect(s) will be repaired or the components replaced, at the discretion of BRITESPAN Building Systems Inc. The building owner will be responsible for the cost of the repair or replacement parts pro-rated per year following the original purchase date, plus the cost of delivery and installation of replacement parts, if required. All replacement parts are F.O.B. Lucknow, Ontario, Canada. Any parts requiring replacement under this warranty are subsequently warranted only for the remaining time period of the unexpired portion of the warranty that is applicable to the original product.

Due to continual product development, over time certain fabric colours or steel components may become unavailable. In those incidents, BRITESPAN Building Systems Inc. reserves the right to substitute replacement components with those that are comparable in function, quality, and price to the original. BRITESPAN Building Systems Inc. is neither responsible nor liable if the replacement component varies in appearance from the original.

LIMITS AND RELEASE OF LIABILITY

This warranty does not apply to defects or damages resulting from a) improper installation and /or installation that is not in accordance with BRITESPAN Building Systems Inc. installation manuals and procedures; b) improper or inadequate maintenance of the structure; c) any modification or alteration of the product; d) misuse, neglect, or abuse of the product; e) accident; f) repair or alteration by an unauthorized BRITESPAN Building Systems Inc. dealer; g) integration of products or accessories not manufactured specifically for use in a BRITESPAN Building Systems Inc.; h) exposure to corrosive elements; i) corrosion resulting from structure applications, environment within the structure, and/or insufficient maintenance or any cause other than a defect in an item's described corrosion protection; j) use of abrasive cleaning methods, chemicals, or solvents; k) exposure to conditions in excess of, or not meeting, as the case may be, wind and snow load specifications for building model; l) design of foundation and/or installation and/or deficiency in the foundation; m) product upgrades; n) product recall; o) normal wear and tear; p) wear caused by multiple installations; q) storage and/or handling of building components; r) an act of God; s) This warranty does not apply to cosmetic defects or deterioration, including discolouration.

BRITESPAN Building Systems Inc. will not be liable for any damages incurred during or as a result of installation of a BRITESPAN Building Systems Inc. product, whether or not in accordance with the installation instructions. In no event will BRITESPAN Building Systems Inc., any distributor, or the selling dealer be liable for any direct, indirect, special, incidental, or consequential damages (including loss of profit, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if BRITESPAN Building Systems Inc., its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. By registering for and taking benefit of the warranty, the building owner expressly releases and discharges BRITESPAN Building Systems Inc., all distributors, and all dealers from all claims, causes of action, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the building owner ever had, now has, or may have by reason of the assembly, erection, use and/or operation of any BRITESPAN Building Systems Inc. All references to building owners, BRITESPAN Building Systems Inc., all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

BRITESPAN Building Systems Inc. and its authorized dealers are independent businesses; authorized dealers are not agents or legal representatives of BRITESPAN Building Systems Inc. Authorized dealers have no right or authority to assume or create any legal obligation or responsibility, express or implied, on behalf of BRITESPAN Building Systems Inc., or to bind BRITESPAN Building Systems Inc. in any manner whatsoever. BRITESPAN Building Systems Inc. shall have no liability for any acts, errors, omissions, workmanship, supplies, advice, representations or misrepresentations of any authorized dealer.

Certificate of Registration

This is to certify that QUASAR has certified:



Plant & Design Office: 37651 Amberly Road, R R # 1, Lucknow, ON N0G 2H0
Plant: Farley Group, 6 Kerr Crescent, Puslinch, ON N0B 1J0
Design Office: Seberras Professional Engineering, 75 Plant Farm Rd, Brantford, ON

to the Certification Standard:

CSA A660-10

"Certification of Manufacturers of Steel Building Systems"

Initial Registration
September 24, 2010

Date of Issue
September 24, 2017

Date of Expiry
September 24, 2018

Certificate Number
OLYMP0

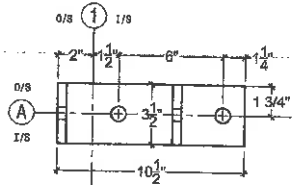
Scope: Design and manufacture steel building systems



QUASAR
management systems


Registrar



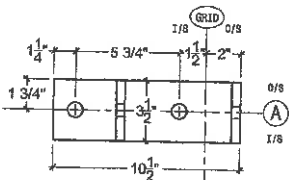


VIEW A

ANCHOR-BOLT HOLES: $\varnothing 1"$
 PLATE THICKNESS: $1/2"$
 PART NUMBER: 188



LEFT END

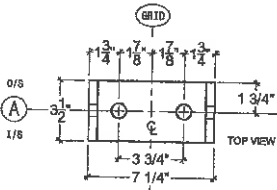


VIEW B

ANCHOR-BOLT HOLES: $\varnothing 1"$
 PLATE THICKNESS: $1/2"$
 PART NUMBER: 188



RIGHT END

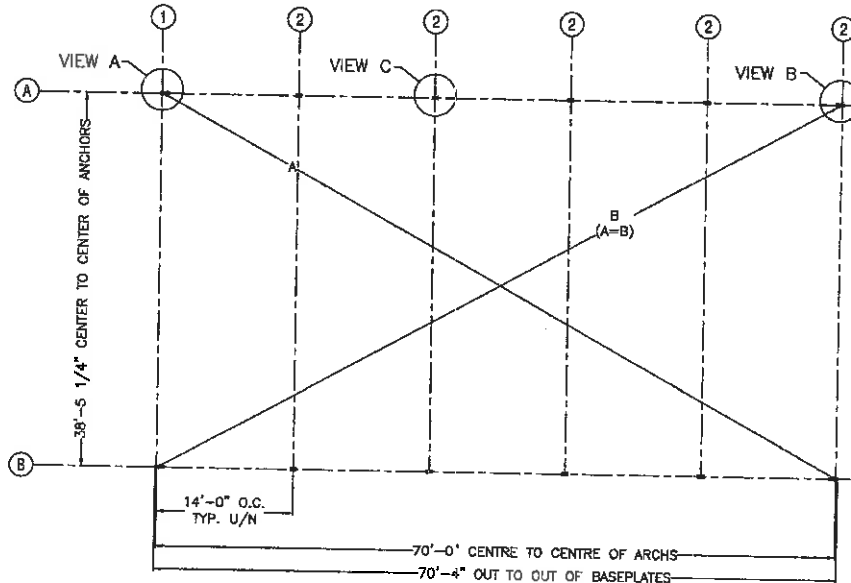


VIEW C

ANCHOR-BOLT HOLES: $\varnothing 1"$
 PLATE THICKNESS: $1/2"$
 PART NUMBER: 187



COMMON



37651 Amberley Road
 Lucknow, ON, Canada
 N0G 2H0
 PH: 1-519-528-2922
 FAX: 1-519-528-2880

| REV. | DESCRIPTION | DATE |
|------|---------------------|-------------|
| 1 | ISSUED FOR BID ONLY | 12 MAR 2016 |
| | | |
| | | |
| | | |
| | | |
| | | |

DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 812 N. OHIO AVE.
 CLARKSBURG, WV. 26301

CUSTOMER:
 WVDOH
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918

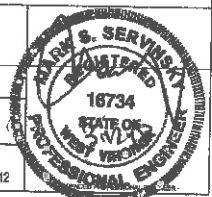
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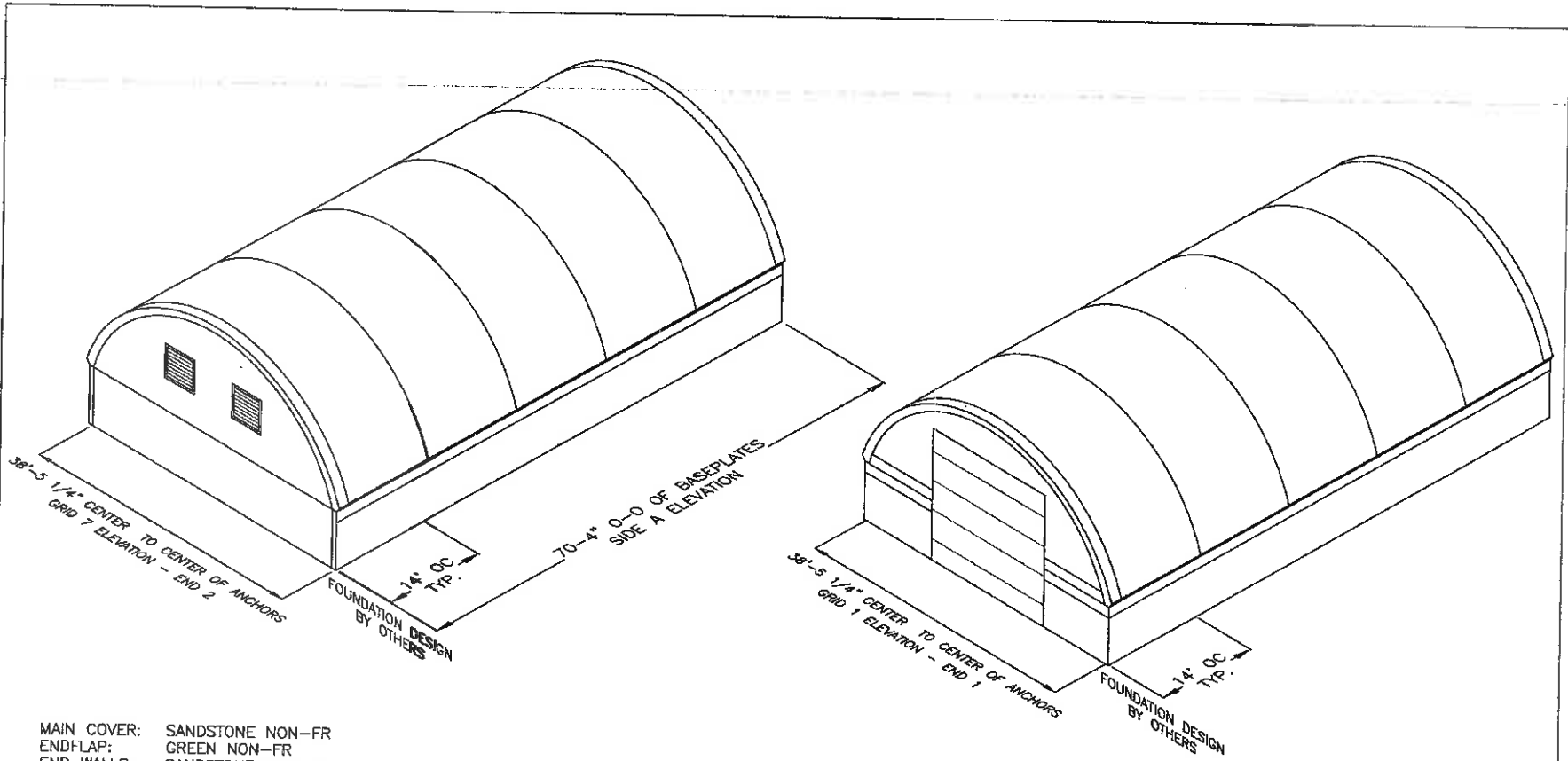
DRAWN BY:
 ML
 CHECKED BY:
 EM

PROJECT:
 ATLAS 24
 40'x70' 320 GM
 14' oc


ORDER ID:
 SO-5907
 WIDTH-STEEL-FAB-HSS-HSS DRDP:
 40-320-320-18-0

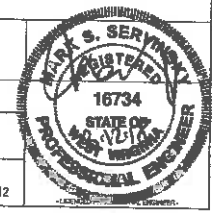
DRAWING TITLE:
 BASEPLATE LAYOUT
 SHEET NO.:
 FB-2
 PART NO.:
 002 / 12





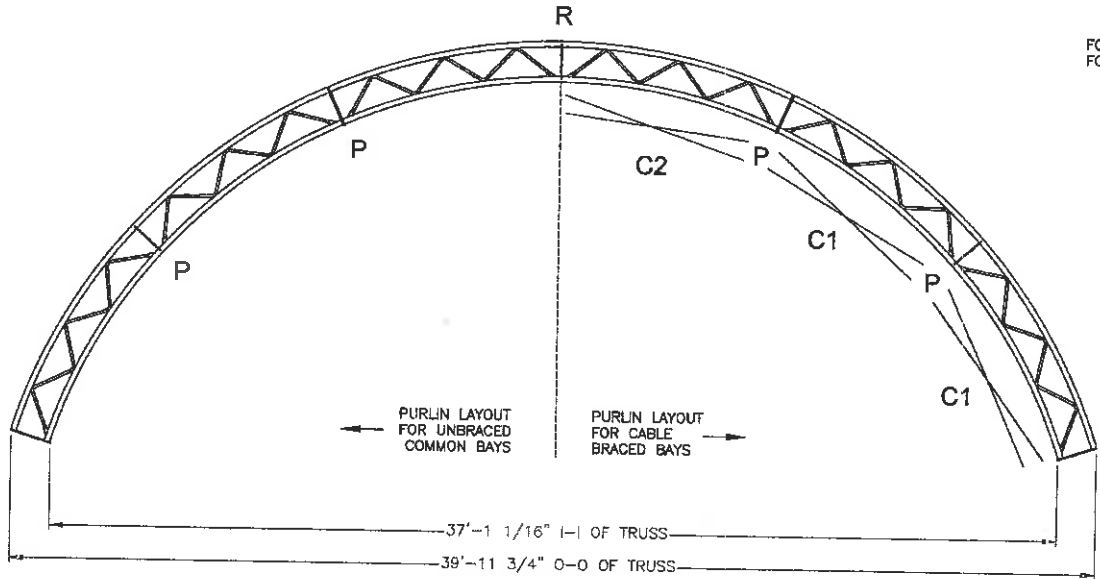
MAIN COVER: SANDSTONE NON-FR
 ENDFLAP: GREEN NON-FR
 END WALLS: SANDSTONE NON-FR

| | | | | |
|---|---|---|--|---|
|  | 37651 Amberley Road Locknow, ON, Canada N0G 2H0 PH: 1-519-528-2922 FAX: 1-519-628-2890 | REV: 1 DESCRIPTION: ISSUED FOR BID ONLY DATE: 12/MAR/2018 | DEALER: COVER-ALL BUILDINGS OF WEST VIRGINIA 812 N. OHIO AVE. CLARKSBURG, WV. 26301 | CUSTOMER: WVDH 200 SAMAITAN DRIVE SHADY SPRINGS, WV. 25918 |
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ATLAS18 - 40'w

| | |
|------|------------------------|
| Qty. | TRUSS & PART No. |
| | INTERIOR TRUSS |
| 3 | 40' COMMON TRUSS - 104 |
| | END TRUSS |
| 3 | 40' END TRUSS - 105 |



FOR PURLIN LOCATIONS SEE: SD-1 pg. 008
FOR CABLE LOCATIONS SEE SD-2 pg. 009

| | 16' BAY | | 14' BAY | | 12' BAY | | 10' BAY | | 8' BAY | | 6' BAY | | 5' BAY | |
|----------|----------|--------|----------|--------|----------|--------|----------|--------|---------|--------|----------|--------|----------|--------|
| A-18 40' | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH |
| C1 CABLE | 861220-9 | 220" | 861200-9 | 200" | 861179-9 | 179" | 861160-9 | 160" | 86142-9 | 142" | 861127-9 | 127" | 861121-9 | 121" |
| C2 CABLE | | | | | | | | | | | | | | |
| C3 CABLE | | | | | | | | | | | | | | |

| BRACING LEGEND | |
|----------------|----------------|
| P | = PURLIN |
| R | = RIDGE PURLIN |
| X | = CROSS CABLE |

LENGTHS CHECKED DIMENSIONAL - 02
LENGTHS UPONSET DIMENSIONAL - 02



37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-528-2922
FAX: 1-519-528-2890

| REV. | DESCRIPTION | DATE |
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| 1 | ISSUED FOR BID ONLY | 12/MAR/2016 |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV 25918

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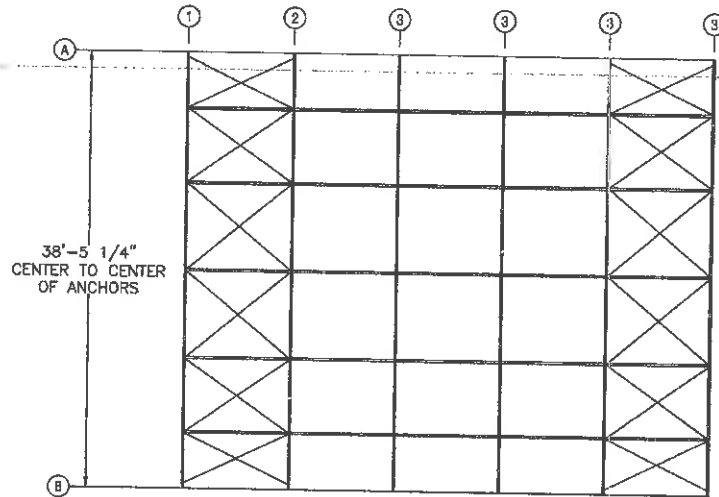
DRAWN BY:
ML
CHECKED BY:
EM

PROJECT:
ATLAS 24
40x70' 320 GM
14' oc

ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSS-DROP:
40-320-320-18-0

DRAWING TITLE:
PURLIN & X-CABLE LAYOUT
SHEET NO.:
FB-4
PAGE NO.:
004 / 12

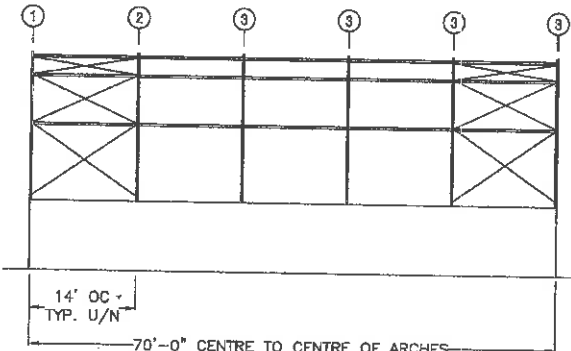




PLAN VIEW

FOR PURLIN DETAILS SEE:
SD-1 pg. 008
FOR CABLE DETAILS SEE:
SD-2 pg. 009

NOTE: THIS BUILDING USES ALL
2 7/8" 140c. PURLINS



ELEVATION



37851 Amberley Road
Luganow, ON, Canada
N0G 2H0
PH: 1-819-528-2922
FAX: 1-819-528-2890

| REV. | DESCRIPTION | DATE |
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| 1 | ISSUED FOR BID ONLY | 12.MAR.2018 |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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EM

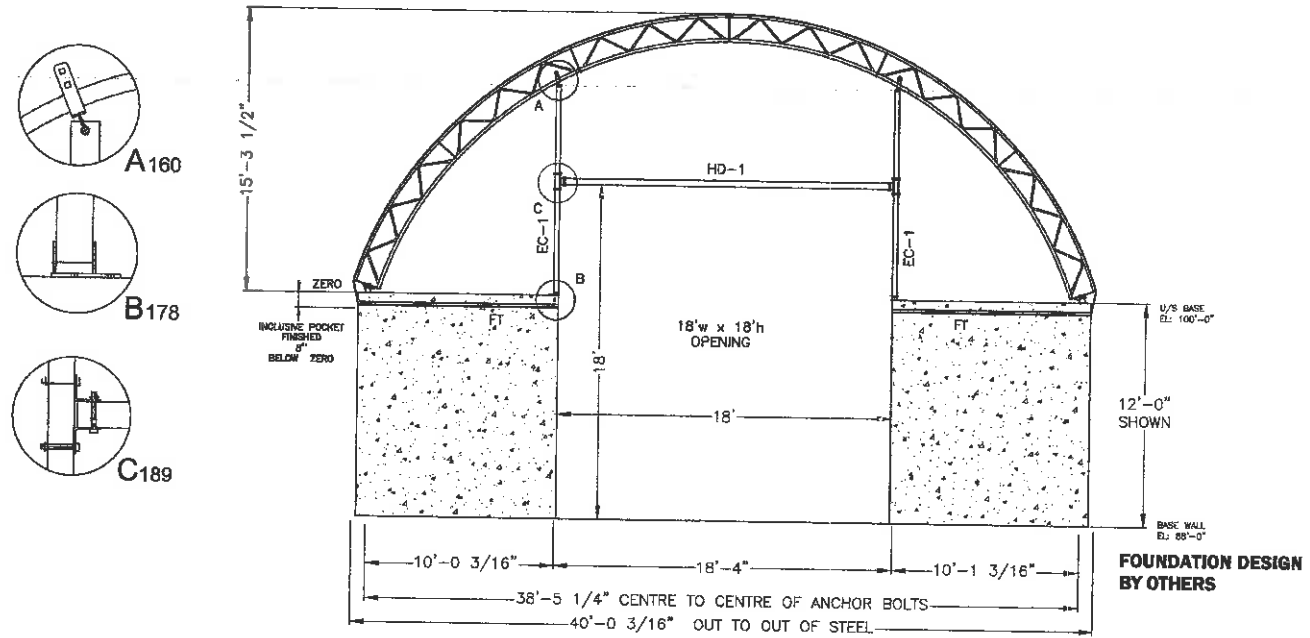
PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSSDROP:
40-320-320-18-0

DRAWING TITLE:
BRACING LAYOUT
SHEET NO.:
FB-5
PAGE NO.:
005 / 12



| MARK# | QTY | COMPONENTS (in) |
|-------|-----|--|
| EC-1 | 2 | 4"x4"x1/8" 145° HSS |
| 178 | 2 | BASE PLATE - 4X4 HSS |
| 160 | 2 | BRKT -TOP SADDLE ASSY 4" - 2 3/8" CORD |
| FT | - | 2-3/8" DIA. 14 G# FASTENING TUBE CUT TO LENGTH |
| 195 | 2 | BRACKET - 3X3X4 HORIZONTAL ANGLE |
| HD-1 | 1 | 3"x6"x3/16" 215° HSS HEADER |

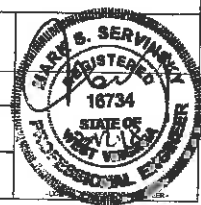


37651 Amberley Road
 Lucknow, ON, Canada
 N0G 2H0
 TEL: 1-519-828-2922
 FAX: 1-518-528-2890

| REV. | DESCRIPTION | DATE |
|------|---------------------|-------------|
| 1 | ISSUED FOR BID ONLY | 12.MAR.2018 |

DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 812 N. OHIO AVE.
 CLARKSBURG, WV.26301

CUSTOMER:
 WVD0H
 200.SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918



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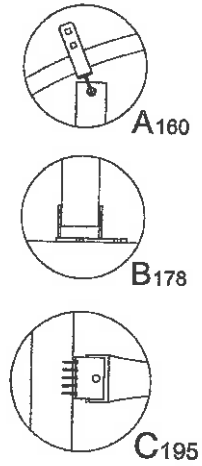
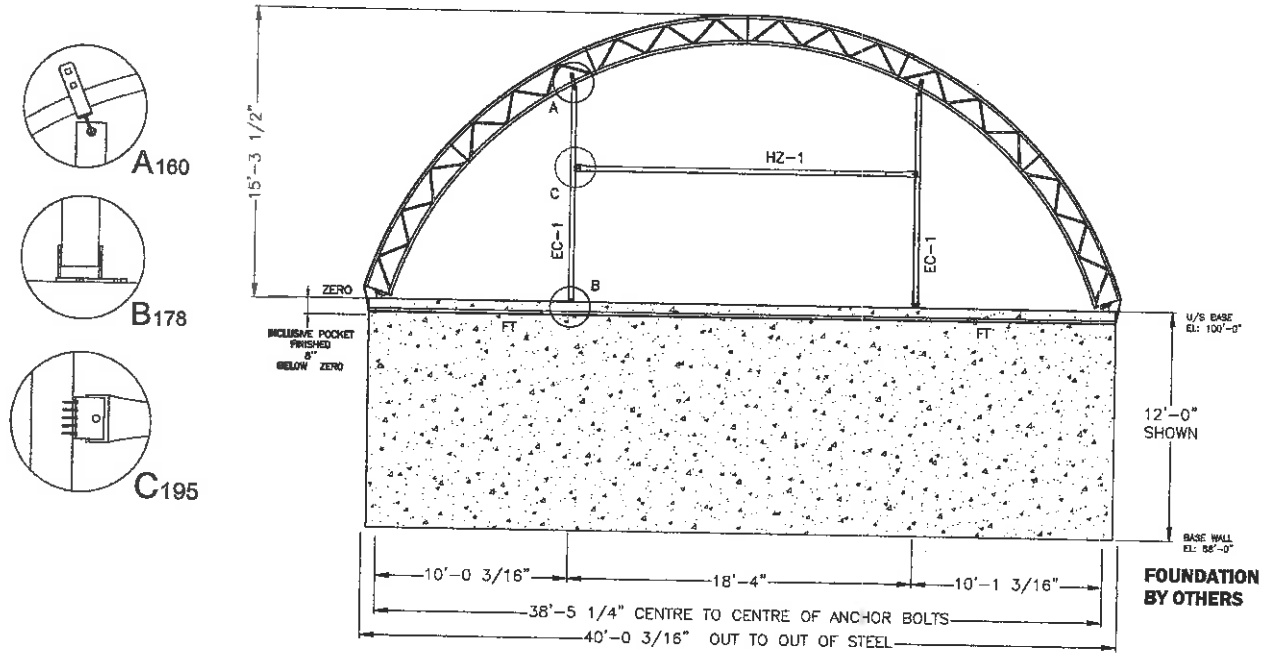
DRAWN BY:
 ML
 CHECKED BY:
 EM

PROJECT:
 ATLAS 24
 40'x70' 320 GM
 14' oc

ORDER ID:
 SO-5907
 WIDTH-STEEL-FAB-HSS-HSS-DROP:
 40-320-320-18-0

DRAWING TITLE:
 ENDWALL LAYOUT
 SHEET NO.:
 EW-1
 PAGE NO.:
 006a / 12

| MARK# | QTY | COMPONENTS (in) |
|-------|-----|---|
| EC-1 | 2 | 4"x4"x1/8" 139" HSS |
| 178 | 2 | BASE PLATE - 4X4 HSS |
| 160 | 2 | BRKT -TOP SADDLE ASSY 4" - 2 3/8" CORD |
| FT | -- | 2-3/8" DIA 14 GA FASTENING TUBE CUT TO LENGTH |
| 195 | 2 | BRACKET - 3X3X4 HORIZONTAL ANGLE |
| HZ-1 | 1 | 32000039 (2 1/2" - 14GA + 32000146 (2 7/8" 14 GA) |



BRES PAN
BUILDING SYSTEMS INC

37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
TEL: 1-519-828-2922
FAX: 1-519-528-2880

| REV | DESCRIPTION | DATE |
|-----|---------------------|-------------|
| 1 | ISSUED FOR BID ONLY | 12.MAR.2018 |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE
CLARKSBURG, WV 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV 25918

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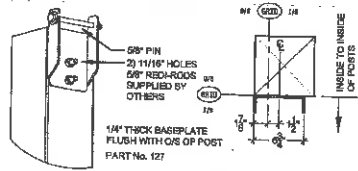
DRAWN BY:
ML
CHECKED BY:
EM

PROJECT:
ATLAS 24
40x70' 320 GM
14' oc

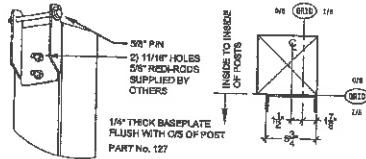
ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSS-DROP:
40-320-320-18-0

DRAWING TITLE:
ENDWALL LAYOUT
SHEET NO.:
EW-2
PAGE NO.:
006b / 12

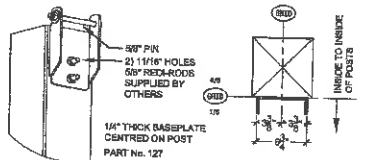




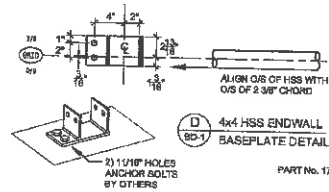
A LEFT END - 220
BASEPLATE DETAIL



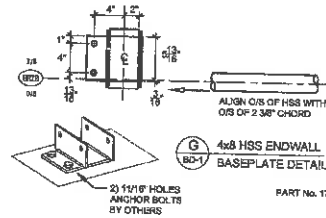
B RIGHT END - 220
BASEPLATE DETAIL



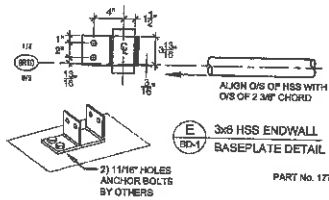
C RIGHT END - 220
BASEPLATE DETAIL



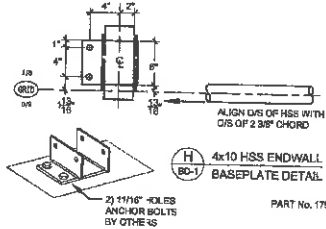
D 4x4 HSS ENDWALL
BASEPLATE DETAIL



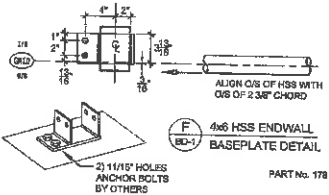
G 4x8 HSS ENDWALL
BASEPLATE DETAIL



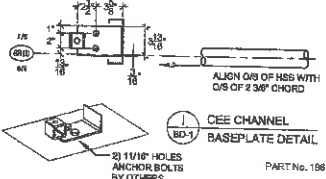
E 3x6 HSS ENDWALL
BASEPLATE DETAIL



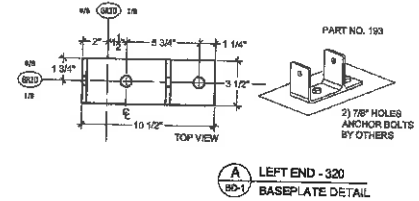
H 4x10 HSS ENDWALL
BASEPLATE DETAIL



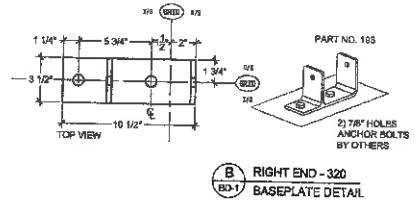
F 4x6 HSS ENDWALL
BASEPLATE DETAIL



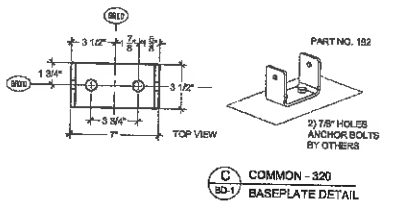
I CEE CHANNEL
BASEPLATE DETAIL



A LEFT END - 320
BASEPLATE DETAIL



B RIGHT END - 320
BASEPLATE DETAIL



C COMMON - 320
BASEPLATE DETAIL



37651 Amberley Road
Lucknow, ON, Canada
N9G 2H9
PH: 1-519-528-2922
FAX: 1-519-528-2890

| REV: | DESCRIPTION: | DATE: |
|------|---------------------|-------------|
| 1 | ISSUED FOR BID ONLY | 12.MAR.2016 |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200-SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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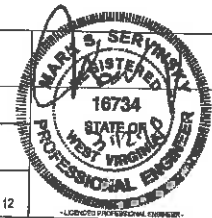
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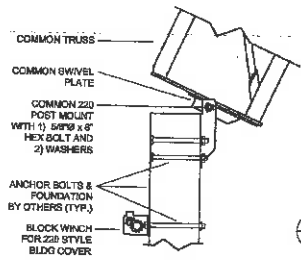
PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

ORDER ID:
SC-5907
WIDTH-STEEL-FAB-HSS-HSS-DROP:
40-320-320-18-0

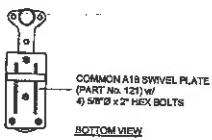
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BASEPLATE DETAILS
SHEET NO.:
BD-1

PAGE NO.:
007 / 12

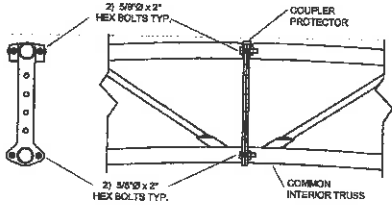




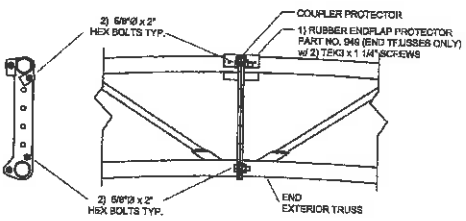
A 220 COMM. POST MOUNT CONNECTION DETAIL
SD-1



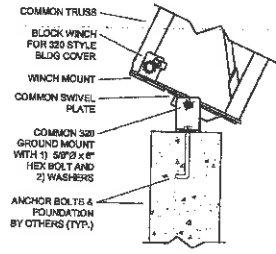
B 220 END POST MOUNT CONNECTION DETAIL
SD-1



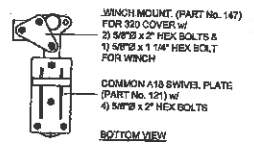
C COMMON TRUSS CONNECTION DETAIL
SD-1



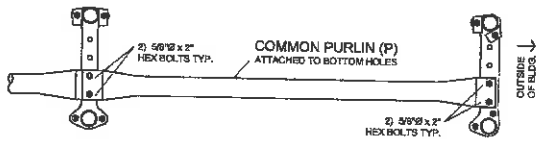
D END TRUSS CONNECTION DETAIL
SD-1



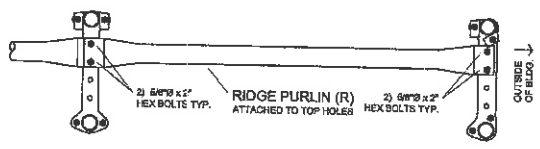
A 320 COMM. GROUND MOUNT CONNECTION DETAIL
SD-1



B 320 END GROUND MOUNT CONNECTION DETAIL
SD-1



E COMMON PURLIN CONNECTION DETAIL
SD-1



F RIDGE PURLIN CONNECTION DETAIL
SD-1

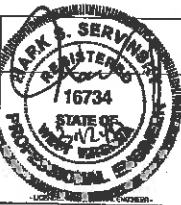


37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PRT: 1-519-528-2922
FAX: 1-519-528-2880

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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918



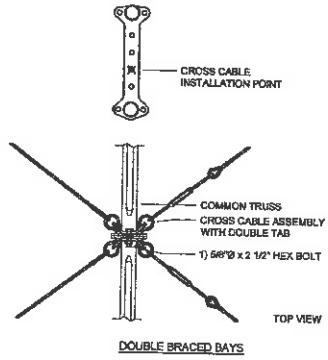
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ML
CHECKED BY:
EM

PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

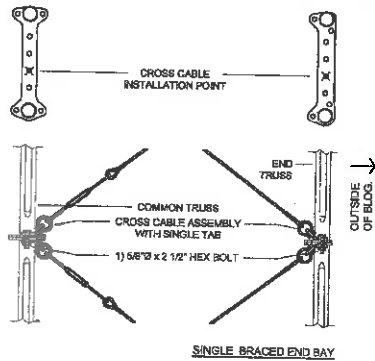
ORDER ID:
SO-5907
WIDTH-STEEL FAB-HSS-HSSDROP:
40-320-320-18-0

DRAWING TITLE:
STANDARD DETAILS
SHEET NO.:
SD-1
PAGE NO.:
008 / 12



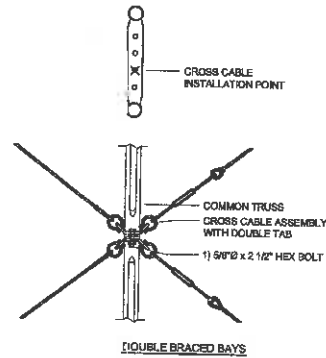
DOUBLE BRACED BAYS

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.



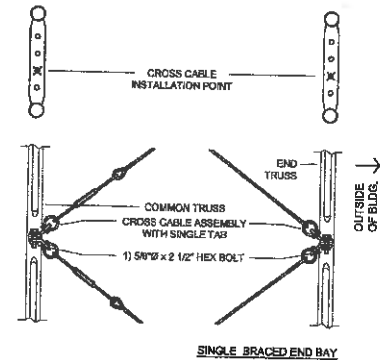
SINGLE BRACED END BAY

A CROSS CABLES AT DOGBONE CONNECTION DETAILS
SD-2



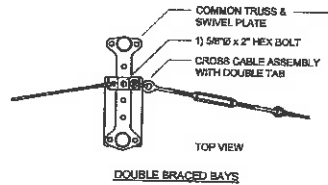
DOUBLE BRACED BAYS

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.



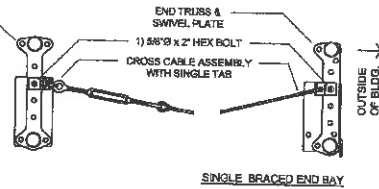
SINGLE BRACED END BAY

B CROSS CABLES AT KINGPIN CONNECTION DETAILS
SD-2



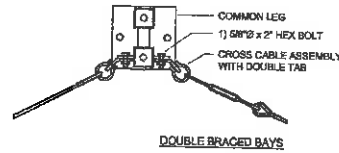
DOUBLE BRACED BAYS

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.

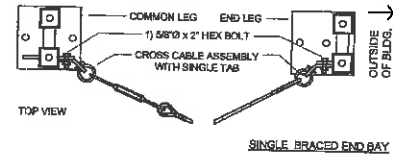


SINGLE BRACED END BAY

C CROSS CABLES AT SWIVEL PLATE CONNECTION DETAILS
SD-2



DOUBLE BRACED BAYS



SINGLE BRACED END BAY

D CROSS CABLES AT LEG CONNECTION DETAILS
SD-2



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Lucknow, ON, Canada
N0G 2P0
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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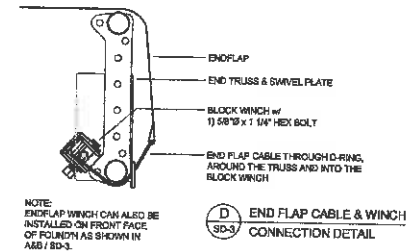
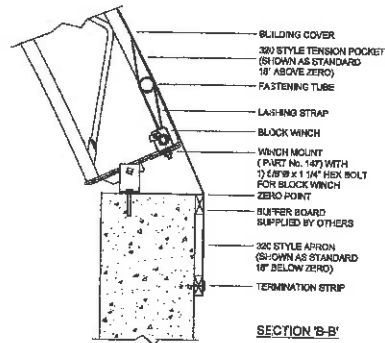
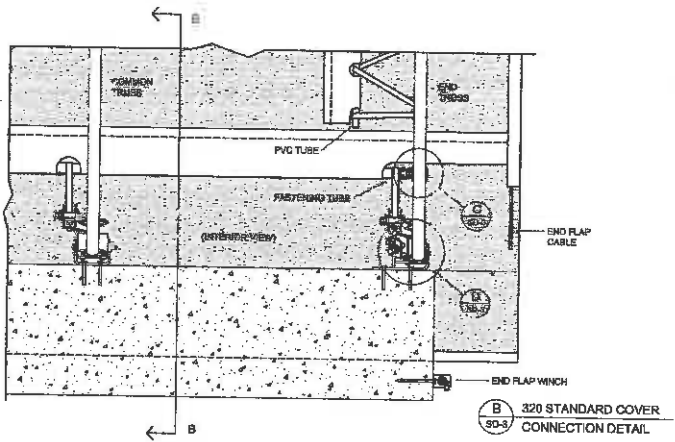
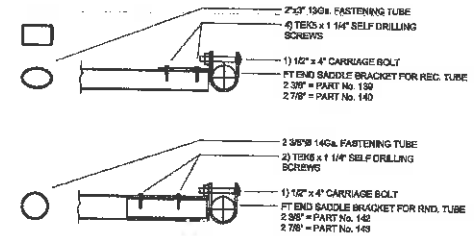
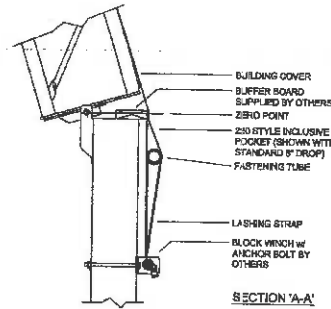
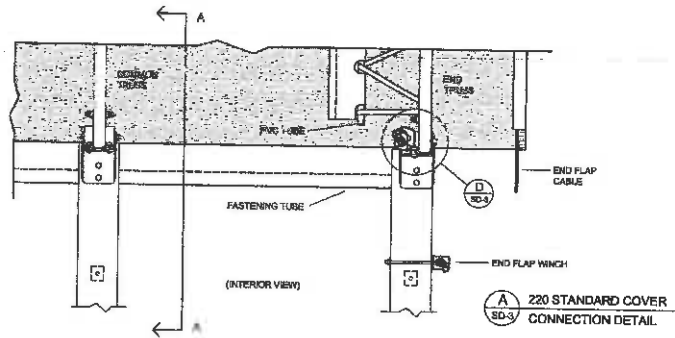
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EM

PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

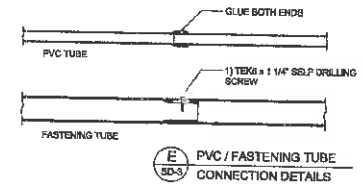
ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSSDROP:
40-320-320-18-0

DRAWING TITLE:
STANDARD DETAILS
SHEET NO.:
SD-2
PAGE NO.:
009 / 12





NOTE: ENDOFLAP WINCH CAN ALSO BE INSTALLED ON FRONT FACE OF POLYMER AS SHOWN IN A&B / SD-3.



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N0G 2H0
TEL: 1-519-528-2922
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| REV. | DESCRIPTION | DATE |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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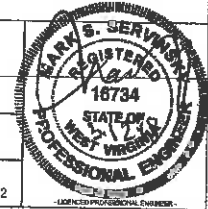
DRAWN BY:
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EM

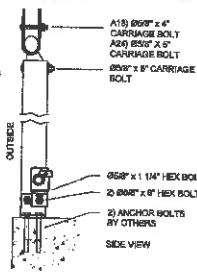
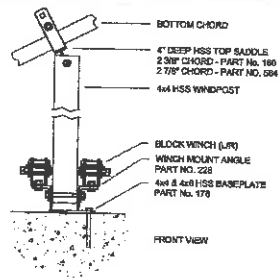
PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSSDROP:
40-320-320-18-0

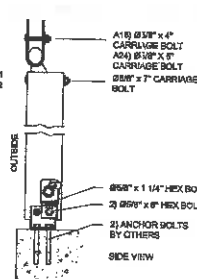
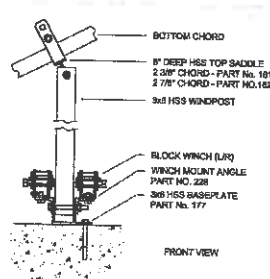
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STANDARD DETAILS

SHEET NO.:
SD-3
PAGE NO.:
010 / 12

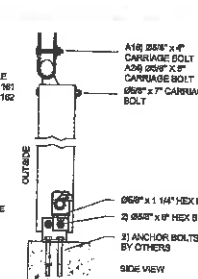
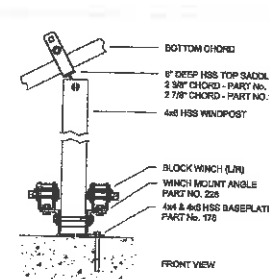




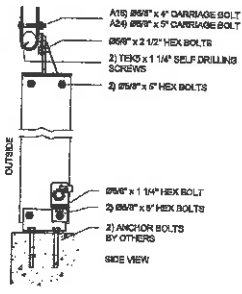
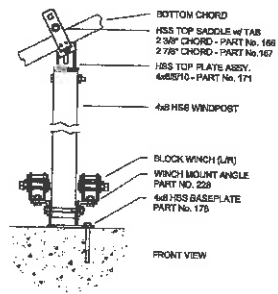
A 4x4 HSS WINDPOST CONNECTION DETAILS
ED-1



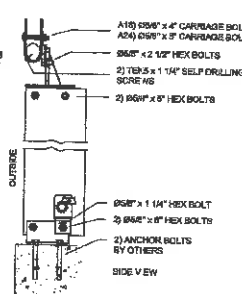
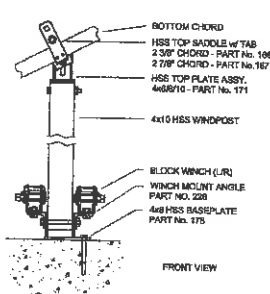
B 3x8 HSS WINDPOST CONNECTION DETAILS
ED-1



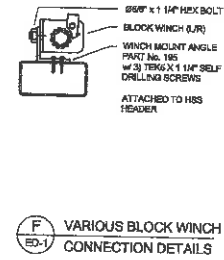
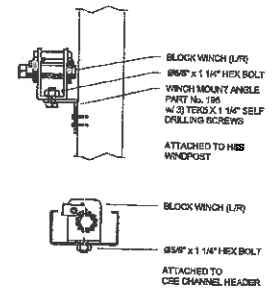
C 4x8 HSS WINDPOST CONNECTION DETAILS
ED-1



D 4x8 HSS WINDPOST CONNECTION DETAILS
ED-1



E 4x10 HSS WINDPOST CONNECTION DETAILS
ED-1



F VARIOUS BLOCK WINCH CONNECTION DETAILS
ED-1



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Lucknow, ON, Canada
N0G 2H0
PFC: 1-519-328-2822
FAX: 1-519-528-2880

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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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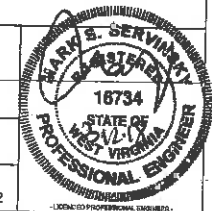
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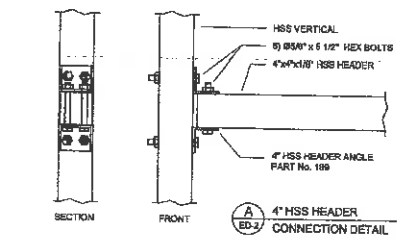
PROJECT:
ATLAS 24
40'x70' 320 GM
14' oc

ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSS DROP:
40-320-320-18-0

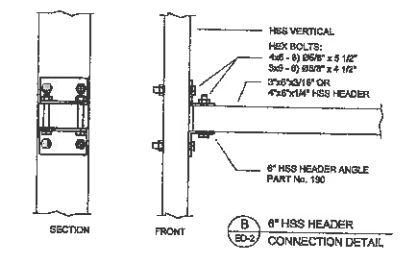
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EAVE DETAILS
SHEET NO.:
ED-1

PAGE NO.:
011 / 12

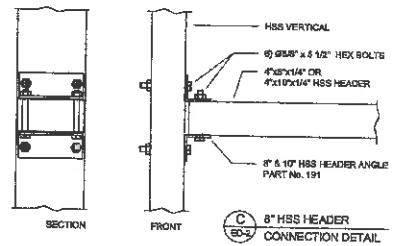




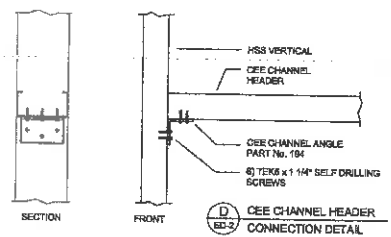
A
ED-2
4\"/>



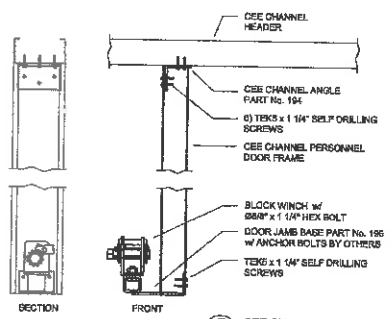
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ED-2
6\"/>



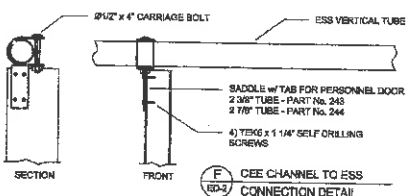
C
ED-2
8\"/>



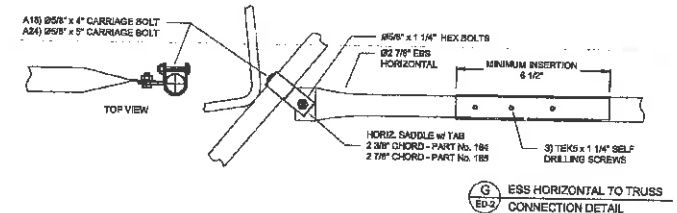
D
ED-2
CEE CHANNEL HEADER
CONNECTION DETAIL



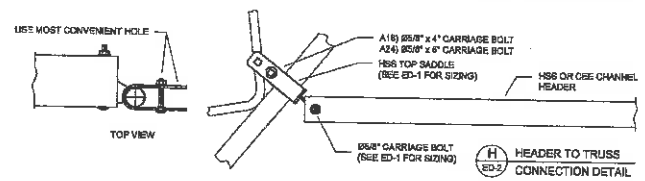
E
ED-2
CEE CHANNEL MAN DOOR
CONNECTION DETAILS



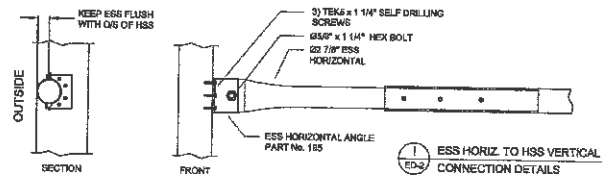
F
ED-2
CEE CHANNEL TO ESS
CONNECTION DETAIL



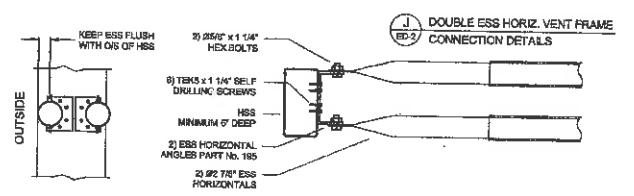
G
ED-2
ESS HORIZONTAL TO TRUSS
CONNECTION DETAIL



H
ED-2
HEADER TO TRUSS
CONNECTION DETAIL



I
ED-2
ESS HORIZ TO HSS VERTICAL
CONNECTION DETAILS



J
ED-2
DOUBLE ESS HORIZ VENT FRAME
CONNECTION DETAILS

BRITESPAN
BUILDING SYSTEMS INC
37651 Amberley Road
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200.SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

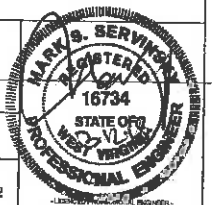
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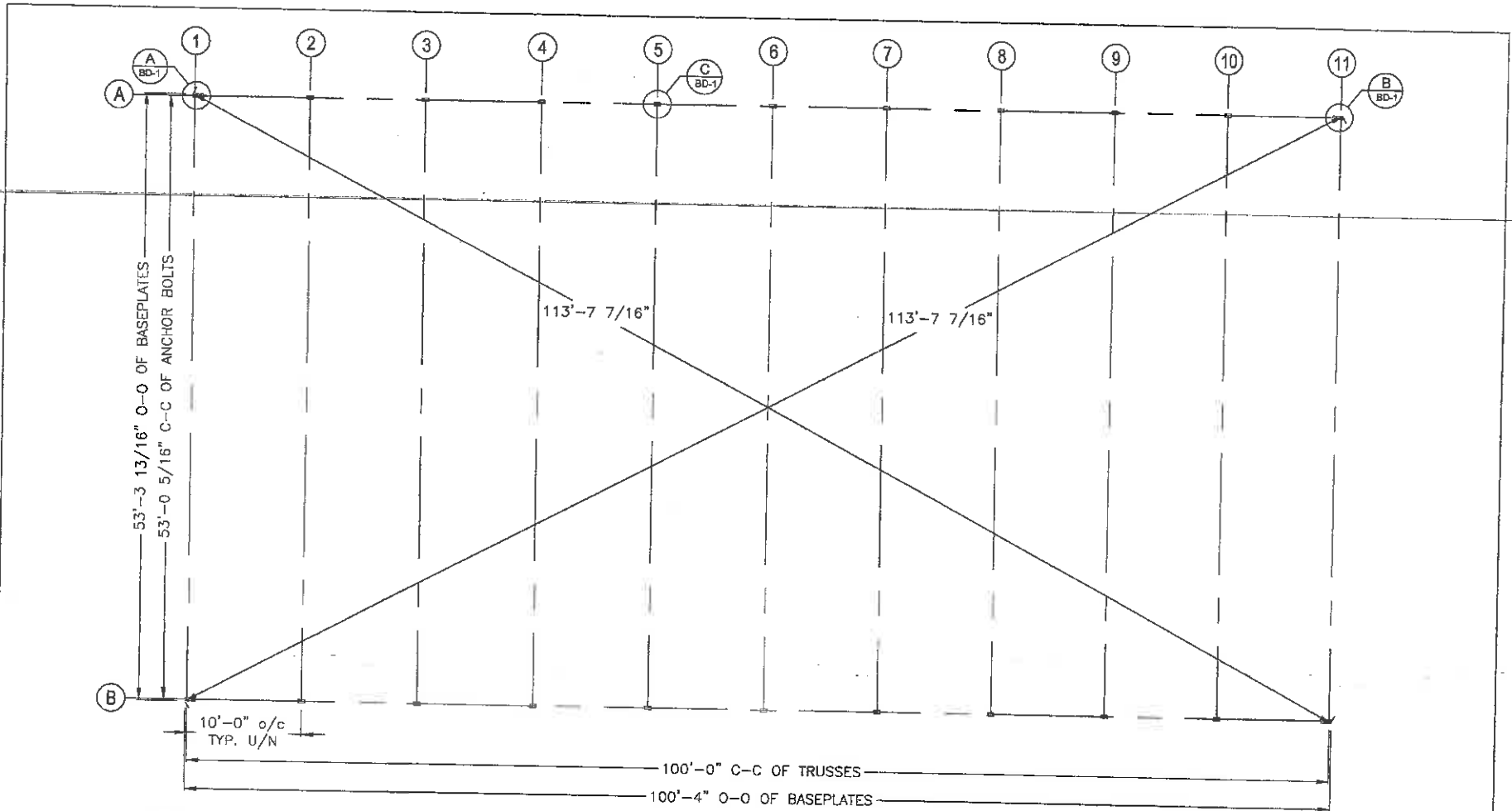
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ML
CHECKED BY:
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PROJECT:
ATLAS 24
40'x70' 320 GM
14' OC

ORDER ID:
SO-5907
WIDTH-STEEL-FAB-HSS-HSSDROP:
40-320-320-18-0

DRAWING TITLE:
ENDWALL DETAILS
SHEET NO.:
ED-2
PAGE NO.:
012 / 12





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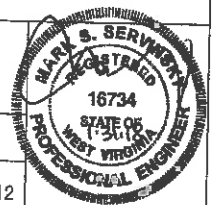
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 TF
 CHECKED BY:
 RH

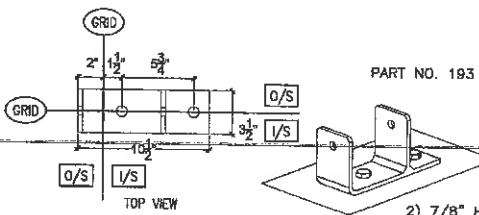
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DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 PO BOX 727
 BRIDGEPORT, WV. 26330

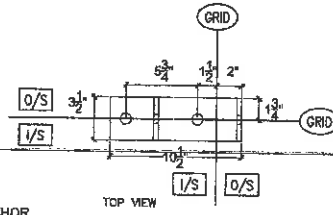
PROJECT:
 ATLAS 18
 55' x 100' - 320 GM
 10' O.C.

| | | |
|---|---|------------------------------------|
| CUSTOMER: BBL CARLTON LLC ROUTE 2 & CR FAIRGROUND ROAD POINT PLEASANT, WV. 24740 | ORDER ID: SO# 5651-02 | DRAWING TITLE: BASEPLATE LAYOUT |
| | WIDTH-STEEL-FAB-HSS-HSS/DROP: 55-320-220-18-// | SHEET NO.: FB-2 |
| | | PAGE NO.: 002/12 |

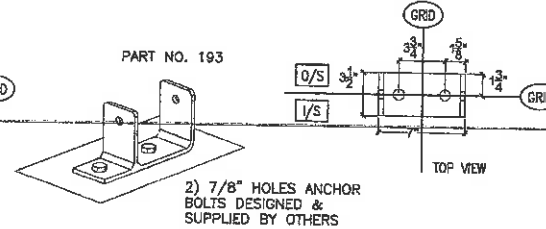




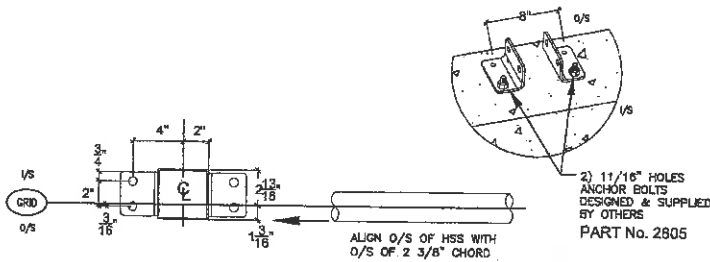
A ATLAS 18 - LEFT
BD-1 BASEPLATE DETAIL



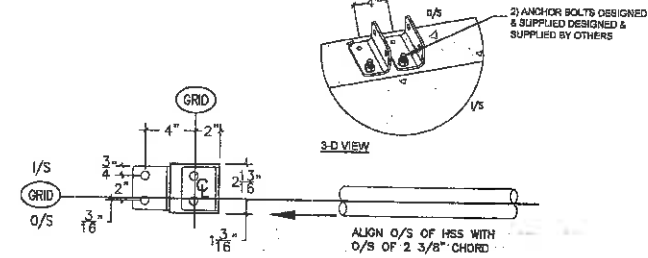
B ATLAS 18 - RIGHT
BD-1 BASEPLATE DETAIL



C ATLAS 18 - COMMON
BD-1 BASEPLATE DETAIL



D 4x4 HSS ENDWALL
BD-1 BASEPLATE DETAIL



E DOOR FRAME
BD-1 4X4 HEADER/BASE ANGLE

ANCHOR BOLTS:
PLATE THICKNESS: #11/16"
PART NUMBER: 1/4"
2805



37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-628-2622
FAX: 1-519-628-2890

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| 1 | ISSUED FOR REVIEW | 12 JAN 2016 |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
PO BOX 727
BRIDGEPORT, WV. 26330

CUSTOMER:
BBL CARLTON LLC
ROUTE 2 & CR FAIRGROUND ROAD
POINT PLEASANT, WV. 24740

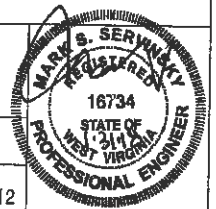
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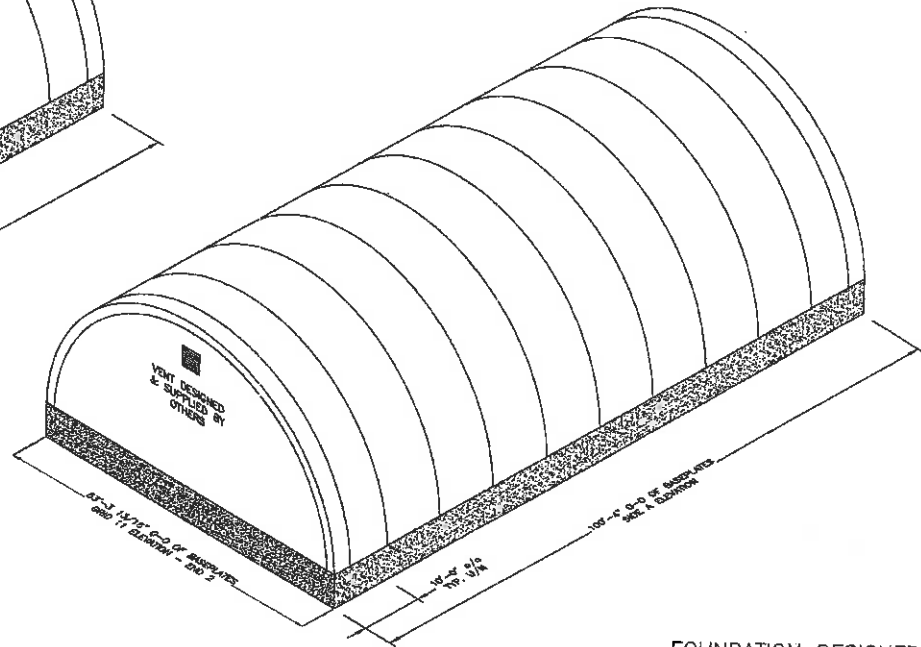
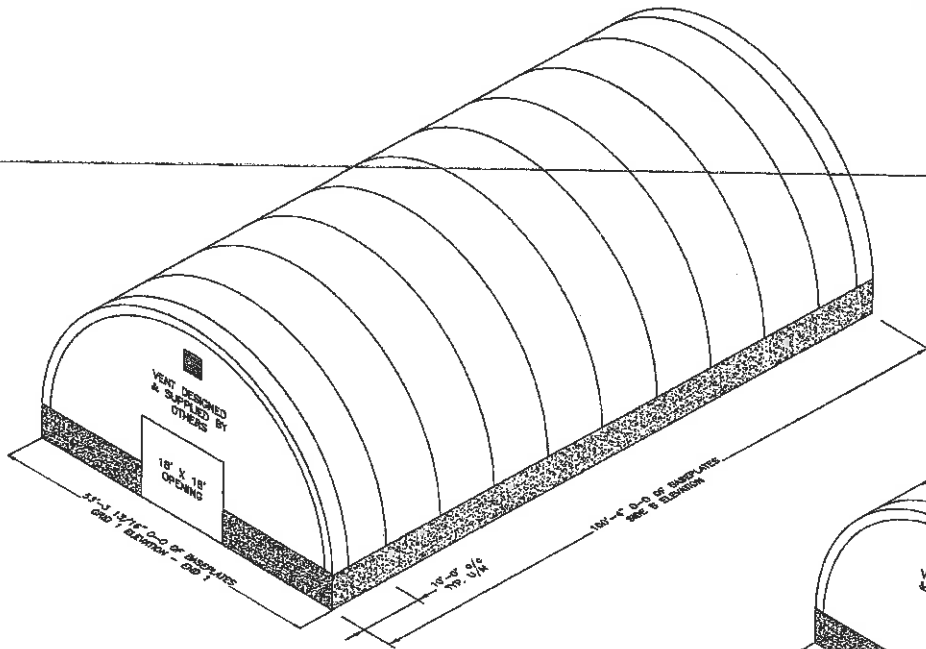
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TF
CHECKED BY:
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PROJECT:
ATLAS 18
55' x 100' - 320 GM
10' O.C.

ORDER ID:
SO# 5651-02
WIDTH-STEEL-FAB-HSS-HSSDROP:
55-320-220-18-//

DRAWING TITLE:
BASEPLATE DETAILS
SHEET NO.:
BD-1
PAGE NO.:
003/12





MAIN COVER: SANDSTONE NON-FR
 ENDFLAPS: GREEN NON-FR
 ENDWALL(S): SANDSTONE NON-FR

FOUNDATION DESIGNED & SUPPLIED BY OTHERS



37551 Amberley Road
 Lucknow, ON, Canada
 N0G 2H0
 PH: 1-519-528-2922
 FAX: 1-519-528-2890

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DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 PO BOX 727
 BRIDGEPORT, WV. 26330

CUSTOMER:
 BBL CARLTON LLC
 ROUTE 2 & CR FAIRGROUND ROAD
 POINT PLEASANT, WV. 24740

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 RH

PROJECT:
 ATLAS 18
 55' x 100' - 320 GM
 10' O.C.

ORDER ID:
 SO# 5651-02
 WIDTH-STEEL-FAB-HSS-HSSDRD P:
 55-320-220-18-//

DRAWING TITLE:
 PROJECT LAYOUT

SHEET NO.: FB-3
 PAGE NO.: 004/12

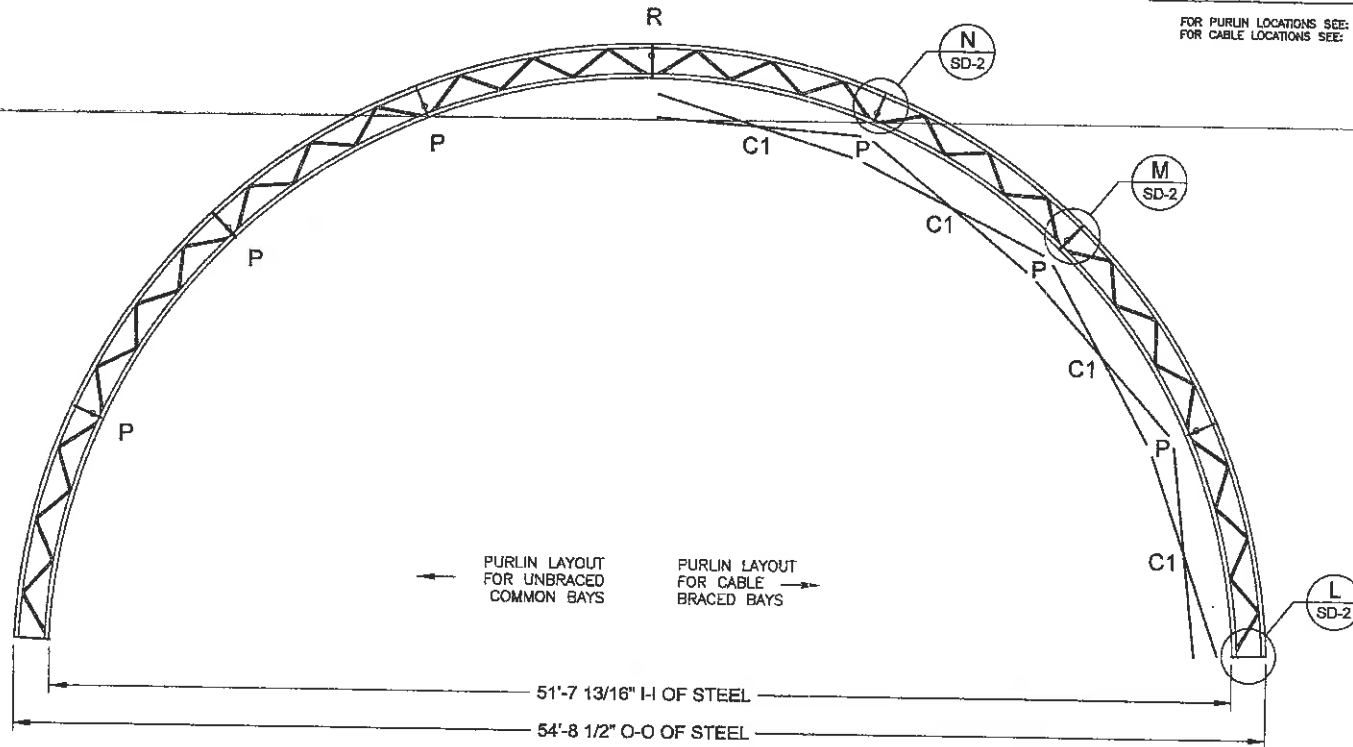


ZERO TO ZERO = 84'-11 1/8"

ATLAS 18 - 50'w

| PART# | QTY. | TRUSS & PART # |
|----------------|------|----------------------|
| INTERIOR TRUSS | | |
| 108 | 4 | 50'/55' COMMON TRUSS |
| END TRUSS | | |
| 108 | 4 | 60'/55' END TRUSS |

FOR PURLIN LOCATIONS SEE: SD-1
FOR CABLE LOCATIONS SEE: SD-2



| 10'-0" BAY | | BRACING LEGEND | |
|----------------|----------|----------------|---|
| ATLAS 18 - 50' | ITEM #1 | LENGTH | |
| C1 CABLE | 861173-9 | 173" | P = PURLIN R = RIDGE PURLIN X = CROSS CABLE |



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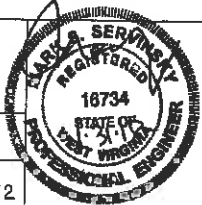
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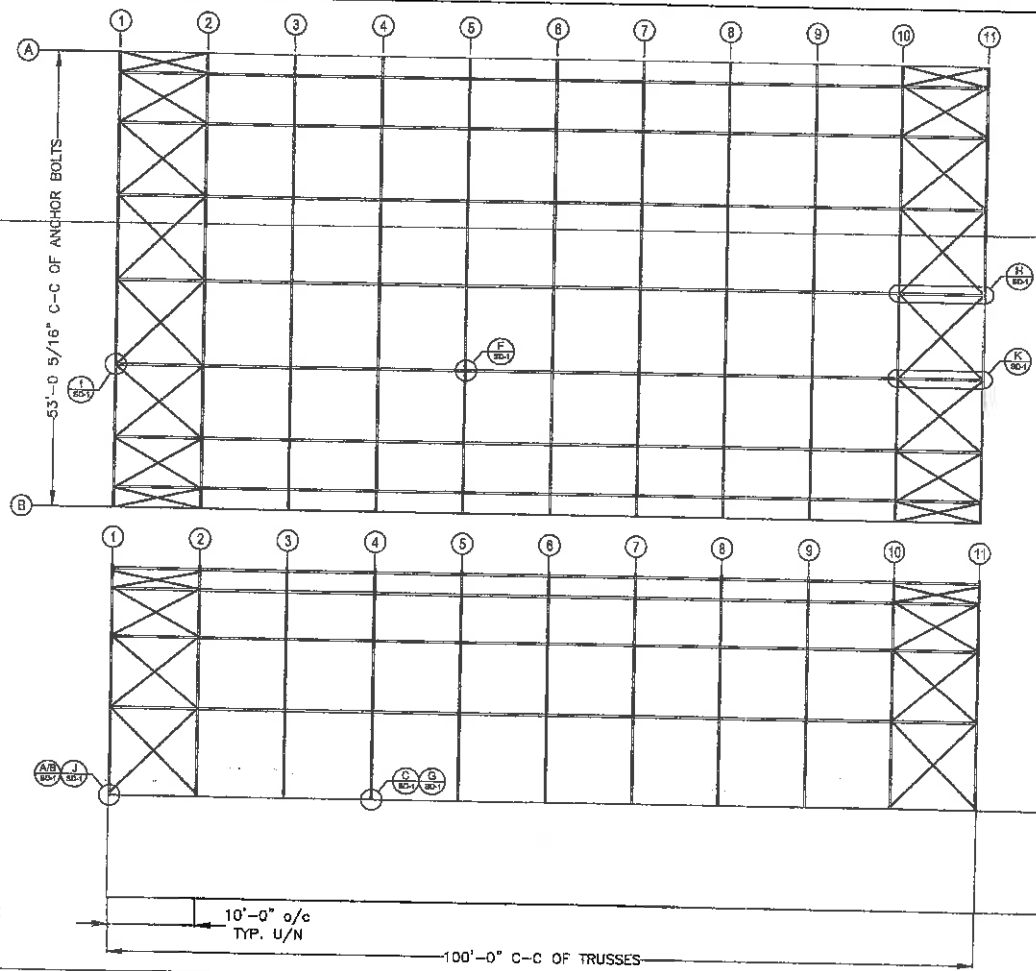
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10' O.C.

ORDER ID:
SO# 5651-02
WIDTH-STEEL-FAB-HSS-HSSRO P:
55-320-220-18-//

DRAWING TITLE:
PURLIN & X-CABLE LAYOUT
SHEET NO.:
FB-4
PAGE NO.:
005/12





PLAN VIEW

FOR PURLIN DETAILS SEE:
SD-1
FOR CABLE DETAILS SEE:
SD-2

NOTE: THIS BUILDING USES ALL
2 7/8" 14ga. FURLINS

ELEVATION

BUILDING BASEPLATES
ELEV. 100'-0"

FOUNDATION BASE
ELEV. 88'-0"

FOUNDATION DESIGNED &
SUPPLIED BY OTHERS



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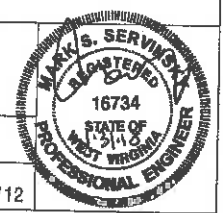
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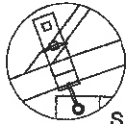
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POINT PLEASANT, WV. 24740

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ATLAS 18
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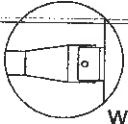
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SO# 5651-02
WIDTH-STEEL-FAB-HSS-HSSDROP:
55-320-220-18-//

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SHEET NO.:
FB-5
PAGE NO.:
006/12

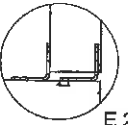




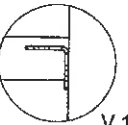
S 161



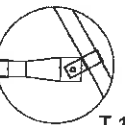
W 195



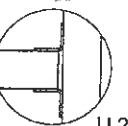
E 2407



V 194



T 184

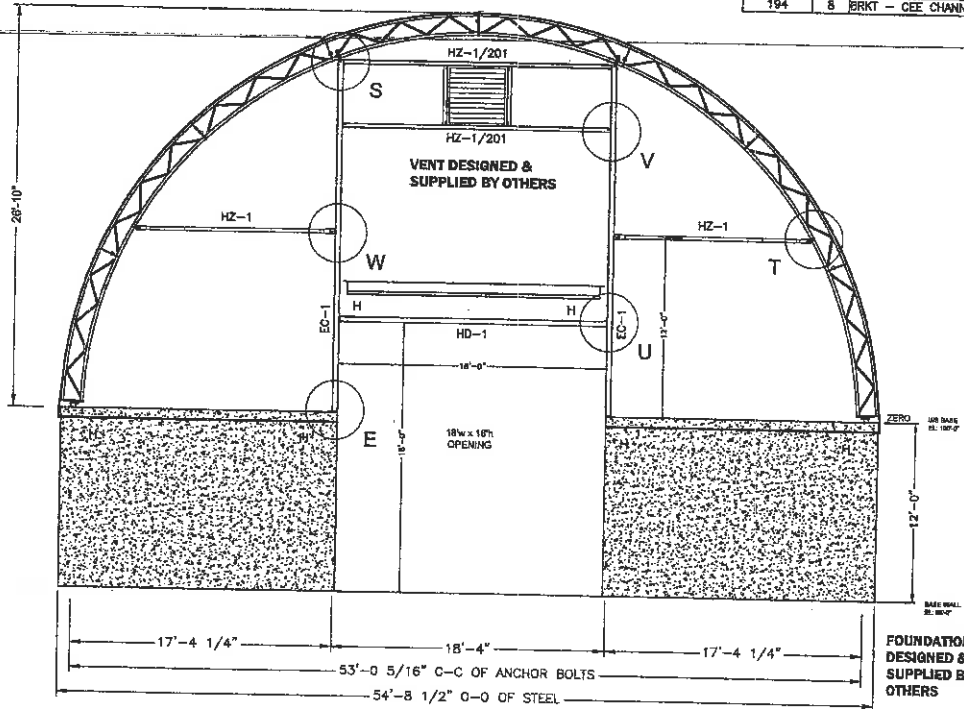


U 2407

NOTES:

1. "H" DENOTES BLOCK WINCH & STRAP FOR FASTENING TUBE
2. EC VERTICAL LOCATION DIMENSIONS ARE TO THE CENTRELINE OF MEMBERS
3. FIELD DRILL HSS AS REQUIRED
4. FIELD CUT CEE CHANNEL AS REQUIRED

| MARK # | QTY. | COMPONENTS (in) |
|----------|------|--|
| EC-1 | 2 | 2408- HSS- VERTICAL- 4" X 6" X 3/16"- 3" CENTRES- 282" |
| 161 | 2 | BRKT- 8" DEEP HSS TOP SADDLE- 2-3/8" CHORD |
| 2407 | 8 | HEADER/ BASE ANGLE- 4" X 6" HSS - 3" CENTRES |
| HD-1 | 1 | 2400- HSS- HEADER- 4" X 6" X 3/16"- 3" CENTRES- 215" |
| HZ-1 | 2 | 1528-39 (2 1/2 - 14GA) + 1528-146 (2 7/8" 14 GA) |
| 195 | 2 | BRKT - ESS HORIZ. ANGLE |
| 184 | 2 | BRKT - HORIZ. SADDLE WITH TAB - 2 3/8" CHORD |
| HZ-1/201 | 2 | 1538-240- CEE CHANNEL 8" - 14 ga. - 240"/6069mm |
| 194 | 8 | BRKT - CEE CHANNEL ANGLE |



GRIDLINE 1 - END 1

BRITESPAN
BUILDING SYSTEMS INC

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DEALER:
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PO BOX 727
BRIDGEPORT, WV. 26330

CUSTOMER:
BBL CARLTON LLC
ROUTE 2 & CR FAIRGROUND ROAD
POINT PLEASANT, WV. 24740

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CHECKED BY:
RH

PROJECT:
ATLAS 18
55' x 100' - 320 GM
10' O.C.

ORDER ID:
SO# 5651-02
WIDTH-STEEL-FAB+HSS+DRORP:
55-320-220-18-//

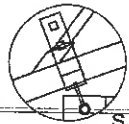
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ENDWALL 1 LAYOUT
SHEET NO.:
EW-1
PAGE NO.:
007/12



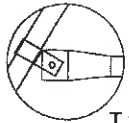
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3. FIELD DRILL HSS AS REQUIRED
4. FIELD CUT CEE CHANNEL AS REQUIRED

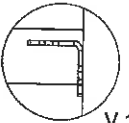
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| 2407 | 4 | HEADER/ BASE ANGLE - 4" X 6" HSS - 3" CENTRES |
| HZ-1 | 2 | 1529-39 (2 1/2 - 14GA) + 1529-146 (2 7/8" 14 GA) |
| HZ-2 | 1 | 1529-39 (2 1/2 - 14GA) + 1529-104 (2 7/8" 14 GA) |
| 195 | 4 | BRKT - HSS HORIZ. ANGLE |
| 184 | 2 | BRKT - HORIZ. SADDLE WITH TAB - 2 3/8" CHORD |
| HZ-1/201 | 2 | 1538-240 - CEE CHANNEL 6" - 14 ga - 240"/6069mm |
| 194 | 8 | BRKT - CEE CHANNEL ANGLE |



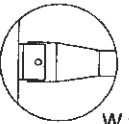
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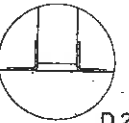
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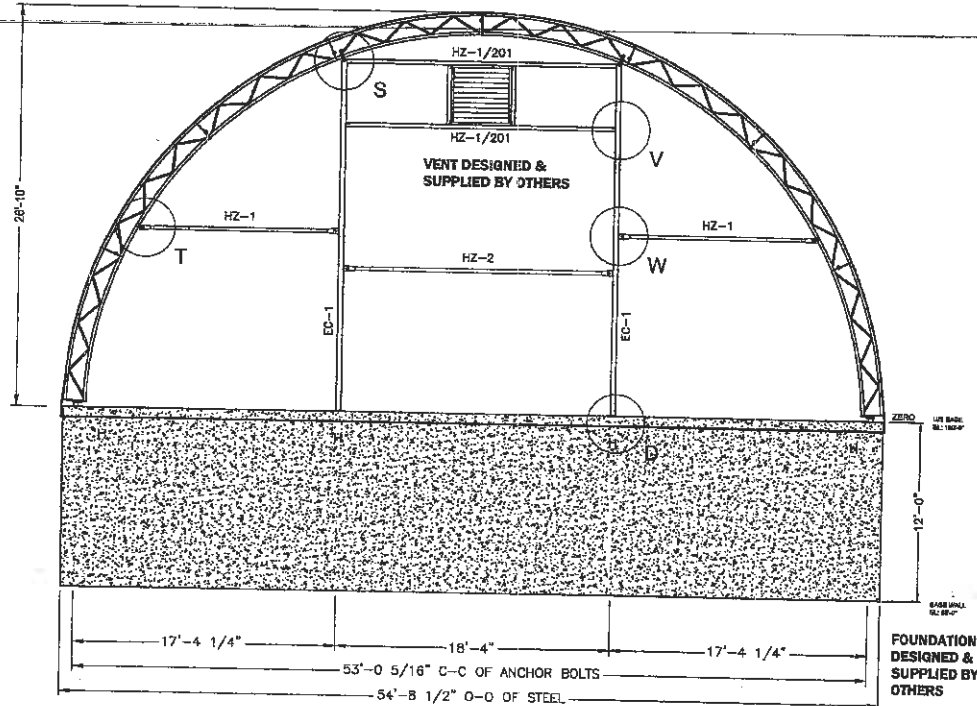
V 194



W 195



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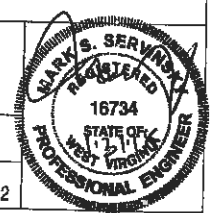
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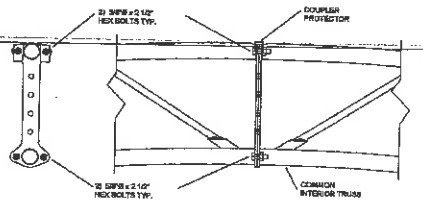
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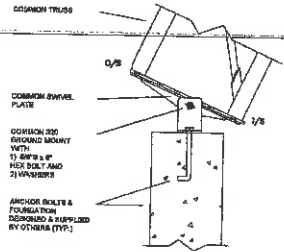
ORDER ID:
 SO# 5651-02
 WIDTH STEEL-FAB-HSS-HSSDROP:
 55-320-220-18-//

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 ENDWALL 2 LAYOUT
 SHEET NO.:
 EW-2
 PAGE NO.:
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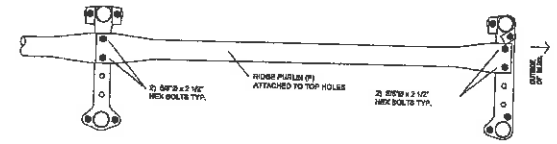




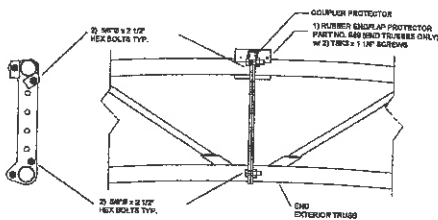
F COMMON TRUSS CONNECTION DETAIL
SD-1



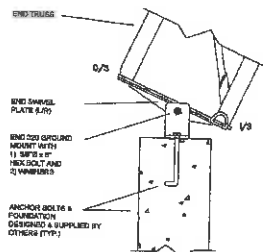
G 320 COMM. GROUND MOUNT CONNECTION DETAIL
SD-1



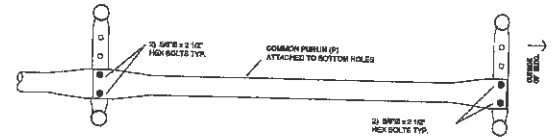
H RIDGE PURLIN CONNECTION DETAIL
SD-1



I END TRUSS CONNECTION DETAIL
SD-1



J 320 END GROUND MOUNT CONNECTION DETAIL
SD-1



K COMMON PURLIN w/KING PIN CONNECTION DETAIL
SD-1



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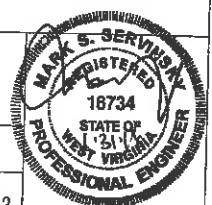
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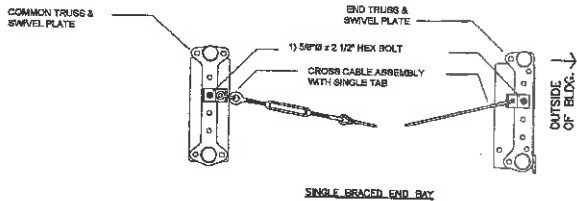
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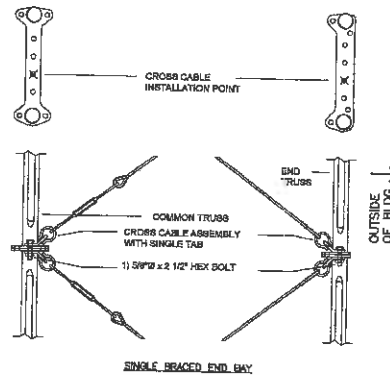
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SO# 5651-02
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55-320-220-18-//

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SHEET NO.:
SD-1
PAGE NO.:
009/12

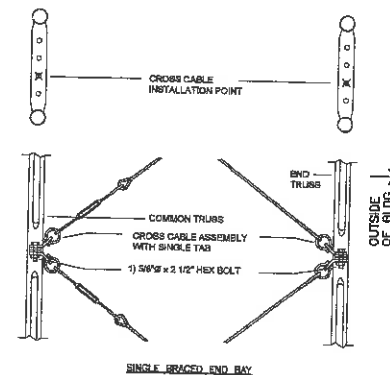




L
SD-2 CROSS CABLES AT SWIVEL PLATE CONNECTION DETAILS



M
SD-2 CROSS CABLES AT DOGBONE CONNECTION DETAILS



N
SD-2 CROSS CABLES AT KINGPIN CONNECTION DETAILS



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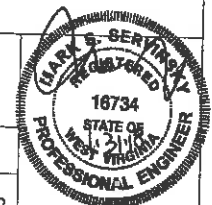
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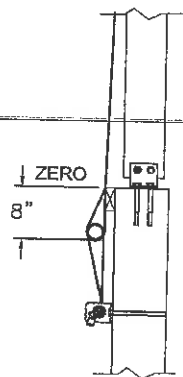
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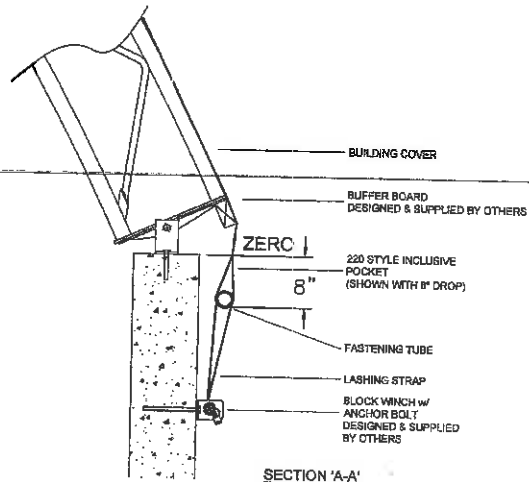
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WIDTH-STEEL-FAB+ISS+HSGOROP:
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SD-2
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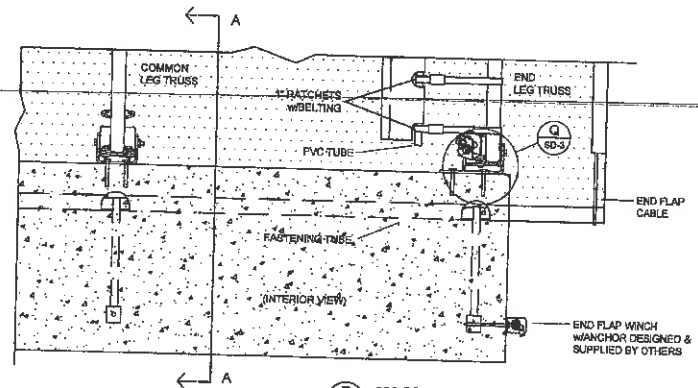




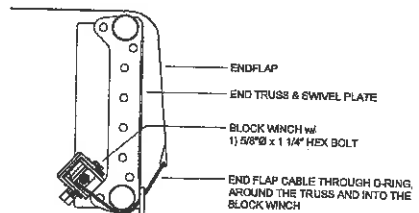
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ENDWALL TERMINATION CONNECTION DETAIL



SECTION A-A

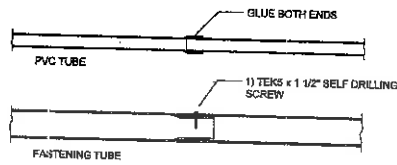


P SD-3
220 STANDARD COVER CONNECTION DETAIL



NOTE:
ENDFLAP WINCH CAN ALSO BE
INSTALLED ON FRONT FACE
OF FOUNDN AS SHOWN IN
P / SD-3.

Q SD-3
END FLAP CABLE & WINCH CONNECTION DETAIL



R SD-3
PVC / FASTENING TUBE CONNECTION DETAILS



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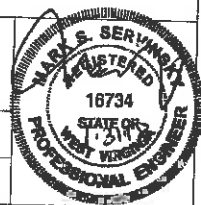
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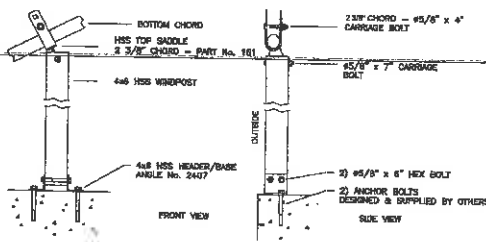
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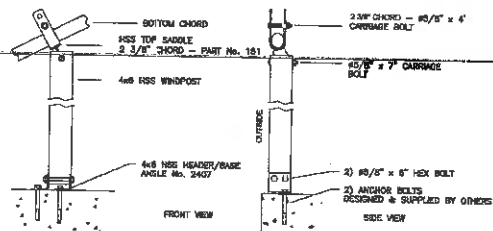
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WIDTH-STEEL-FAB-HSS-HSSDRP:
55-320-220-18-//

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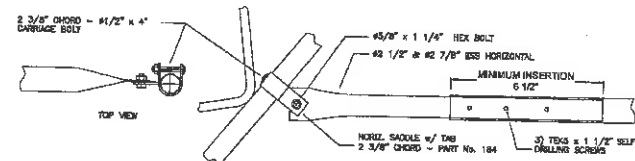




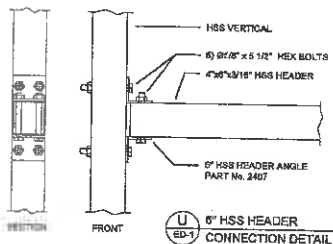
D **S**
6x4 HSS WINDPOST
CONNECTION DETAILS



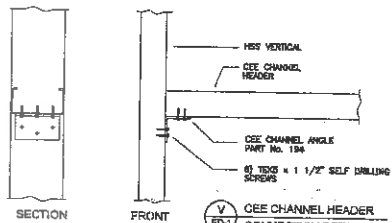
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6x4 HSS WINDPOST
CONNECTION DETAILS



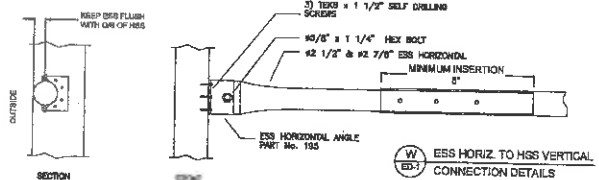
T
HSS HORIZONTAL TO TRUSS
CONNECTION DETAIL



U
6\"/>



V
CEE CHANNEL HEADER
CONNECTION DETAIL



W
HSS HORIZ. TO HSS VERTICAL
CONNECTION DETAILS



37651 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-519-526-2822
FAX: 1-519-526-2890

| REV. | DESCRIPTION | DATE |
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| 1 | ISSUED FOR REVIEW | 12/1/2018 |
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| | | |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
PO BOX 727
BRIDGEPORT, WV, 26330

CUSTOMER:
BBL CARLTON LLC
ROUTE 2 & CR FAIRGROUND ROAD
POINT PLEASANT, WV, 24740

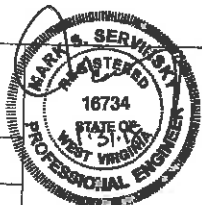
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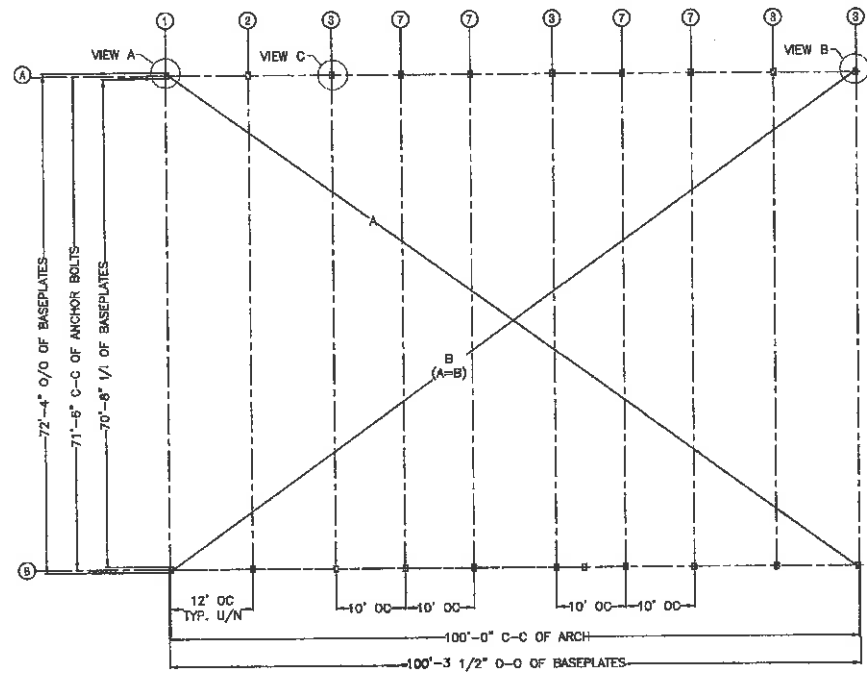
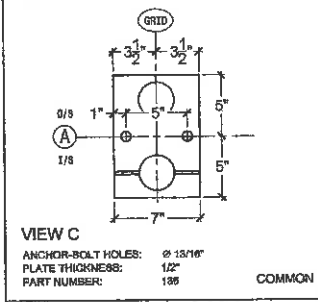
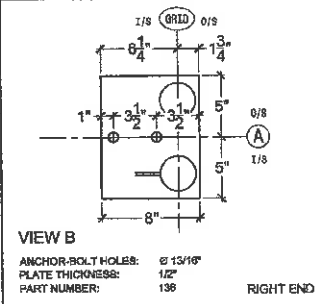
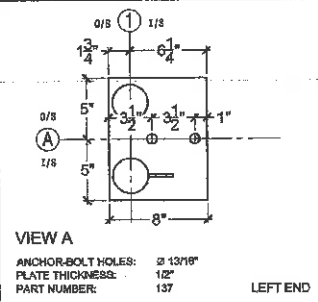
DRAWN BY:
TF
CHECKED BY:
RH

PROJECT:
ATLAS 18
55' x 100' - 320 GM
10' O.C.

ORDER ID:
SO# 5651-02
WIDTH-STEEL-FAB-HSS-HSS/DRP:
55-320-220-18-//

DRAWING TITLE:
ENDWALL DETAILS
SHEET NO.:
ED-1
PAGE NO.:
012/12





57651 Ambertley Road
 Lucanow, ON, Canada
 N0G 2H0
 PH: 1-519-628-2822
 FAX: 1-519-628-2890

| REV. | DESCRIPTION | DATE |
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| 1 | ISSUED FOR BID ONLY | 12/MAR/15 |
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DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 812 N. OHIO AVE.
 CLARKSBURG, WV 26301

CUSTOMER:
 WVDOT
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918

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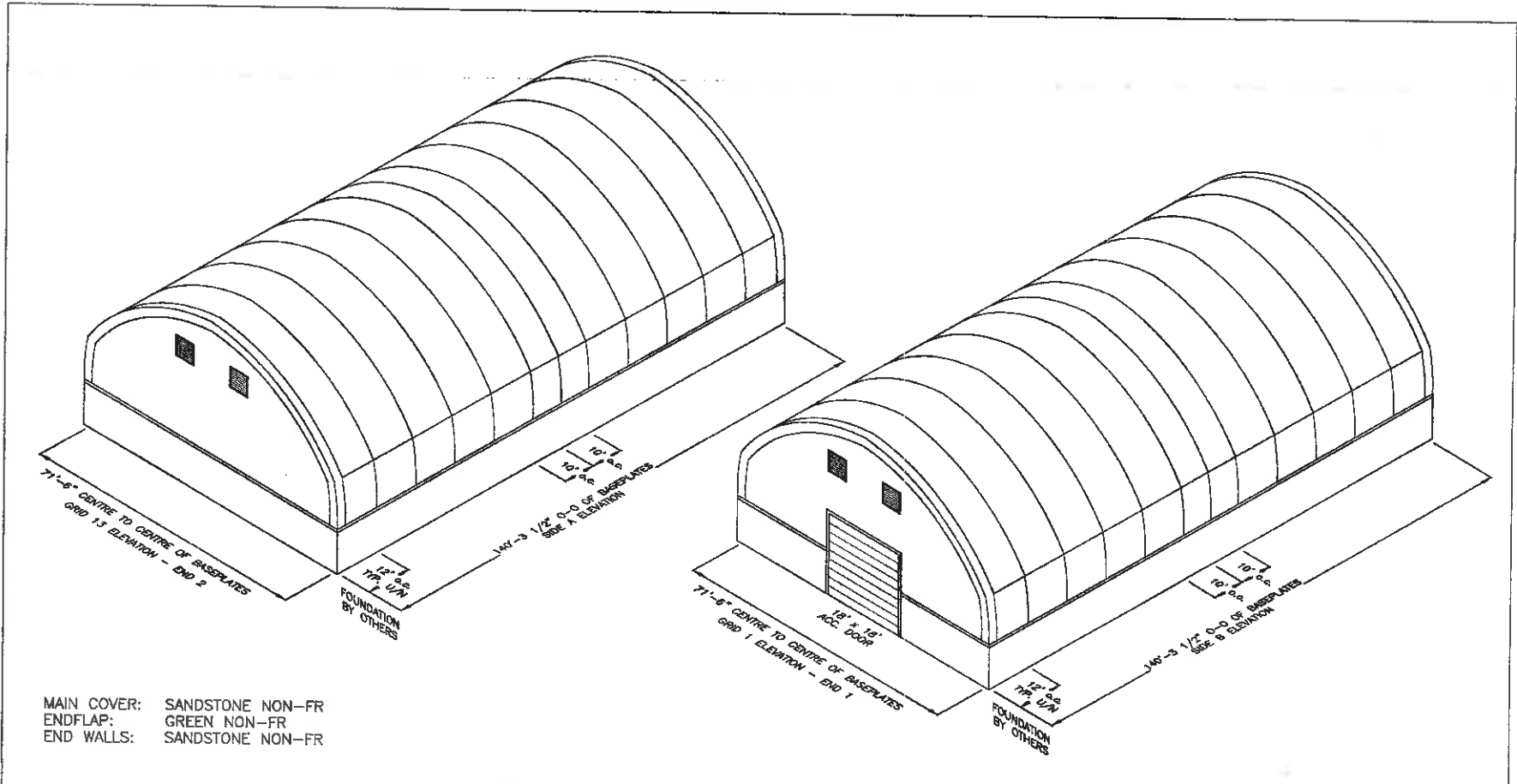
DRAWN BY:
 ML
 CHECKED BY:
 EM

PROJECT:
 ATLAS 24
 72' x 100' - 420 GM
 12' & 10' oc

ORDER ID:
 SO-5908
 WIDTH-STEEL, FAB-H88-HSSDROP:
 72-420-220-18-0

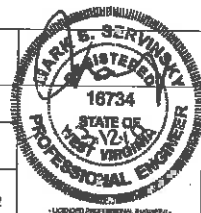
DRAWING TITLE:
 BASEPLATE LAYOUT
 SHEET NO.:
 FB-2
 PAGE NO.:
 002 / 12





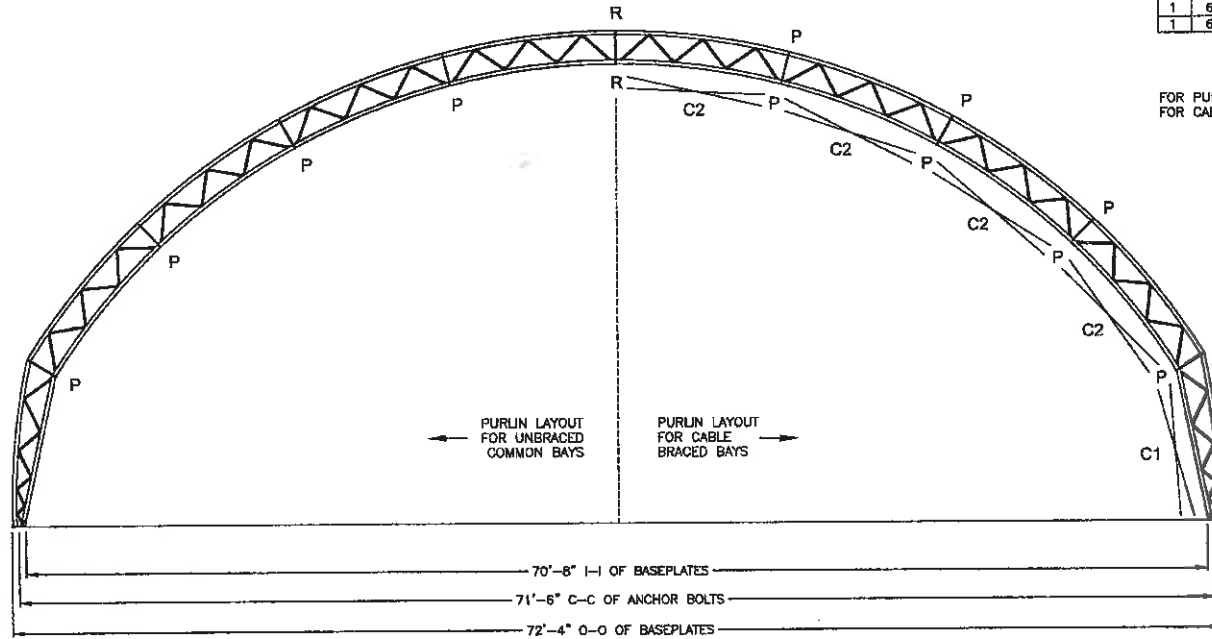
MAIN COVER: SANDSTONE NON-FR
 ENDFLAP: GREEN NON-FR
 END WALLS: SANDSTONE NON-FR

| | | | | | | | |
|---|--|------|---------------------|-----------|--|---|----------------|
| | 37651 Amberley Road Lucknow, ON, Canada N0G 2H0 PH: 1-519-528-2822 FAX: 1-519-528-2890 | REV: | DESCRIPTION: | DATE: | DEALER: | CUSTOMER: | |
| | | 1 | ISSUED FOR BID ONLY | 12.MAR.16 | COVER-ALL BUILDINGS OF WEST VIRGINIA 842 N. OHIO AVE. CLARKSBURG, WV.26301 | WVDOH 200 SAMAITAN DRIVE SHADY SPRINGS, WV. 25918 | |
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| | | | | | ATLAS 24 72' x 100' - 420 GM 12' & 10' oc | SO-5908 | PROJECT LAYOUT |
| | | | | | WIDTH-STEEL-FAB+HSS+HSSDROP: 72-420-220-18-0 | SHEET NO.: | PAGE NO.: |
| | | | | | | FB-3 | 003 / 12 |



ATLAS24 - 72'w

| Qty. | TRUSS & PART No. |
|----------------|--|
| INTERIOR TRUSS | |
| 4 | 65' / 70' / 72' / 82' COMMON TRUSS - 130 |
| 2 | 85' / 72' COMMON LEG - 135 |
| END TRUSS | |
| 4 | 65' / 70' / 72' / 82' END TRUSS - 132 |
| 1 | 65' / 72' RIGHT END LEG - 136 |
| 1 | 65' / 72' LEFT END LEG - 137 |



FOR PURLIN LOCATIONS SEE: SD-1 pg. 008
FOR CABLE LOCATIONS SEE SD-2 pg. 009

| A-24 72' | 16' BAY | | 14' BAY | | 12' BAY | | 10' BAY | | 8' BAY | | 6' BAY | | 5' BAY | |
|----------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|
| | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH |
| C1 CABLE | 861225-9 | 225" | 861205-9 | 205" | 861188-9 | 188" | 861167-9 | 167" | 861151-9 | 151" | 861136-9 | 136" | 861131-9 | 131" |
| C2 CABLE | 861230-9 | 230" | 861210-9 | 210" | 861192-9 | 192" | 861174-9 | 174" | 861157-9 | 157" | 861145-9 | 145" | 861140-9 | 140" |
| C3 CABLE | | | | | | | | | | | | | | |

| BRACING LEGEND | |
|----------------|----------------|
| P | = PURLIN |
| R | = RIDGE PURLIN |
| X | = CROSS CABLE |

LENGTHS SHOWN IN INCHES - IN
LENGTHS SHOWN IN FEET - IN
LENGTHS SHOWN IN METERS - IN



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PH: 1-519-528-2922
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| 1 | | 12MAR18 |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV 26301

PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV 25918

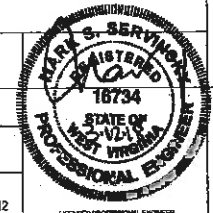
ORDER ID:
SO-5908

WIDTH-STEEL-FAB-4164-HSS-DROP:
72-420-220-18-0

DRAWING TITLE:
PURLIN & X-CABLE LAYOUT

SHEET NO.:
FB-4

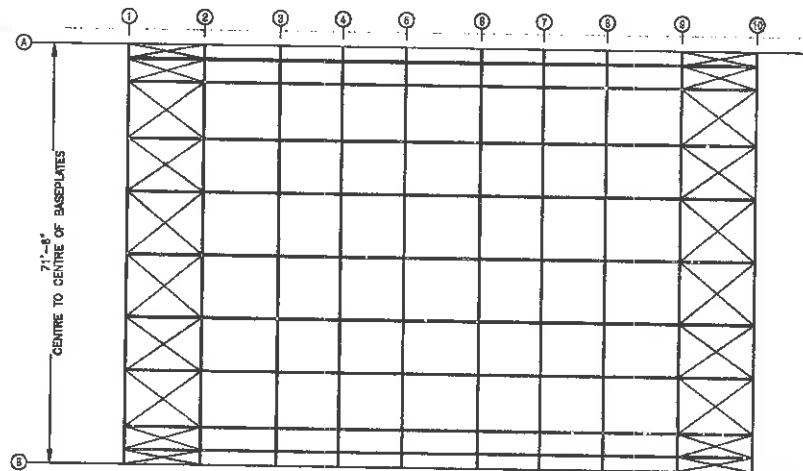
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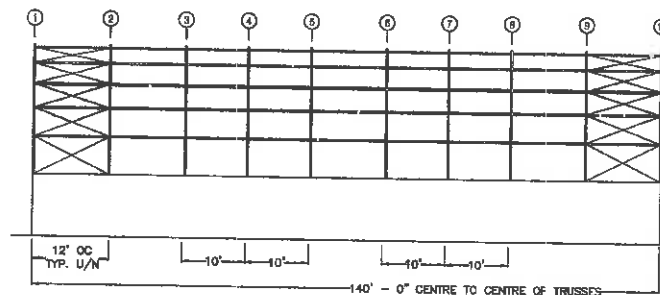


PLAN VIEW

FOR PURLIN DETAILS SEE:
SD-1 pg. 008

FOR CABLE DETAILS SEE:
SD-2 pg. 009

NOTE: THIS BUILDING USES ALL
2 7/8" 140L PURLINS



ELEVATION

BUILDING BASEPLATES
2BX. 106'-0"

12" OC
TYP. U/N

140' - 0" CENTRE TO CENTRE OF TRUSSES



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Lucknow, ON, Canada
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
842 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WYDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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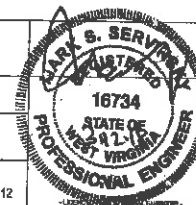
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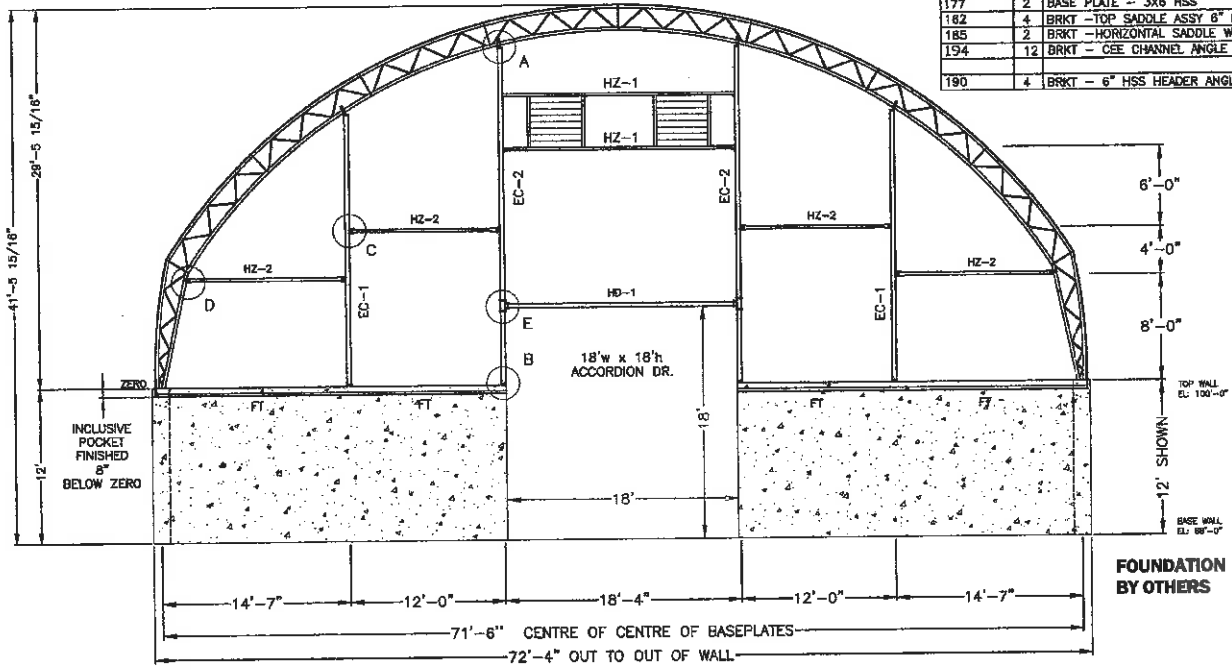
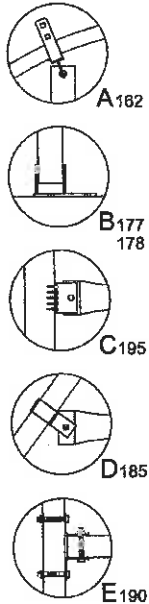
PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
SO-5908
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

DRAWING TITLE:
BRACING LAYOUT

SHEET NO.: FB-5
PAGE NO.: 005 / 12





| MARK# | QTY | COMPONENTS (in) |
|-------|-----|---|
| EC-1 | 2 | 3x6x3/16" 252" HSS VERTICAL |
| EC-2 | 2 | 4x6x1/4" 313" HSS VERTICAL |
| HZ-1 | 3 | 6" CEE CHANNEL - 20' LONG |
| HZ-2 | 4 | 32000309 (2 1/2 - 14GA) + 32000122 (2 7/8" 14 GA) |
| HD-1 | 1 | 3x6x3/16" 215" HSS HEADER |
| FT | - | 2 3/8" DIA X 14 Gc FASTENING TUBE CUT TO LENGTH |
| 195 | 6 | BRACKET - HORIZ. ANGLE |
| 178 | 2 | BASE PLATE - 4X4/8 HSS |
| 177 | 2 | BASE PLATE - 3X6 HSS |
| 182 | 4 | BRKT - TOP SADDLE ASSY 8" DEEP - 2 7/8" CHORD |
| 185 | 2 | BRKT - HORIZONTAL SADDLE WITH TAB - 2 7/8" CHORD |
| 194 | 12 | BRKT - CEE CHANNEL ANGLE |
| 190 | 4 | BRKT - 6" HSS HEADER ANGLE |



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Lucknow, ON, Canada
N0G 2H0
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| 1 | ISSUED FOR BID ONLY | 12 MAR 18 |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV 25918

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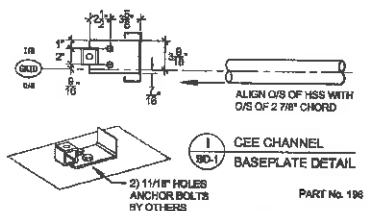
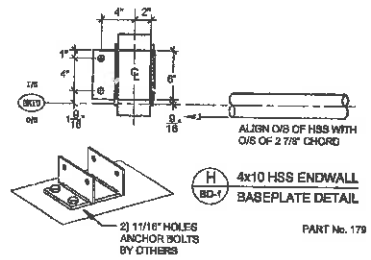
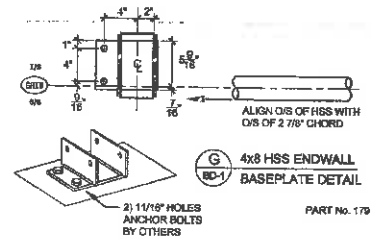
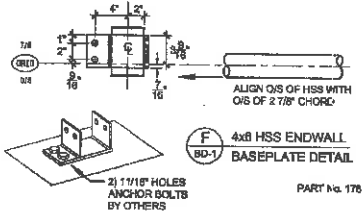
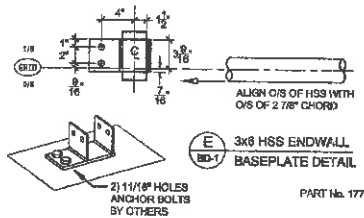
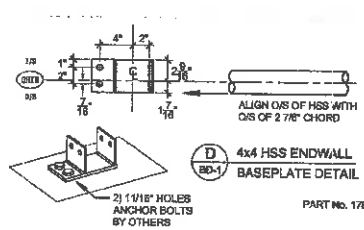
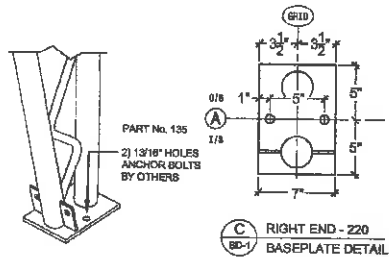
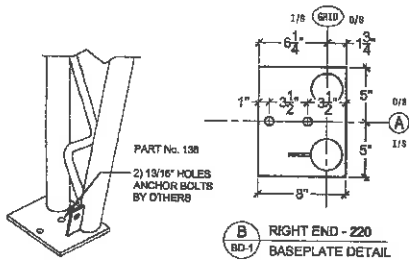
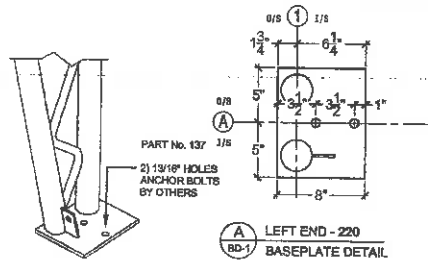
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PROJECT:
ATLAS 24
72 x 100' - 420 GM
12' & 10' oc

ORDER ID:
SO-5908
WIDTH-STEEL-FAB-HSS-HSSCORP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL LAYOUT
SHEET NO.:
EW-1
PAGE NO.:
006a / 12





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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV 26301

CUSTOMER:
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200 SAMANTAN DRIVE
SHADY SPRINGS, WV 25918

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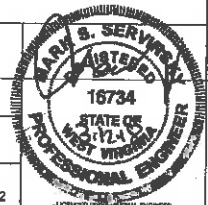
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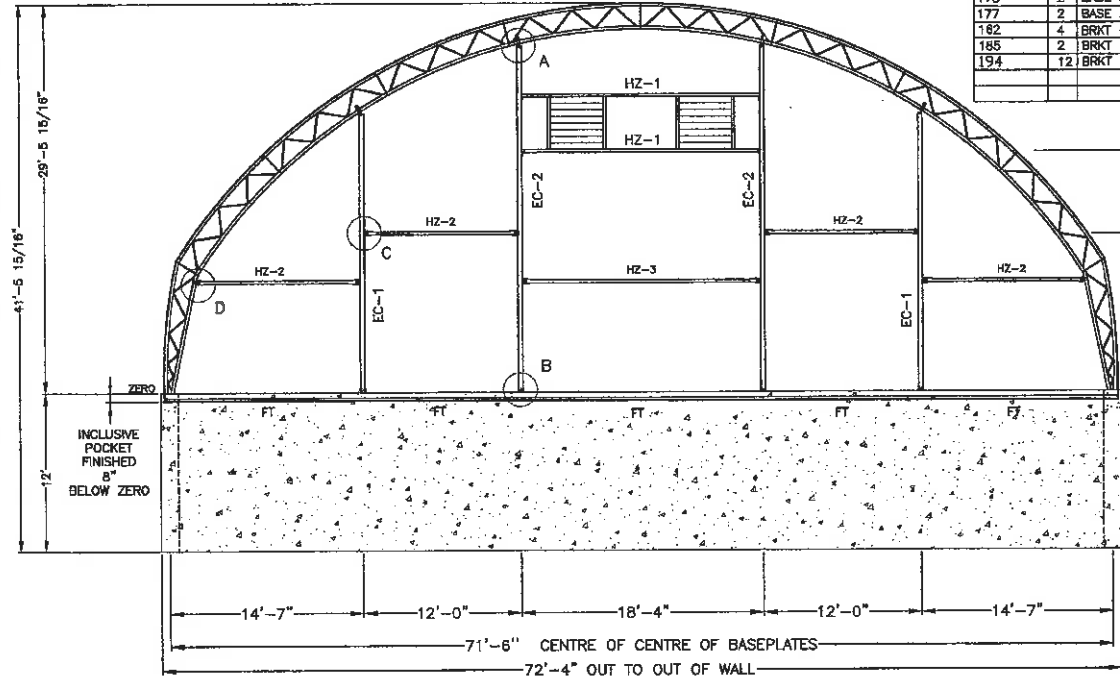
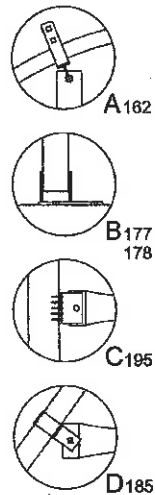
PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
SO-5908
WIDTH-STEEL-FAS-HSS-HSSDROP:
72-420-220-18-0

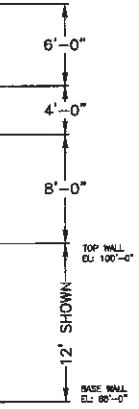
DRAWING TITLE:
BASEPLATE DETAILS

SHEET NO.:
BD-1
PAGE NO.:
007 / 12





| MARK# | QTY | COMPONENTS (in) |
|-------|-----|---|
| EC-1 | 2 | 3x6x3/16" 252" HSS VERTICAL |
| EC-2 | 2 | 4x6x1/4" 313" HSS VERTICAL |
| HZ-1 | 3 | 6" CEE CHANNEL - 20' LONG |
| HZ-2 | 4 | 32000039 (2 1/2 - 14GA) + 32000122 (2 7/8" 14 GA) |
| HZ-3 | 1 | 32000039 (2 1/2 - 14GA) + 32000194 (2 7/8" 14 GA) |
| FT | - | 2 3/8" DIA X 14 Gg FASTENING TUBE CUT TO LENGTH |
| 195 | 8 | BRACKET - HORIZ. ANGLE |
| 178 | 2 | BASE PLATE - 4X4/8 HSS |
| 177 | 2 | BASE PLATE - 3X6 HSS |
| 182 | 4 | BRKT - TOP SADDLE ASSY 6" DEEP - 2 7/8" CHORD |
| 185 | 2 | BRKT - HORIZONTAL SADDLE WITH TAB - 2 7/8" CHORD |
| 194 | 12 | BRKT - CEE CHANNEL ANGLE |



FOUNDATION BY OTHERS

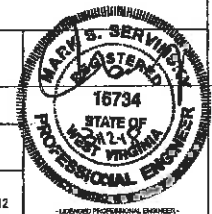


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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918



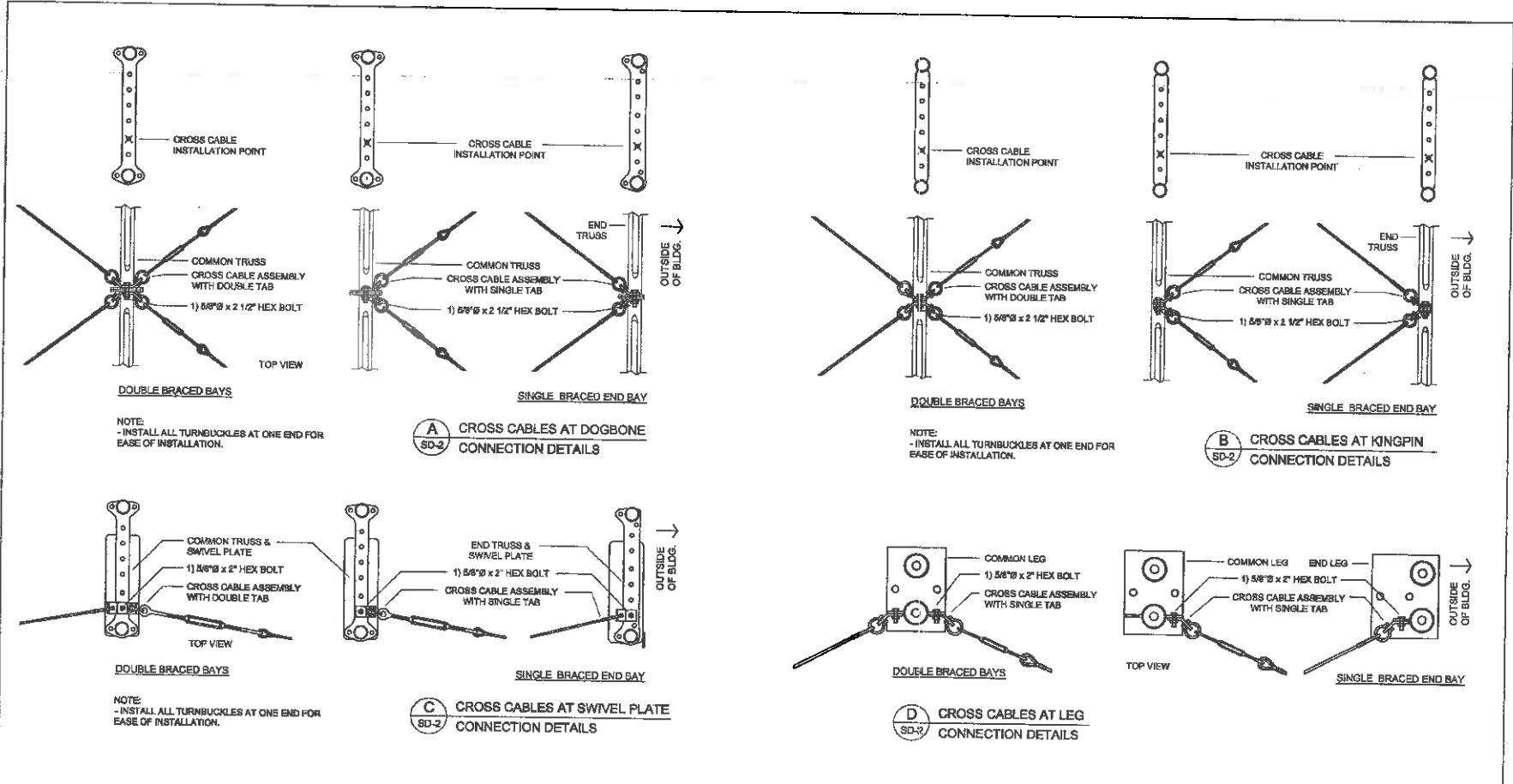
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PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
SO-5908
WIDTH-STEEL-FAB-HSS-HSSCROP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL LAYOUT
SHEET NO.:
EW-2
PAGE NO.:
006b / 12



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 Lucknow, ON, Canada
 N0G 2H0
 PH: 1-519-526-2822
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DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
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 CLARKSBURG, WV. 26301

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ORDER ID:
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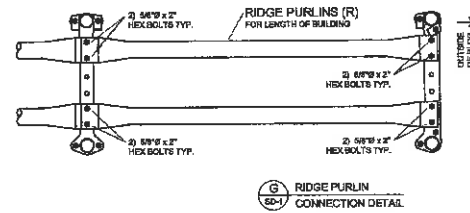
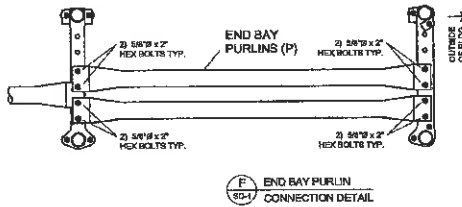
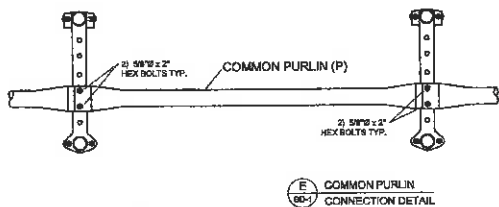
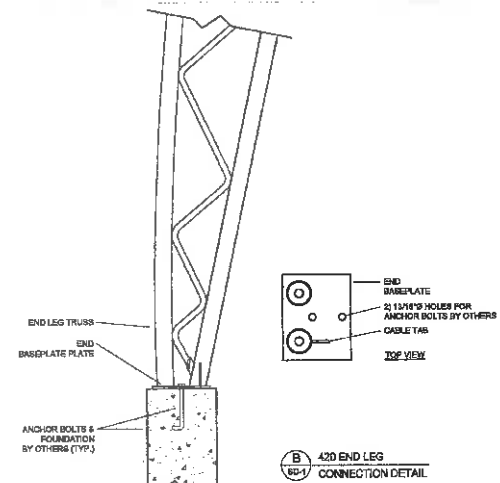
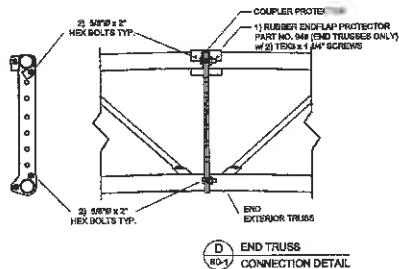
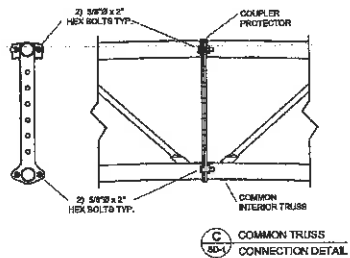
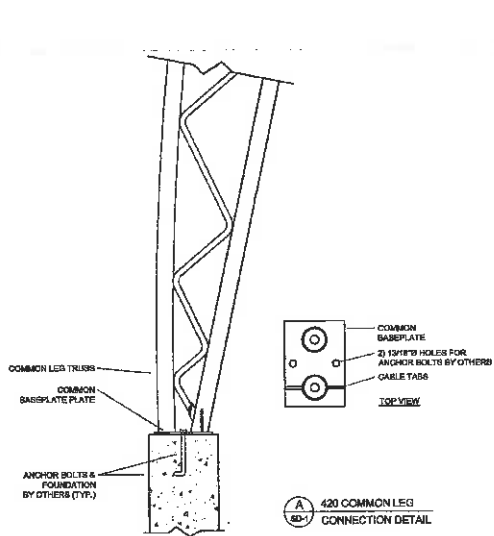
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 72-420-220-18-0

DRAWING TITLE:
 STANDARD DETAILS

SHEET NO.:
 SD-2

PAGE NO.:
 009 / 12





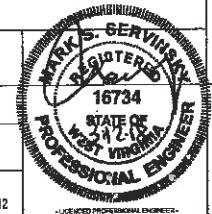
BRITESPAN
BUILDING SYSTEMS INC.

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Lucknow, ON, Canada
N0G 2H0
PH: 1-819-528-2822
FAX: 1-519-528-2890

| REV. | DESCRIPTION | DATE |
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| 1 | ISSUED FOR BID ONLY | 12MAR18 |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918



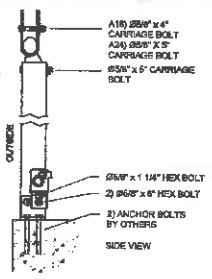
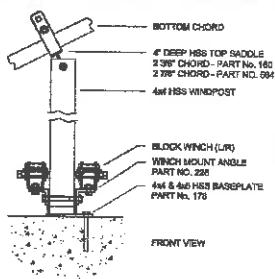
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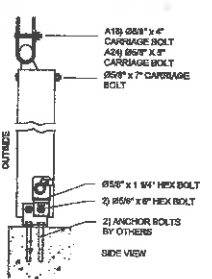
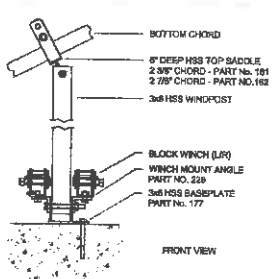
PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
SO-5908
WIDTH-STEEL-FAB+HS-HSSDROP:
72-420-220-18-0

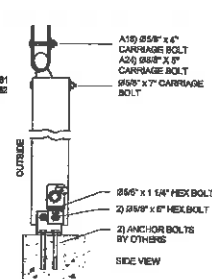
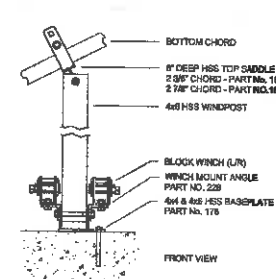
DRAWING TITLE:
STANDARD DETAILS
SHEET NO.: SD-1
PAGE NO.: 008 / 12



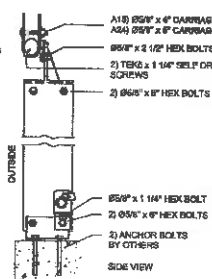
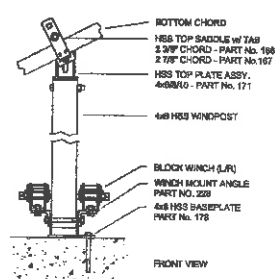
A 4x4 HSS WINDPOST CONNECTION DETAILS
ED-1



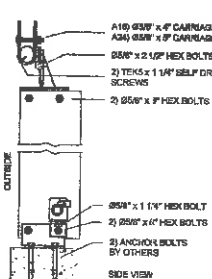
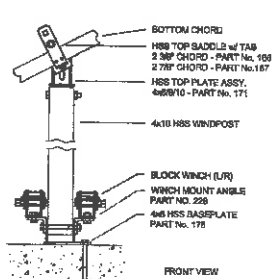
B 3x6 HSS WINDPOST CONNECTION DETAILS
ED-1



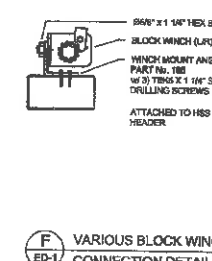
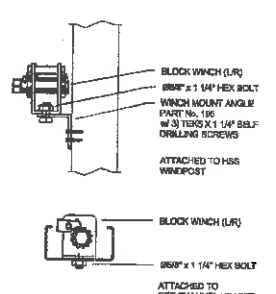
C 4x8 HSS WINDPOST CONNECTION DETAILS
ED-1



D 4x8 HSS WINDPOST CONNECTION DETAILS
ED-1



E 4x10 HSS WINDPOST CONNECTION DETAILS
ED-1



F VARIOUS BLOCK WINCH CONNECTION DETAILS
ED-1

BRITESPAN
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| REV. | DESCRIPTION | DATE |
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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
842 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
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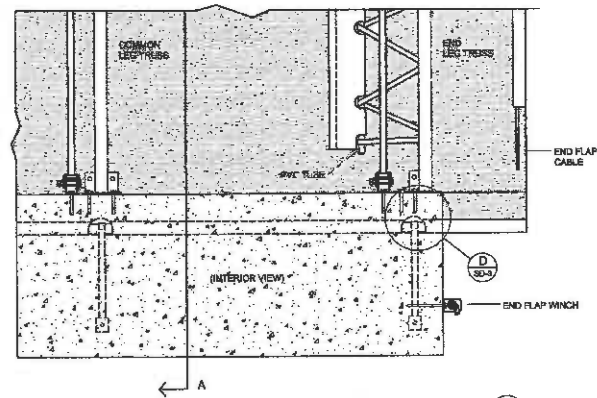
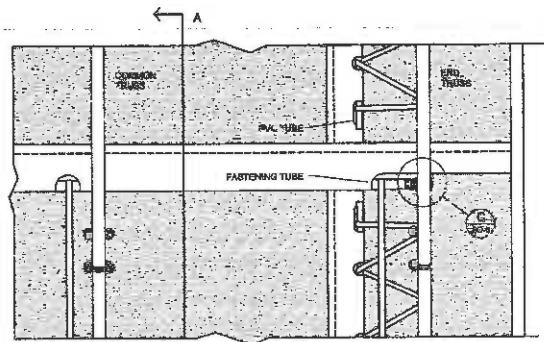
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

DRAWING TITLE:
EAVE DETAILS

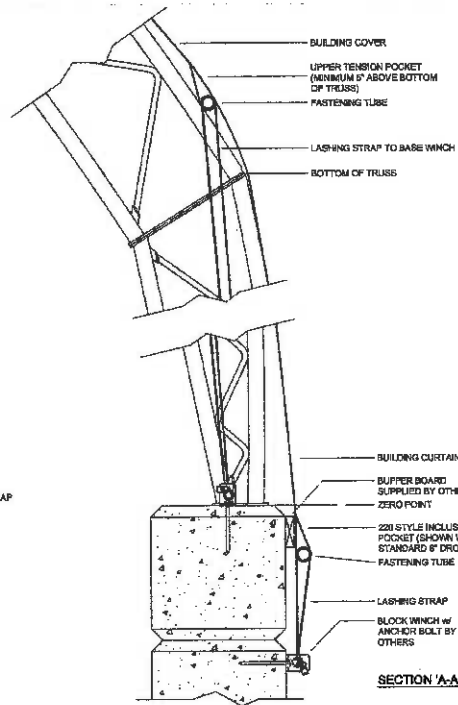
SHEET NO.:
ED-1

PAGE NO.:
011 / 12

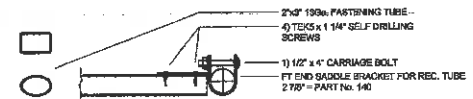




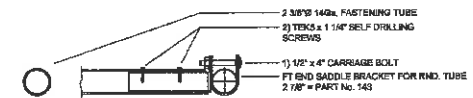
A
SD-3
220/420 STANDARD COVER
CONNECTION DETAIL



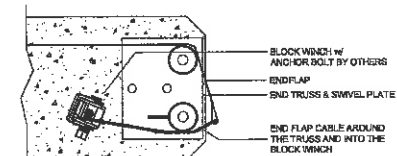
SECTION 'A-A'



C
SD-3
FASTENING TUBE SADDLE
CONNECTION DETAILS

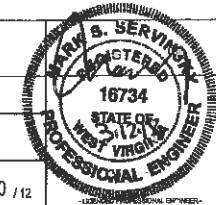
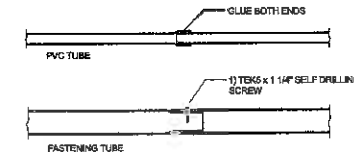


D
SD-3
END FLAP CABLE & WINCH
CONNECTION DETAIL



E
SD-3
PVC / FASTENING TUBE
CONNECTION DETAILS

NOTE:
END FLAP WINCH CAN ALSO BE
INSTALLED ON FRONT FACE
OF FOUNDN AS SHOWN IN
A / SD-3.



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CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

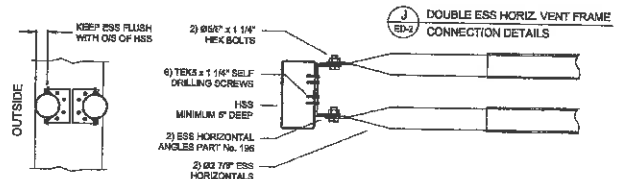
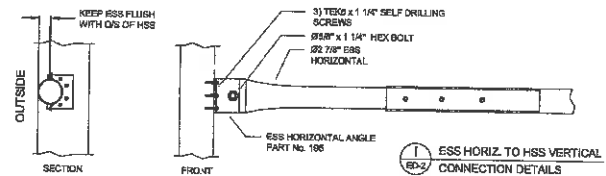
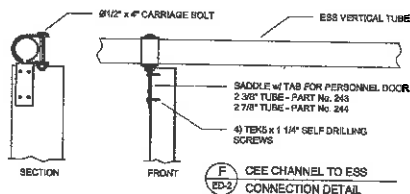
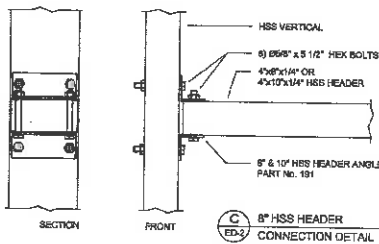
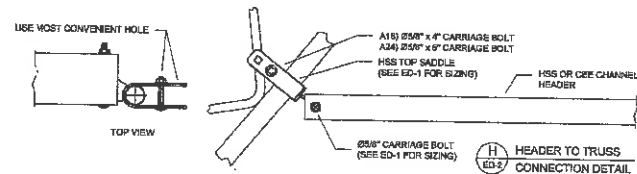
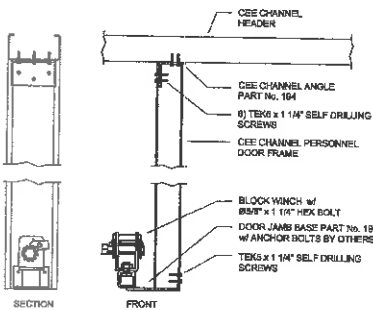
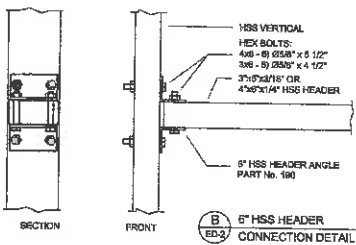
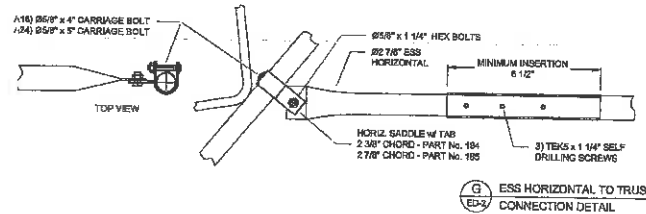
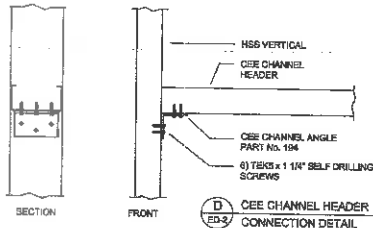
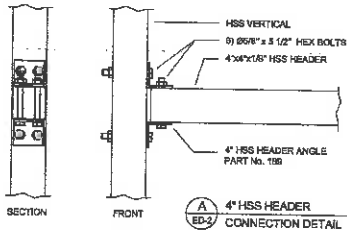
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PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' oc

ORDER ID:
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WIDTH-STEEL-FAB-HSS-HSSROP:
72-420-220-18-0

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STANDARD DETAILS
SHEET NO.:
SD-3
PAGE NO.:
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CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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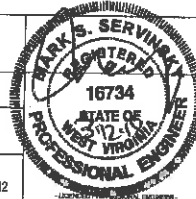
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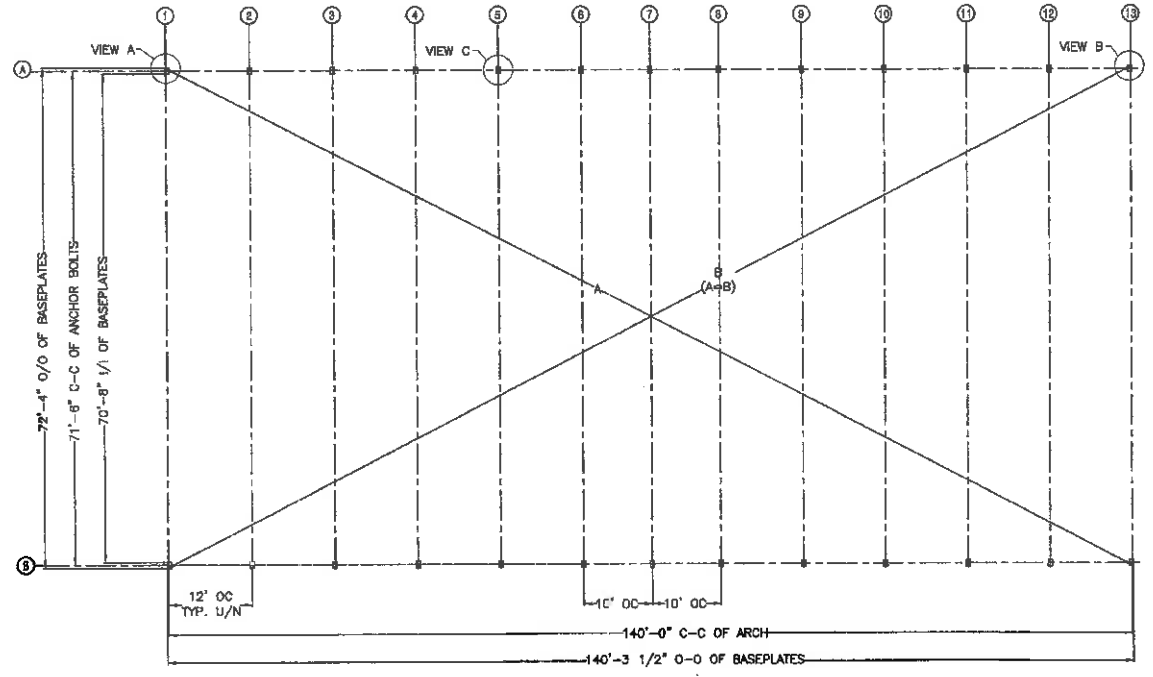
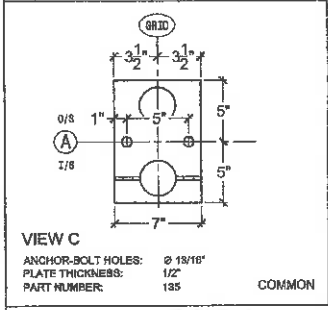
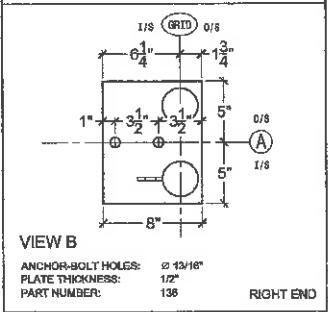
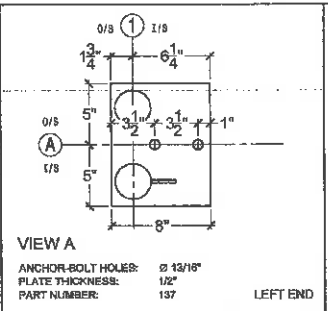
PROJECT:
ATLAS 24
72' x 100' - 420 GM
12' & 10' cc

ORDER ID:
SO-5908
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL DETAILS
SHEET NO.:
ED-2

PAGE NO.:
012 / 12





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DEALER:
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 812 N. OHIO AVE.
 CLARKSBURG, WV 26301

CUSTOMER:
 WVDOH
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV 25918

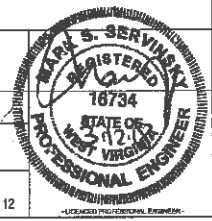
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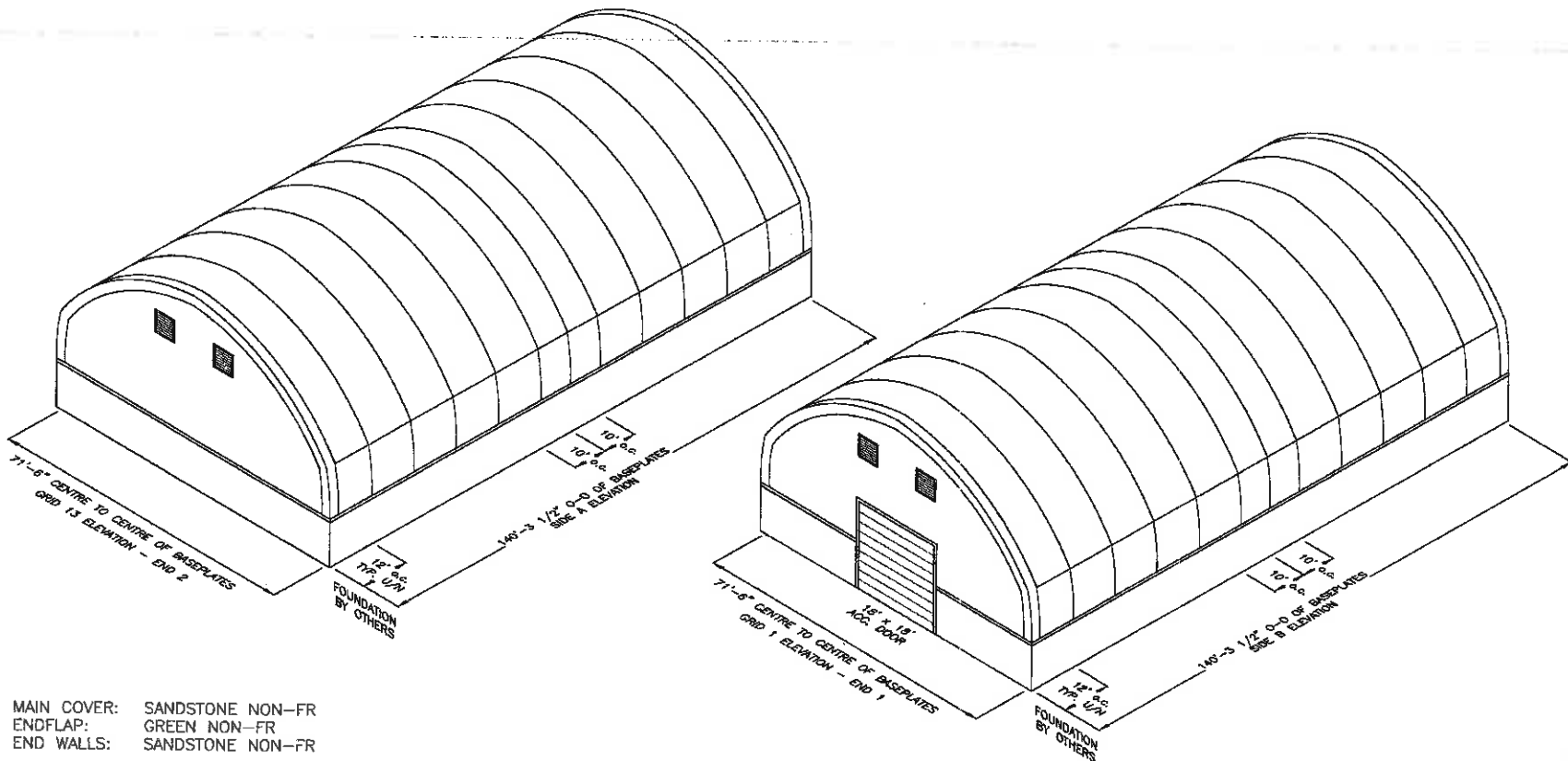
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PROJECT:
 ATLAS 24
 72' x 140' - 420 GM
 12' & 10' oc


ORDER ID:
 SO-5909
 WIDTH-STEEL-FAB-HSS-HSSDROP:
 72-420-220-18-0

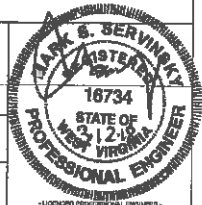
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 BASEPLATE LAYOUT
 SHEET NO.:
 FB-2
 PAGE NO.:
 002 / 12





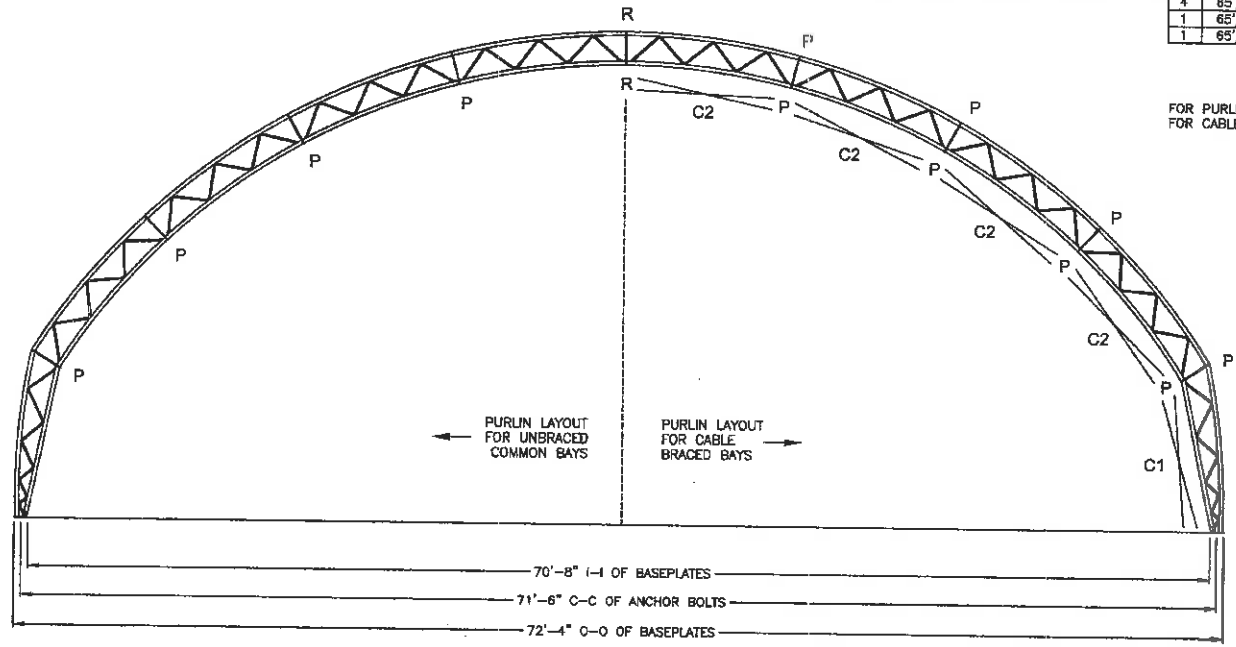
MAIN COVER: SANDSTONE NON-FR
 ENDFLAP: GREEN NON-FR
 END WALLS: SANDSTONE NON-FR

| | | | | |
|---|---|---|--|---|
|  | 37851 Amberley Road Lucknow, ON, Canada N0G 2H0 Pk: 1-819-828-2822 FAX: 1-519-828-2860 | REV: 1 DESCRIPTION: ISSUED FOR BID ONLY DATE: 12.MAR.18 | DEALER: COVER-ALL BUILDINGS OF WEST VIRGINIA 812 N. OHIO AVE. CLARKSBURG, WV. 26301 | CUSTOMER: WVDOT 200 SAMAITAN DRIVE SHADY SPRINGS, WV. 25918 |
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ATLAS24 - 72'w

| Qty. | TRUSS & PART No. |
|----------------|-----------------------------------|
| INTERIOR TRUSS | |
| 4 | 65'70'/72'/82' COMMON TRUSS - 130 |
| 2 | 65'72' COMMON LEG - 135 |
| END TRUSS | |
| 4 | 65'70'/72'/82' END TRUSS - 132 |
| 1 | 65'72' RIGHT END LEG - 136 |
| 1 | 65'72' LEFT END LEG - 137 |



FOR PURLIN LOCATIONS SEE: SD-1 pg. 008
FOR CABLE LOCATIONS SEE SD-2 pg. 009

| A-24 72' | 16' BAY | | 14' BAY | | 12' BAY | | 10' BAY | | 8' BAY | | 6' BAY | | 5' BAY | |
|----------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|
| | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH |
| C1 CABLE | 861225-9 | 225" | 861205-9 | 205" | 861188-9 | 186" | 861167-9 | 187" | 861151-9 | 151" | 861136-9 | 136" | 861131-9 | 131" |
| C2 CABLE | 861230-9 | 230" | 861210-9 | 210" | 861192-9 | 192" | 861174-9 | 174" | 861157-9 | 157" | 861145-9 | 145" | 861140-9 | 140" |
| C3 CABLE | | | | | | | | | | | | | | |

| BRACING LEGEND | |
|----------------|----------------|
| P | = PURLIN |
| R | = RIDGE PURLIN |
| X | = CROSS CABLE |

LENGTH DIMENSIONS SHOWN IN INCHES UNLESS OTHERWISE NOTED
LENGTH DIMENSIONS SHOWN IN FEET UNLESS OTHERWISE NOTED

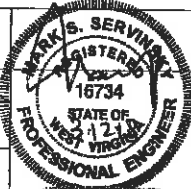


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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918



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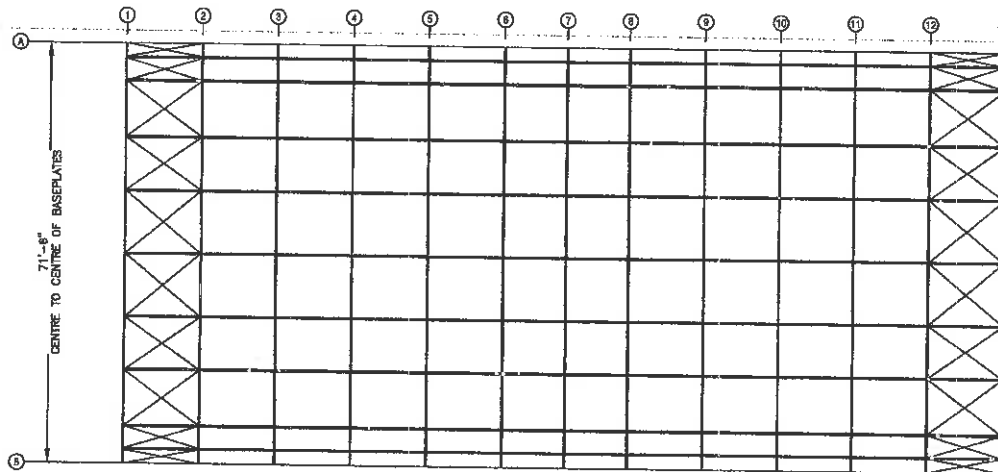
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| PROJECT: | ORDER ID: | DRAWING TITLE: |
|---|---|--|
| ATLAS 24 72' x 140' - 420 GM 12' & 10' oc | SO-5909 WIDTH-STEEL-FAB-RIS-SSDROD: 72-420-220-18-0 | PURLIN & X-CABLE LAYOUT SHEET NO.: FB-4 PAGE NO.: 004 / 12 |

PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-RIS-SSDROD:
72-420-220-18-0

DRAWING TITLE:
PURLIN & X-CABLE LAYOUT
SHEET NO.: FB-4
PAGE NO.: 004 / 12

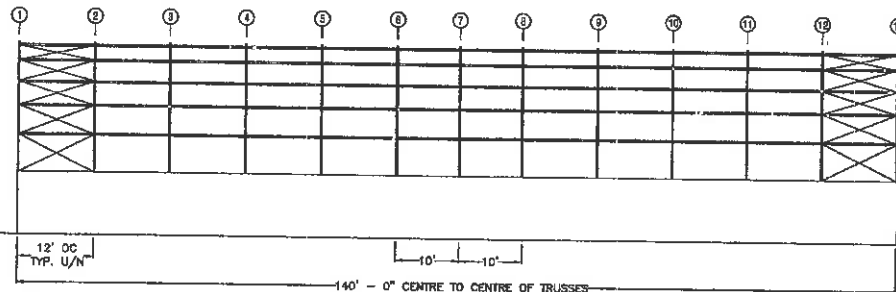


PLAN VIEW

FOR FURLIN DETAILS SEE:
SD-1 pg. 008

FOR CABLE DETAILS SEE:
SD-2 pg. 008

NOTE: THIS BUILDING USES ALL
2 7/8" 140# FURLINS



ELEVATION

BUILDING BASEPLATES
ELEV. 100'-0"

12' OC
TYP. U/M

140' - 0" CENTRE TO CENTRE OF TRUSSES



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WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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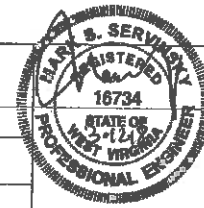
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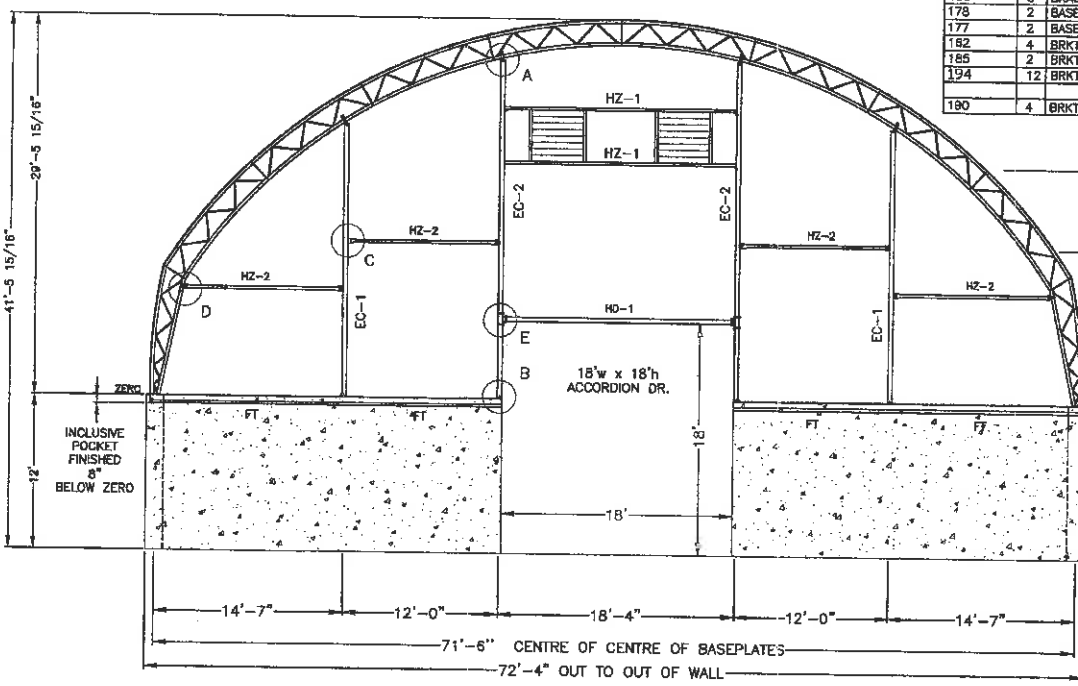
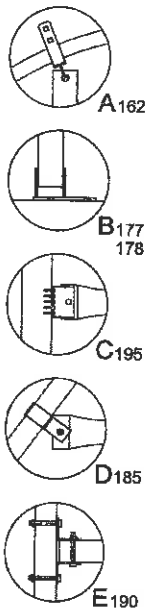
PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

DRAWING TITLE:
BRACING LAYOUT

SHEET NO.:
FB-5
PAGE NO.:
005 / 12





| MARK# | QTY | COMPONENTS (in) |
|-------|-----|--|
| EC-1 | 2 | 3x8x3/16" 292" HSS VERTICAL |
| EC-2 | 2 | 4x8x1/4" 313" HSS VERTICAL |
| HZ-1 | 3 | 6" CEE CHANNEL - 20' LONG |
| HZ-2 | 4 | 32000039 (2 1/2" - 14GA) + 32000122 (2 7/8" 14 GA) |
| HD-1 | 1 | 3x8x3/16" 215" HSS HEADER |
| FT | - | 2 3/8" DIA X 14' OC FASTENING TUBE CUT TO LENGTH |
| 195 | 8 | BRACKET - HORIZ. ANGLE |
| 178 | 2 | BASE PLATE - 4x4/8 HSS |
| 177 | 2 | BASE PLATE - 3x6 HSS |
| 182 | 4 | BRKT - TOP SADDLE ASSY 8" DEEP - 2 7/8" CHORD |
| 185 | 2 | BRKT - HORIZONTAL SADDLE WITH TAB - 2 7/8" CHORD |
| 194 | 12 | BRKT - CEE CHANNEL ANGLE |
| 190 | 4 | BRKT - 6" HSS HEADER ANGLE |

6'-0"
4'-0"
8'-0"
TOP WALL
EL. 100'-0"
12' SHOWN
BASE WALL
EL. 98'-0"
FOUNDATION
BY OTHERS



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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918



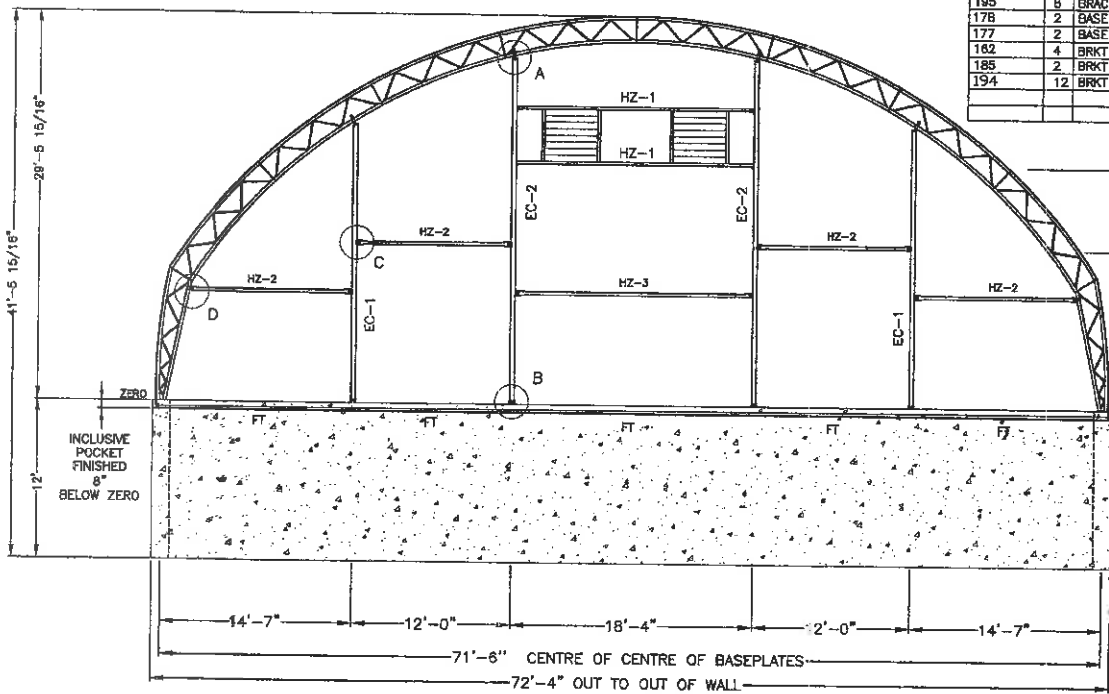
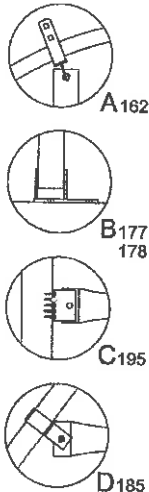
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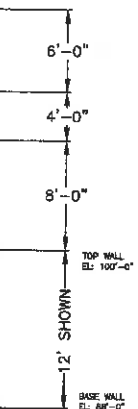
PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSDRCP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL LAYOUT
SHEET NO.:
EW-1
PAGE NO.:
006a / 12



| MARK | QTY | COMPONENTS (in) |
|------|-----|---|
| EC-1 | 2 | 3x8x3/16" 252" HSS VERTICAL |
| EC-2 | 2 | 4x6x1/4" 313" HSS VERTICAL |
| HZ-1 | 3 | 6" CEE CHANNEL - 20' LONG |
| HZ-2 | 4 | 32000039 (2 1/2" - 14GA) + 32000122 (2 7/8" 14 GA) |
| HZ-3 | 1 | 32000039 (2 1/2" - 14GA) + 32000194 (2 7/8" 14 GA) |
| FT | - | 2 3/8" DIA X 1 1/2" Gc FASTENING TUBE CUT TO LENGTH |
| 195 | 6 | BRACKET - HORIZ ANGLE |
| 178 | 2 | BASE PLATE - 4X4/6 HSS |
| 177 | 2 | BASE PLATE - 3X6 HSS |
| 182 | 4 | BRKT -TOP SADDLE ASSY 6" DEEP - 2 7/8" CHORD |
| 185 | 2 | BRKT -HORIZONTAL SADDLE WITH TAB - 2 7/8" CHORD |
| 194 | 12 | BRKT - CEE CHANNEL ANGLE |



FOUNDATION BY OTHERS



37851 Amberley Road
Lucknow, ON, Canada
N0G 2H0
PH: 1-819-828-2822
FAX: 1-519-528-2890

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COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

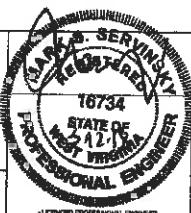
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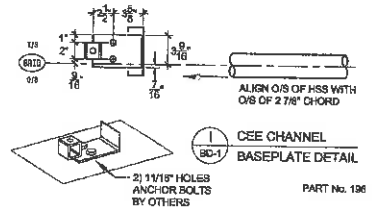
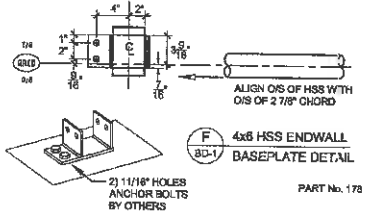
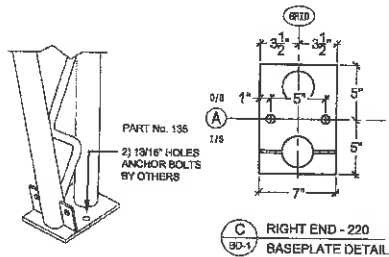
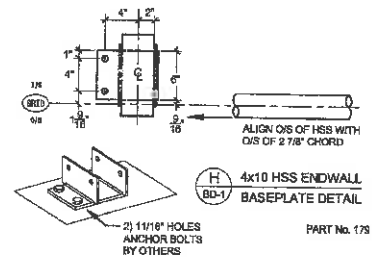
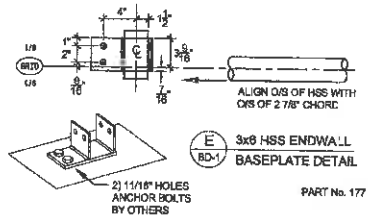
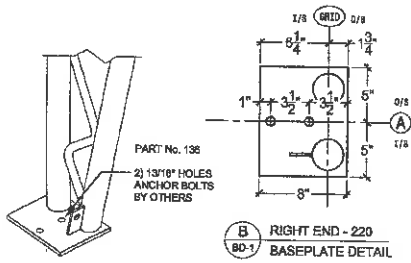
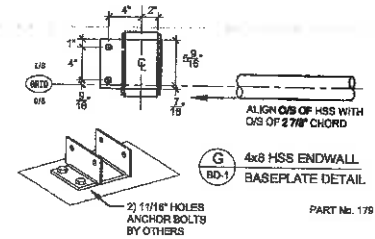
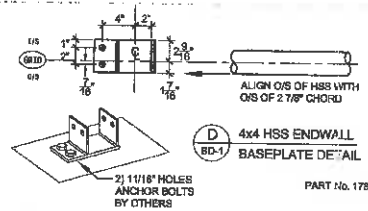
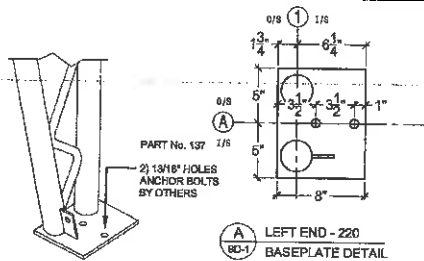
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PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSDRCP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL LAYOUT
SHEET NO.:
EW-2
PAGE NO.:
006b / 12





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COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
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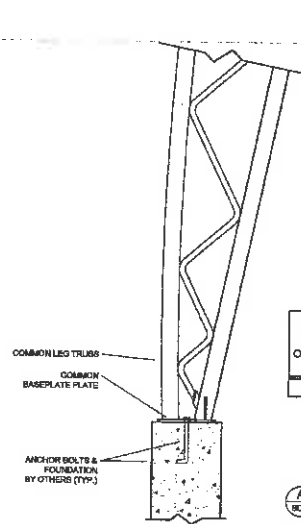
PROJECT:
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12' & 10' cc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

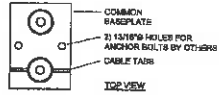
DRAWING TITLE:
BASEPLATE DETAILS
SHEET NO.:
BD-1

PAGE NO.:
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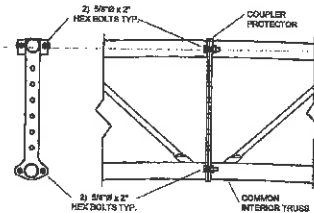




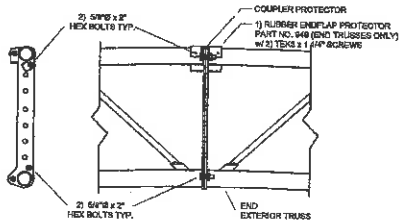
(A) 420 COMMON LEG CONNECTION DETAIL
SD-1



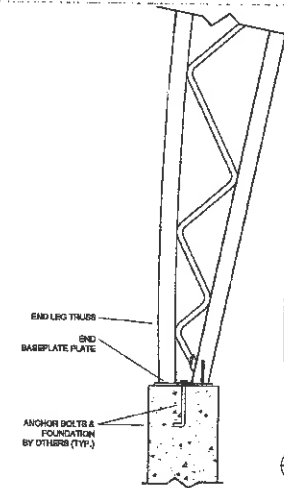
TOP VIEW



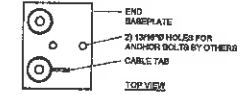
(C) COMMON TRUSS CONNECTION DETAIL
SD-1



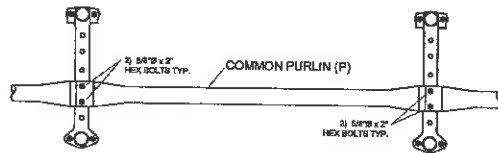
(D) END TRUSS CONNECTION DETAIL
SD-1



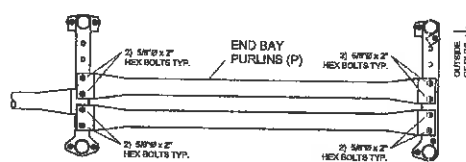
(B) 420 END LEG CONNECTION DETAIL
SD-1



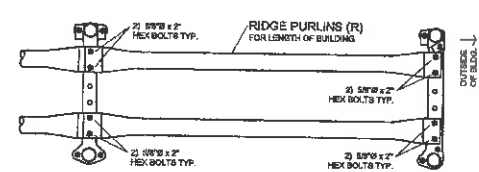
TOP VIEW



(E) COMMON PURLIN CONNECTION DETAIL
SD-1



(F) END BAY PURLIN CONNECTION DETAIL
SD-1



(G) RIDGE PURLIN CONNECTION DETAIL
SD-1



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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
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200.SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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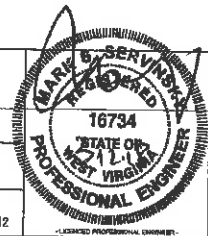
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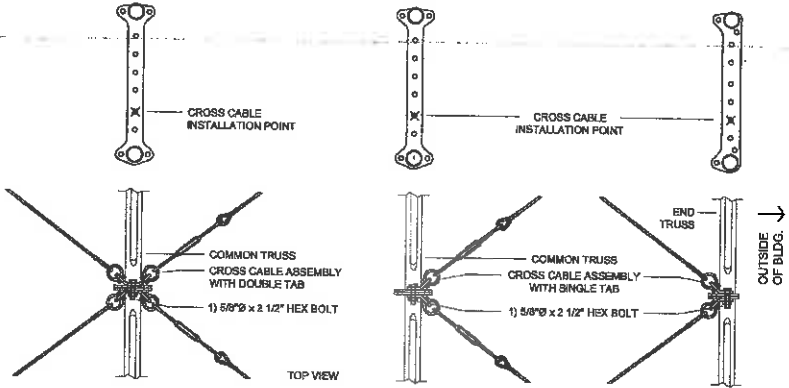
PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSDROP:
72-420-220-18-0

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SHEET NO.: SD-1
PAGE NO.: 008 / 12



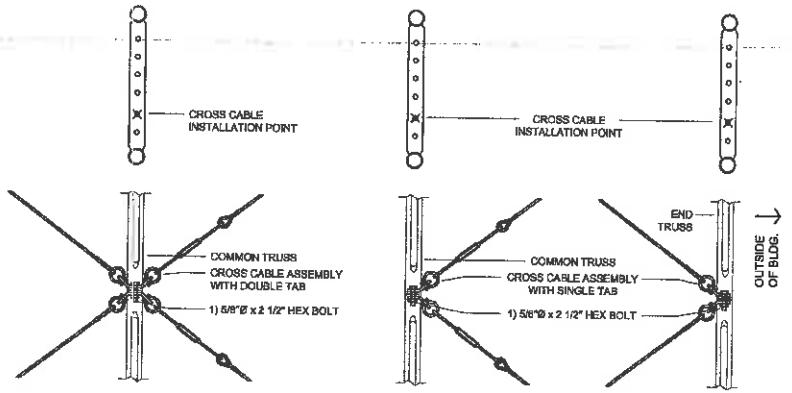


DOUBLE BRACED BAYS

SINGLE BRACED END BAY

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.

A CROSS CABLES AT DOGBONE CONNECTION DETAILS
SD-2

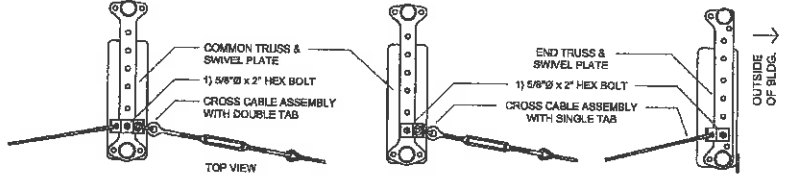


DOUBLE BRACED BAYS

SINGLE BRACED END BAY

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.

B CROSS CABLES AT KINGPIN CONNECTION DETAILS
SD-2

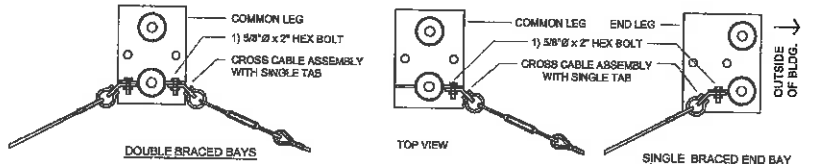


DOUBLE BRACED BAYS

SINGLE BRACED END BAY

NOTE:
- INSTALL ALL TURNBUCKLES AT ONE END FOR EASE OF INSTALLATION.

C CROSS CABLES AT SWIVEL PLATE CONNECTION DETAILS
SD-2



DOUBLE BRACED BAYS

SINGLE BRACED END BAY

D CROSS CABLES AT LEG CONNECTION DETAILS
SD-2



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812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

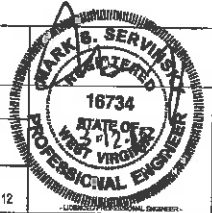
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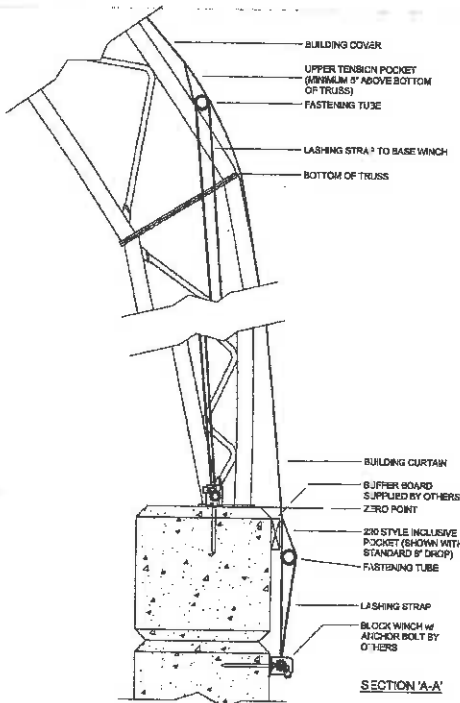
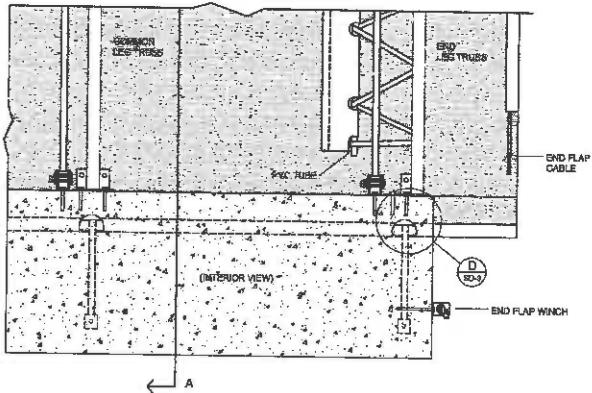
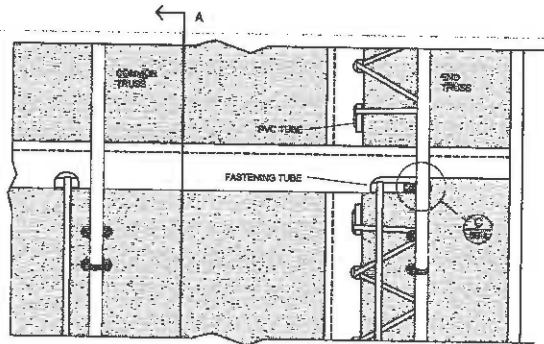
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PROJECT:
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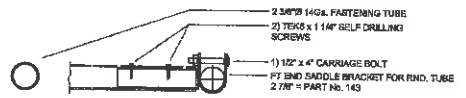
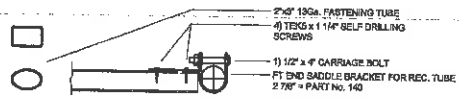
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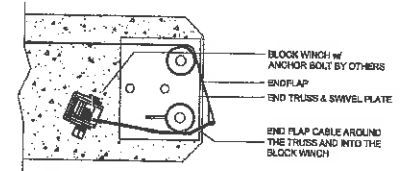




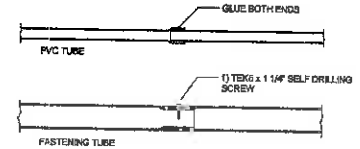
A 220/420 STANDARD COVER CONNECTION DETAIL



C FASTENING TUBE SADDLE CONNECTION DETAILS



D END FLAP CABLE & WINCH CONNECTION DETAIL



E PVC / FASTENING TUBE CONNECTION DETAILS



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 812 N. OHIO AVE.
 CLARKSBURG, WV.26301

CUSTOMER:
 WVD0H
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918

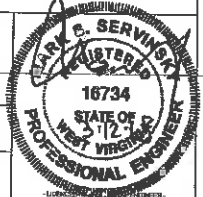
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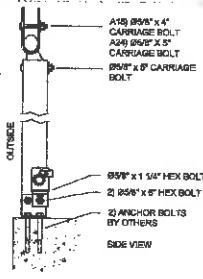
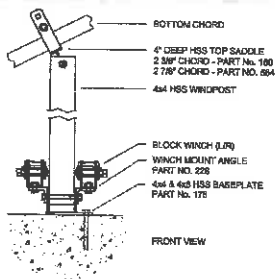
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PROJECT:
 ATLAS 24
 72' x 140' - 420 GM
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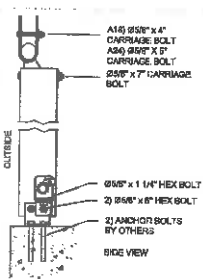
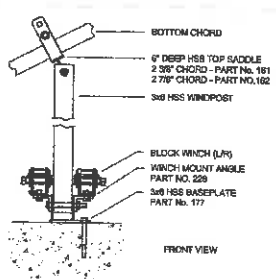
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DRAWING TITLE:
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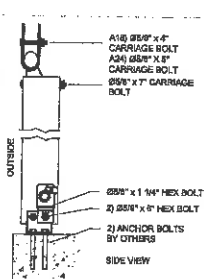
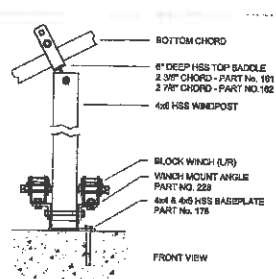




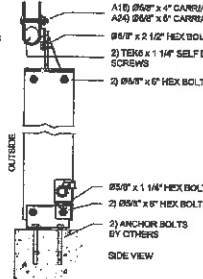
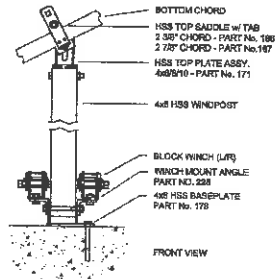
A 4x4 HSS WINDPOST CONNECTION DETAILS
ED-1



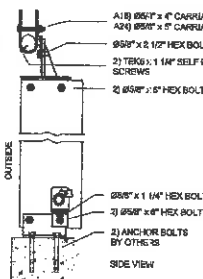
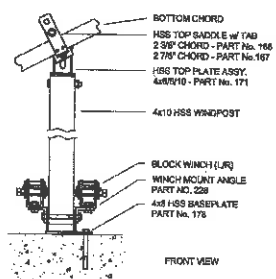
B 3x6 HSS WINDPOST CONNECTION DETAILS
ED-1



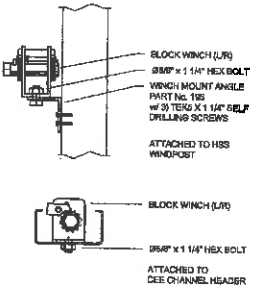
C 4x6 HSS WINDPOST CONNECTION DETAILS
ED-1



D 4x8 HSS WINDPOST CONNECTION DETAILS
ED-1



E 4x10 HSS WINDPOST CONNECTION DETAILS
ED-1



F VARIOUS BLOCK WINCH CONNECTION DETAILS
ED-1



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FAX: 1-519-528-2880

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DEALER:
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812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

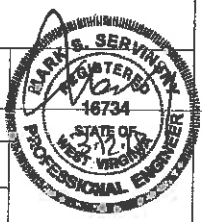
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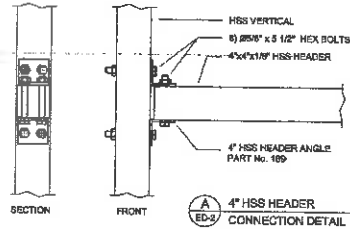
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PROJECT:
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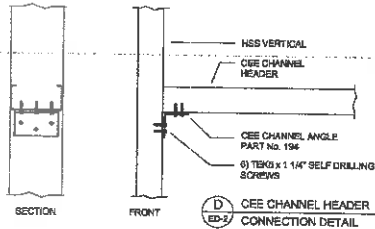
ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-HSSCHOP:
72-420-220-18-0

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EAVE DETAILS
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ED-1
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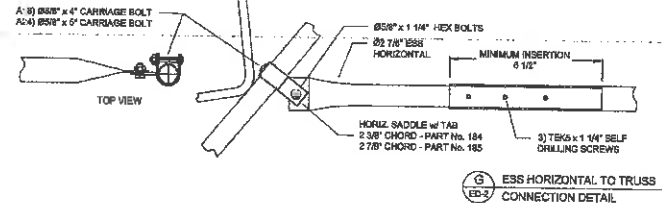




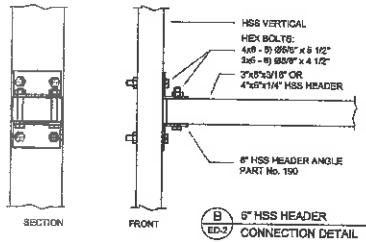
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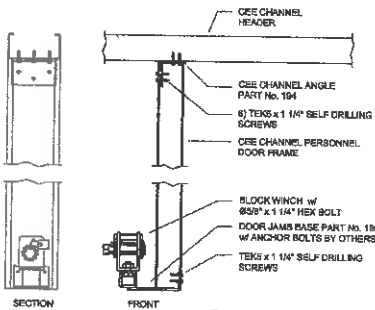
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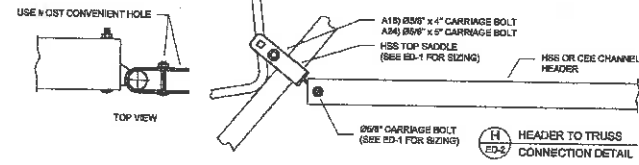
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ED-2
ESS HORIZONTAL TO TRUSS
CONNECTION DETAIL



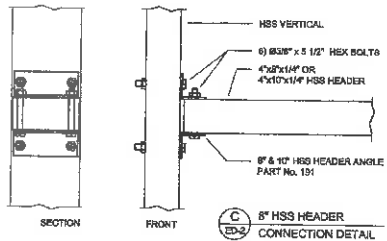
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ED-2
6\"/>



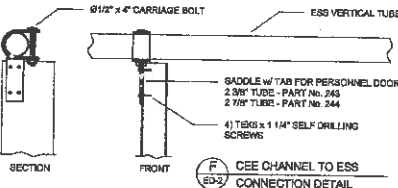
E
ED-2
CEE CHANNEL MAN DOOR
CONNECTION DETAILS



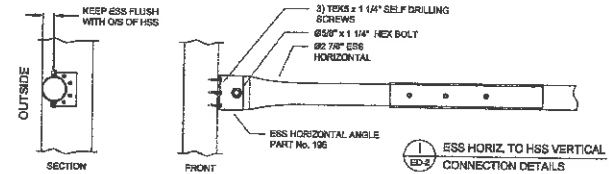
H
ED-2
HEADER TO TRUSS
CONNECTION DETAIL



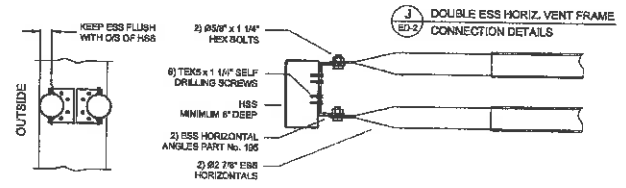
C
ED-2
8\"/>



F
ED-2
CEE CHANNEL TO ESS
CONNECTION DETAIL



I
ED-2
ESS HORIZ TO HSS VERTICAL
CONNECTION DETAILS



J
ED-2
DOUBLE ESS HORIZ. VENT FRAME
CONNECTION DETAILS



37851 Amberley Road
Luker, ON, Canada
N0G 2H0
PH: 1-519-529-2922
FAX: 1-519-628-2880

| REV. | DESCRIPTION | DATE |
|------|---------------------|----------|
| 1 | ISSUED FOR BID ONLY | 12MAR.18 |

DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV.26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV. 25918

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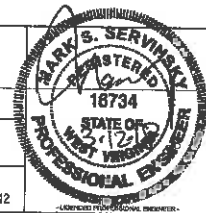
DRAWN BY:
ML
CHECKED BY:
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PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5909
WIDTH-STEEL-FAB-HSS-4SSDROP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL DETAILS
SHEET NO.:
ED-2

PAGE NO.:
012 / 12



This project has been designed and fabricated in accordance with the following:
 1. BRITESPAN
 Owner's Name and Address: WYDOH
 200 SAMAMITAN DRIVE, SHADY SPRINGS, WV, 25918
 COVER-ALL BUILDINGS OF WEST VIRGINIA, INC.
 Building Supplier's Name and Address: BRITESPAN BUILDING SYSTEMS, INC.
 200 SAMAMITAN DRIVE, SHADY SPRINGS, WV, 25918
 Manufacturer's Name and Address: BRITESPAN BUILDING SYSTEMS, INC.
 200 SAMAMITAN DRIVE, SHADY SPRINGS, WV, 25918
 Site Location: 200 SAMAMITAN DRIVE, SHADY SPRINGS, WV, 25918
 Legal Address: 200 SAMAMITAN DRIVE, SHADY SPRINGS, WV, 25918

Building Type: ATR-104
 Building Size: 72' x 140' x 24' (HEADS IN)
 Application Building Code: COVER-ALL BUILDINGS OF WEST VIRGINIA, INC.
 Storage - MULTYRAMP
 Construction Type: CONCRETE
 Detail Type: NONE

DESIGN STANDARDS
 ASCE 7-10, minimum design loads for buildings and other structures.
 ASCE 7-10, Specification for Structural Steel Buildings
 AISI-1009, North American Specification for the Design of Cold-Formed Steel Structural Members
 AISC 360, Specification for Structural Steel Buildings
 AISC 360, Specification for Structural Steel Buildings
 AISC 360, Specification for Structural Steel Buildings
 AISC 360, Specification for Structural Steel Buildings
 AISC 360, Specification for Structural Steel Buildings

WIND LOADS
 WIND SPEED: 130 MPH
 EXPOSURE: B
 ZONE: II
 WIND DIRECTION: 90 DEGREES
 WIND LOADS: 12.0 psf
 WIND UPLIFT: 12.0 psf
 WIND LIFT: 12.0 psf
 WIND DOWN: 12.0 psf
 WIND PRESSURE: 0.5 psf
 WIND SUCK: 0.5 psf
 WIND FORCE: 0.5 psf
 WIND MOMENT: 0.5 psf
 WIND TORSION: 0.5 psf
 WIND VIBRATION: 0.5 psf
 WIND ACCELERATION: 0.5 psf
 WIND DECELERATION: 0.5 psf

| MEMBER | SIDE A | | SIDE B | |
|-------------------|----------------------|--------------------|----------------------|--------------------|
| | HORIZONTAL X (ft) | VERTICAL Y (ft) | HORIZONTAL X (ft) | VERTICAL Y (ft) |
| LEAD FRAME | 0.00 | 0.00 | 0.00 | 0.00 |
| BRIM | 0.00 | 0.11 | -0.06 | 0.00 |
| COLLAR/BASE | 0.00 | 0.11 | -0.06 | 0.00 |
| LIVE | 3.74 | 4.89 | -3.94 | 4.09 |
| SHOW UNBALANCED | 3.96 | 4.99 | -4.36 | 5.09 |
| SHOW UNBALANCED | 3.96 | 4.99 | -4.36 | 5.09 |
| WIND UP/CLEARANCE | -3.38 | 8.55 | -3.31 | 8.55 |
| WIND DOWN/BALANCE | -5.59 | -7.51 | 1.49 | -7.51 |



GENERAL
 THESE DRAWINGS INCLUDE INFORMATION HEREON, REGARDING THE PROPERTY OF BRITESPAN BUILDING SYSTEMS, INC. IT IS PROVIDED ONLY FOR THE BUILDING DESCRIBED IN THE SAID ORDER AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF BRITESPAN BUILDING SYSTEMS, INC.
 THE GENERAL CONTRACTOR/OWNER/BUILDER IS SOLELY RESPONSIBLE FOR ACCURATE, GOOD QUALITY DIMENSIONS OF THE BUILDING SIZE, BUILDING OR COMPONENTS WITH THESE DRAWINGS. SPECIFIC REFERENCES IN THESE DRAWINGS AND DIMENSIONS ESTIMATED PARTICIPANTS TO PROPER ERECTION INCLUDING THE PROPER USE OF THROUGH BRACING.
 THIS BUILDING IS TO BE LIFTED AS AN ASSEMBLED UNIT. BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESPONSIBLE FOR LIFTING AND/OR DAMAGE AS A RESULT OF LIFTING THIS BUILDING. IF, HOWEVER, IT HAS BEEN DETERMINED TO LIFT THIS BUILDING, IT IS THE RESPONSIBILITY OF THE PERSON, FIRM OR COMPANY CONTRACTED TO LIFT THE BUILDING TO SECURE THE SERVICES OF A QUALIFIED ENGINEER TO DESIGN THE LIFT AND TO DAMAGE THE BUILDING AND TO DESIGN AND FABRICATE ALL ASPECTS OF THE LIFT INCLUDING ALL PARTS/COMPONENTS TO BE ADDED TO THE BUILDING TO FACILITATE THE LIFT.
 BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESPONSIBLE FOR CRACKS, DISINTEGRATION OR DAMAGES INCURRED IN THE ERECTION OF THE COMPONENTS SHOWN ON THESE DRAWINGS, NOR FOR THE DISINTEGRATION OF ERECTED COMPONENTS BY SETTLING OR SLIDING.
 THIS CERTIFICATION AND DIMENSIONS SHALL APPLY ONLY TO PRODUCTS DESIGNED AND MANUFACTURED BY BRITESPAN BUILDING SYSTEMS, INC. FOR THE LIFTING CONDITIONS DESCRIBED ON THESE DRAWINGS.
 CONCRETE FOUNDATIONS, OTHER COMPONENTS OF OTHERS AND EXISTING FOUNDATIONS ARE NOT THE RESPONSIBILITY OF BRITESPAN BUILDING SYSTEMS, INC. OR THE CONTRACTOR THEREON. ALL DAMAGED, MISSING AND BUILT-UP CHANGES MUST BE DESIGNATED TO SUPPORT THE SITE WIND LOADS AND ARE LEFT UP TO BE CLOSED IN THE EVENT OF HIGH WINDS.
 ANY CERTIFICATION AND DIMENSIONS SHALL APPLY ONLY TO PRODUCTS DESIGNED AND MANUFACTURED BY BRITESPAN BUILDING SYSTEMS, INC. FOR THE LIFTING CONDITIONS DESCRIBED ON THESE DRAWINGS.
 CONCRETE FOUNDATIONS, OTHER COMPONENTS OF OTHERS AND EXISTING FOUNDATIONS ARE NOT THE RESPONSIBILITY OF BRITESPAN BUILDING SYSTEMS, INC. OR THE CONTRACTOR THEREON. ALL DAMAGED, MISSING AND BUILT-UP CHANGES MUST BE DESIGNATED TO SUPPORT THE SITE WIND LOADS AND ARE LEFT UP TO BE CLOSED IN THE EVENT OF HIGH WINDS.

ANCHOR BOLTS
 ANCHOR BOLT DIAMETERS ARE DETERMINED IN ACCORDANCE WITH ORA STANDARD C-818.1, USING Fy = 58 KSI (405 MPa). ANCHOR BOLT LENGTHS AND LOAD CAPACITY FOR THE FOUNDATION ARE TO BE DETERMINED BY OTHERS.
 ANCHOR BOLT PROTRUDING BASED ON NO GROUT ARE AS FOLLOWS:
 FOUNDATION MUST BE LEVEL, SQUARE AND EXACT. ANCHOR BOLTS MUST BE ACCURATELY PLACED AS SHOWN ON THE FOUNDATION.
 FINISHED FLOOR ELEVATIONS AND UNDERLAY OF BASE PLATE IS 100'-0" (300.00mm) UNLESS NOTED OTHERWISE.

ERECTOR
 THE ERECTOR MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL THE LIFTING DEVICES ARE TO BE SPECIFICALLY DESIGNED TO LIFT THE SHOWN BUILDING COMPONENTS. ALL ARE APPROVED AND ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.
 ERECTOR SHALL START AT A BRACE END, ERECT AND TEMPORARILY SUPPORT TRUSSES. USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE PANELS. INSTALL PURCHASER AND CROSS BRACING, PLUMB AND SQUARE TRUSSES IN ACCORDANCE WITH CAN-C-11.1 AND CAN-C-11.1 PART 1000 - SHEET STANDARD FOR STEEL ERECTION.
 ENSURE ALL PURLIN REMAIN PARALLEL.
 STRUCTURAL FIXINGS ADDRESS ARE CONSIDERED PLUMB, LEVEL, AND ALLOWED WHEN THE VARIANCE DOES NOT EXCEED 1/1600."

ANCHOR BOLTS
 ANCHOR BOLTS MUST BE SUBJECT TO TENSION LOADS, OR WHERE LOADING DUE TO VIBRATION OR LOAD FLUCTUATIONS ARE NOT DESIGN CONSIDERATIONS MUST ONLY BE SHOWN TEMPORARY. WHEN IN CONTACT WITH THE TRUSS/CHANGING PARTS THAT EXISTE THERE ALL PILES AS A JOINT ARE TO REMAIN CONTACT, ALL STRUCTURAL BOLT DIAMETERS LESS THAN 1" COUPLING TO ONE SIDE SHALL BE PLATED / GALVANIZED OR JARRO COATED FINISH. ALL STRUCTURAL BOLT DIAMETERS LESS THAN 1" COUPLING TO TWO SIDES SHALL BE PLATED / GALVANIZED OR JARRO COATED FINISH.
 ALL BOLTS LARGER THAN 1" (25mm) DIA. EXCEPT TO ASTM A307. ALL OTHER DIA AND HEAD BOLTS conform to the GR 5 or GR 60 EQUIVALENT.
 ALL BOLTS SHALL BE PLATED / GALVANIZED OR JARRO COATED.
 BOLTS TO BE COATED WITH ZINC DUST AND OIL.
 BOLTS IN CONNECTIONS MUST BE SUBJECT TO TENSION LOADS REQUIRE PHOSPHORUM TO MINIMUM TENSION VALUE AS SHOWN IN THE TABLE BELOW.
 TABLE A - BOLT TENSION
 SIZE STRENGTH STRENGTH
 3/8" 30 30
 1/2" 45 45
 5/8" 60 60
 3/4" 75 75
 1" 90 90
 1 1/4" 120 120

| SIZE | GRADE 5 | | | |
|--------|---------|-------|-------|---------|
| | Tension | Proof | Yield | Torsion |
| 3/8" | 30 | 30 | 30 | 30 |
| 1/2" | 45 | 45 | 45 | 45 |
| 5/8" | 60 | 60 | 60 | 60 |
| 3/4" | 75 | 75 | 75 | 75 |
| 1" | 90 | 90 | 90 | 90 |
| 1 1/4" | 120 | 120 | 120 | 120 |

STRUCTURAL BOLT TORQUE VALUES
 TABLE B - LISTED THE BOLT CLAMP WITH A SUGGESTED TORQUE VALUE.
 TABLE B - TORQUE
 SIZE TORQUE
 3/8" 20
 1/2" 30
 5/8" 40
 3/4" 50
 1" 60
 1 1/4" 80

GENERAL SPECIFICATIONS
 MILLING STRUCTURAL SECTION CONFORM TO ORA C-818.1-48 (2000).
 STRUCTURAL PLATE CONFORM TO THE FOLLOWING SPECIFICATIONS:
 PLATES 400.21 (48) 400.21 (ASTM A572 GR 50) (2000)
 U.S.S. 400.21 (48) 400.21 (ASTM A572 GR 50) (2000)
 COATINGS OF STRUCTURAL PLATES ARE HOT-DIP GALVANIZED TO ACCORDANCE WITH ASTM 103.
 TRUSSES ARE HOT-DIP GALVANIZED INSIDE AND OUT IN ACCORDANCE WITH 103.
 CONCRETE FOUNDATION CONFORM TO ALL THE HOT-DIP GALVANIZED SURFACES TO PROVIDE ADDITIONAL CORROSION PROTECTION.
 PURLINS ARE HOT-DIP GALVANIZED AND PRE-GALVANIZED.
 STRUCTURAL BRACE STEEL SHALL BE EXACTLY AS SHOWN FOR ASTM A572
 CROSS CORNER - 6 (1/4") (6mm) TO 1/4".
 STRUCTURAL COMPONENTS ARE AS FOLLOWS:
 2" X 1/4" (50.8mm) TUBES - 04' (1219mm) RAD TUBING 2" X 1/4" (50.8mm) MS B
 2" X 1/4" (50.8mm) PURLIN
 ALL OTHER CONNECTIONS - MS B (ASTM)
 FUSIONS / LINES NOTES
 BEARING POINTS IS AN INTERNAL PART OF THE STRUCTURAL SYSTEM. INTERNAL OR ALTERNATE BEARING POINTS AUTHORIZATION IS PROHIBITED. ALL TRUSS MUST BE PAIDIMED IMMEDIATELY TO AVOID UNDESIRABLE DEFORMATION.
 EXTERIOR PANELS WILL DEFLECT UNDER LOAD. THEREFORE ALL BUILDING COMPONENTS (TRUSSING, HEADS, BRACES, ETC) MUST BE LOCATED WITHIN THE TENSION ZONE OF THE TRUSS. ANYWHERE ABOVE THIS ZONE BE APPROVED AND APPROVED ON BEHALF OF BRITESPAN BUILDING SYSTEMS, INC. BEFORE DAMAGE TO THE BUILDING AND ACCESSORIES MAY RESULT FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
 PANEL SPECIFICATIONS
 ALL POLYETHYLENE DECKING SHALL PASS THE FOLLOWING SYSTEM SPECIFICATIONS:
 PANEL PROPERTIES DESCRIPTION
 SHEET SHEET SHEET
 CORE CORE CORE
 COATING COATING COATING
 FINISH FINISH FINISH
 TYPE TYPE TYPE
 WEIGHT WEIGHT WEIGHT
 BENDING BENDING BENDING
 STRENGTH STRENGTH STRENGTH
 TORQUE TORQUE TORQUE
 TENSILE TENSILE TENSILE
 SHEET SHEET SHEET
 FINISH FINISH FINISH
 TYPE TYPE TYPE
 WEIGHT WEIGHT WEIGHT
 BENDING BENDING BENDING
 STRENGTH STRENGTH STRENGTH
 TORQUE TORQUE TORQUE
 TENSILE TENSILE TENSILE
 SHEET SHEET SHEET
 FINISH FINISH FINISH
 TYPE TYPE TYPE
 WEIGHT WEIGHT WEIGHT
 BENDING BENDING BENDING
 STRENGTH STRENGTH STRENGTH
 TORQUE TORQUE TORQUE
 TENSILE TENSILE TENSILE

| DRAWING SCHEDULE | | REVISIONS | |
|------------------|----------------------|-----------|------------|
| DWG # | DRAWING TITLE | REV. | DATE |
| FB-1 | COVER PAGE | 1 | 12.08.2018 |
| FB-2 | FOUNDATION LAYOUT | 1 | 12.08.2018 |
| FB-3 | TRUSS LAYOUT | 1 | 12.08.2018 |
| FB-4 | PURLIN LAYOUT | 1 | 12.08.2018 |
| FB-5 | BRACING LAYOUT | 1 | 12.08.2018 |
| FB-6 | INTERNAL LAYOUT | 1 | 12.08.2018 |
| FB-7 | FOUNDATION DETAILS | 1 | 12.08.2018 |
| FB-8 | TRUSS DETAILS | 1 | 12.08.2018 |
| FB-9 | PURLIN DETAILS | 1 | 12.08.2018 |
| FB-10 | BRACING DETAILS | 1 | 12.08.2018 |
| FB-11 | INTERNAL DETAILS | 1 | 12.08.2018 |
| FB-12 | FOUNDATION DETAILS 2 | 1 | 12.08.2018 |
| FB-13 | TRUSS DETAILS 2 | 1 | 12.08.2018 |
| FB-14 | PURLIN DETAILS 2 | 1 | 12.08.2018 |
| FB-15 | BRACING DETAILS 2 | 1 | 12.08.2018 |
| FB-16 | INTERNAL DETAILS 2 | 1 | 12.08.2018 |

ROOF PLAN NOTES
 BEFORE LIFTING THE BUILDING, THE TRUSS BRACING IS TO BE INSTALLED TO TRUSS AND ANCHORS TO TRUSS FOR ALL CONNECTIONS.
 GABLE / MID AND PURLIN BRACING ARE AN INTERNAL PART OF THE TRUSS STRUCTURAL SYSTEMS AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF FRAMED ROOF AND EXTERNAL PANELS. PERMANENT ALTERATION OF ANY BRACING WITHOUT PRIOR AUTHORIZATION FROM BRITESPAN BUILDING SYSTEMS, INC. IS PROHIBITED.
 ELEVATION NOTES
 WALK DOWN, WINDOWN AND FINISH OPENING PORTS TO BE FIELD ANCHORED TO CONCRETE WITH #3" (8mm) "BOLT-NUTS" OR EQUIVALENT.
 MATERIAL SPECIFICATIONS
 GALVANIZED ALUMINUM AND COLORED METALS ARE SUBJECT TO CORROSION AND DISCOLORATION BY WEATHER. ALL MATERIALS SHOULD BE PROTECTED AGAINST CORROSION AND DISCOLORATION BY WEATHER. ALL MATERIALS SHOULD BE PROTECTED AGAINST CORROSION AND DISCOLORATION BY WEATHER.
 SITE: BRITESPAN BUILDING SYSTEMS, INC. WILL NOT BE HELD RESPONSIBLE FOR MATERIALS WHICH ARE INADEQUATELY PROTECTED AFTER DELIVERY.

MANUFACTURING STANDARDS
 MANUFACTURE IS IN ACCORDANCE WITH CAN/C-818.1-48 (2000), AS APPLICABLE.
 BRITESPAN BUILDING SYSTEMS, INC. IS AN ISO 9001 CERTIFIED FACTORY. ALL MANUFACTURING OF TRUSSES, ALL WELDS AND CONNECTIONS SHALL BE TO THE STANDARD CAN/C-818.1-48 (2000), AS PART OF OUR OUR CERTIFICATION AND EMPLOYMENT TO OUR PARTS TESTS OUR BUILDINGS AND PROCEDURES AND ALSO OUR FACILITIES. THIS CERTIFICATION MEETS WITH ASME SECTION III, AND PERMITS OUR FACILITIES.
 BLOCK FOUNDATION DESIGNER SHALL DETERMINE ANCHOR BOLT SIZE AND TYPE FOR BRITESPAN LOADS. PROPER MINIMUM EDGE DISTANCE FROM CENTER OF ANCHORS TO EDGE OF CONCRETE BLOCK SIDEWALLS AND ENDWALLS SHALL BE PROVIDED FOR THE ANCHOR TYPE. FOUNDATION DESIGN AND STABILITY OF BLOCKS FOR OVERTURNING IS NOT BY SERINSKY ENGINEERING, PLLC.

Serinsky Engineering PLLC
 280 Douglas Ave
 Holland, Michigan 49424
 616-738-1281

Building E CAW. 18.003



37651 Amberley Road
 Lucknow, ON, Canada
 N0G 2H0
 PH: 1-519-528-2922
 FAX: 1-519-528-2890

| REV. | DESCRIPTION | DATE |
|------|---------------------|-------------|
| 1 | ISSUED FOR BID ONLY | 12.MAR.2018 |

DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 812 N. OHIO AVE.
 CLARKSBURG, WV 26301

CUSTOMER:
 WYDOH
 200 SAMAMITAN DRIVE
 SHADY SPRINGS, WV, 25918

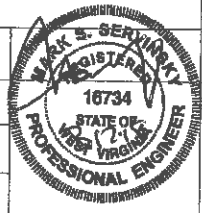
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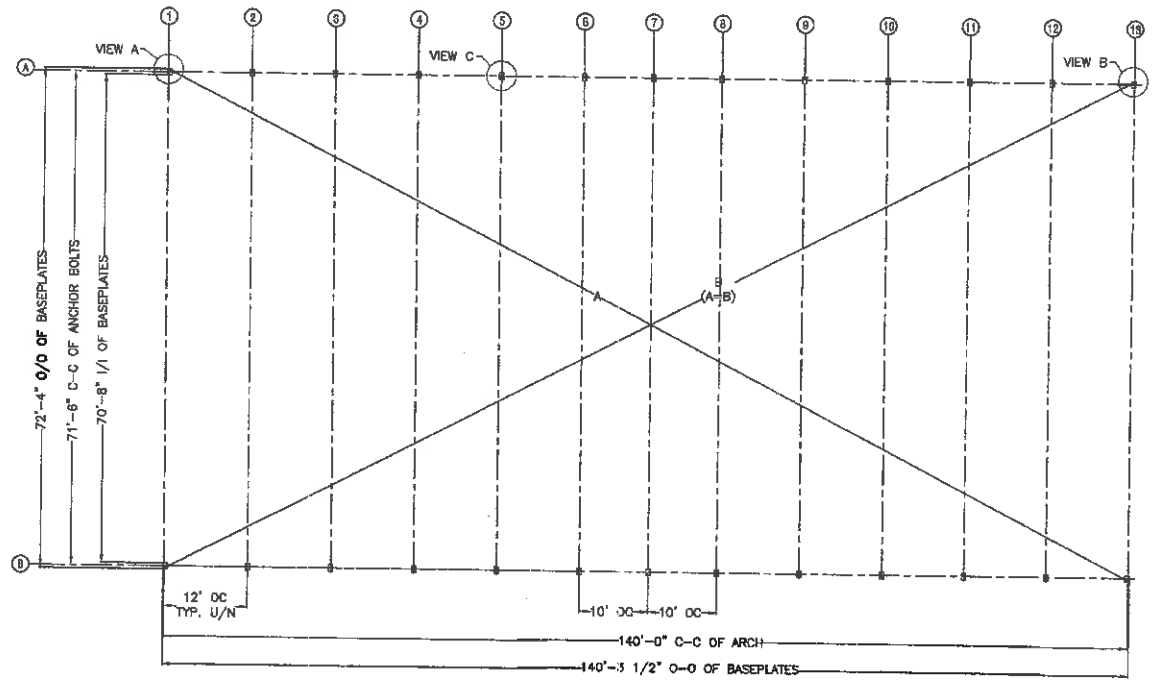
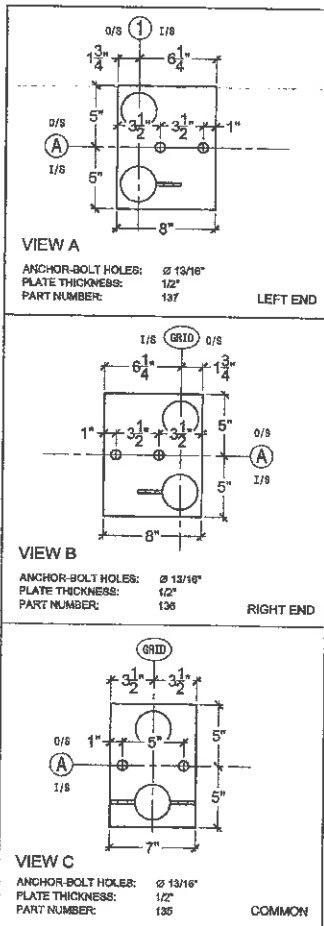
PROJECT:
 ATLAS 24
 72' x 140' - 420 GM
 12' & 10' oc

ORDER ID:
 SO-5910
 WIDTH-STEEL-FAB-HSS-HSSDRP:
 72-420-220-18-0

DRAWING TITLE:
 COVER PAGE
 SHEET NO.: FB-1
 PAGE NO.: 001 / 12



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BRITESPAN
 BUILDING SYSTEMS INC

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 Lucknow, ON, Canada
 N0G 2H0
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DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 842 N. OHIO AVE.
 CLARKSBURG, WV 26301

PROJECT:
 ATLAS 24
 72' x 140' - 420 GM
 12' & 10' oc

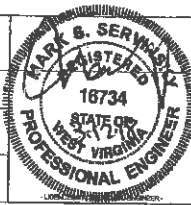
CUSTOMER:
 WVD0H
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918

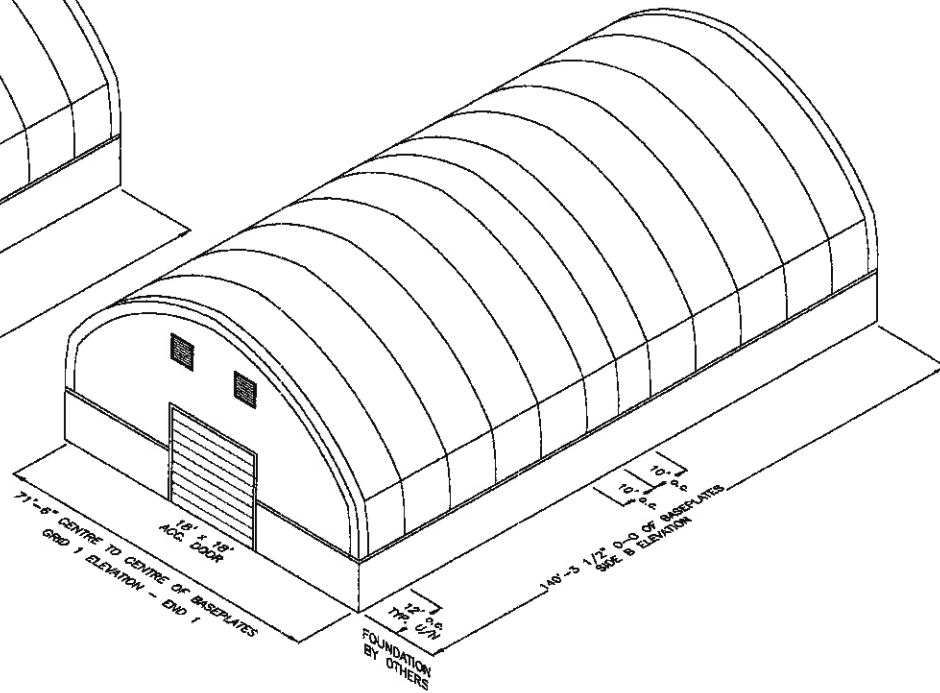
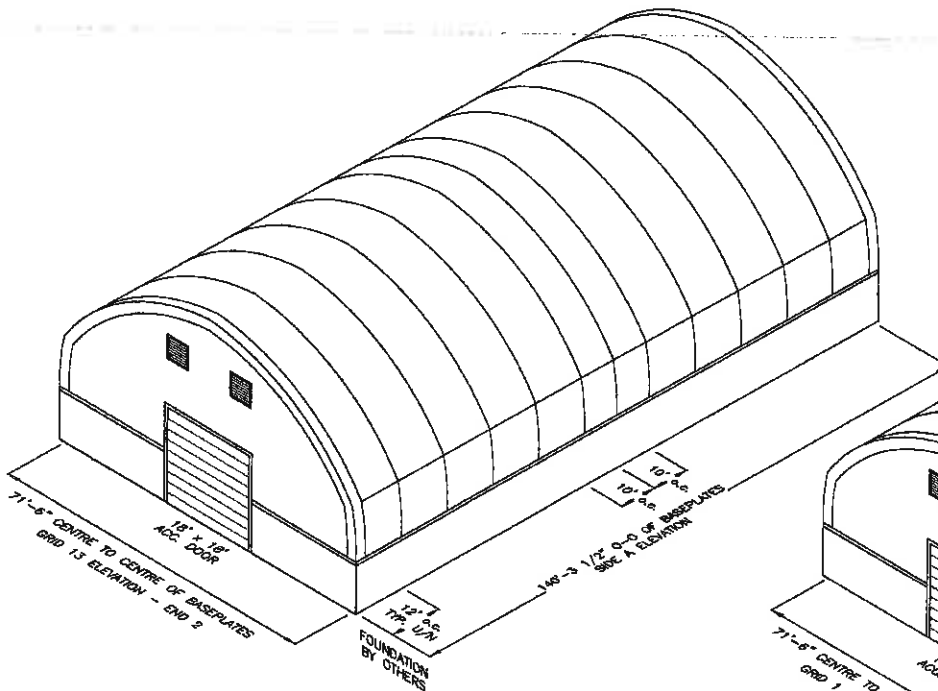
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 72-420-220-18-0

DRAWING TITLE:
 BASEPLATE LAYOUT

SHEET NO.: FB-2
 PAGE NO.: 002 / 12





MAIN COVER: SANDSTONE NON-FR
 ENDFLAP: GREEN NON-FR
 END WALLS: SANDSTONE NON-FR



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| 1 | ISSUED FOR BID ONLY | 12/MAR/2018 |
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| | | |
| | | |

DEALER:
 COVER-ALL BUILDINGS OF WEST VIRGINIA
 812 N. OHIO AVE.
 CLARKSBURG, WV 26301

CUSTOMER:
 WVDOH
 200 SAMAITAN DRIVE
 SHADY SPRINGS, WV. 25918

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DRAWN BY:
 ML
 CHECKED BY:
 EM

PROJECT:
 ATLAS 24
 72' x 140' - 420 GM
 12' & 10' oc

ORDER ID:
 SO-5910
 WIDTH-STEEL-FAB-HSS-HSSDROP:
 72-420-220-18-0

DRAWING TITLE:
 PROJECT LAYOUT
 SHEET NO.:
 FB-3

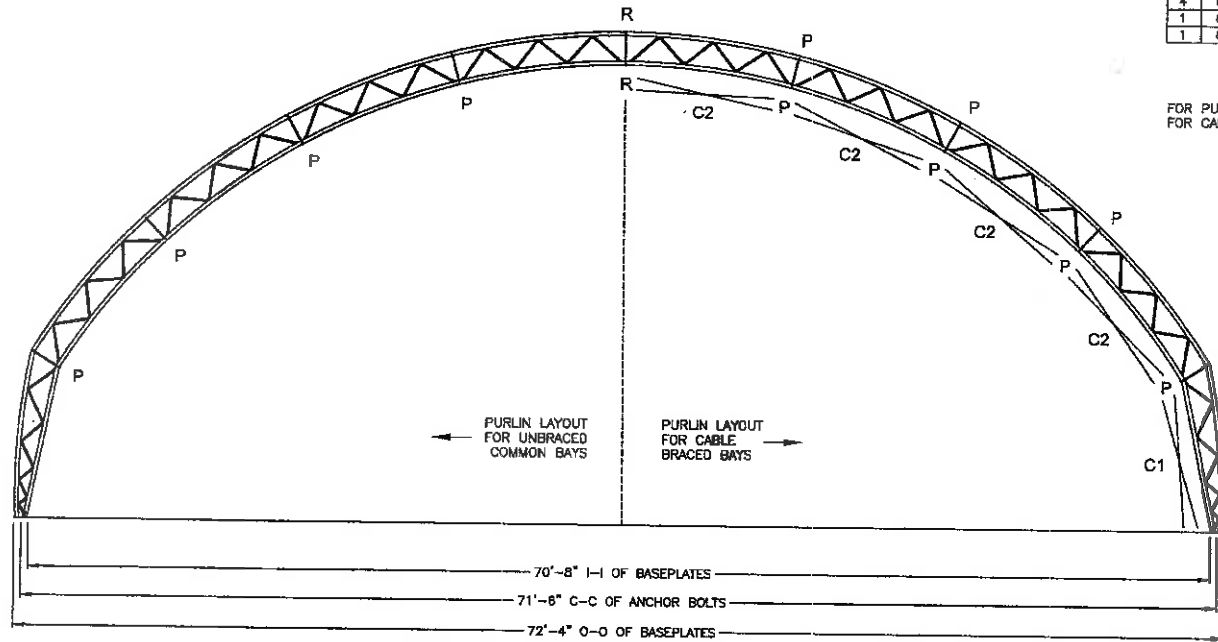
PAGE NO.:
 003 / 12



ATLAS24 - 72'w

| Qty. | TRUSS & PART No. |
|----------------|--|
| INTERIOR TRUSS | |
| 4 | 85' / 70' / 72' / 82' COMMON TRUSS - 130 |
| 2 | 85' / 72' COMMON LEG - 135 |
| END TRUSS | |
| 4 | 85' / 70' / 72' / 82' END TRUSS - 132 |
| 1 | 85' / 72' RIGHT END LEG - 136 |
| 1 | 85' / 72' LEFT END LEG - 137 |

FOR PURLIN LOCATIONS SEE: SD-1 pg. 008
FOR CABLE LOCATIONS SEE SD-2 pg. 009



| A-24 72' | 16' BAY | | 14' BAY | | 12' BAY | | 10' BAY | | 8' BAY | | 8' BAY | | 5' BAY | |
|----------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|
| | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH | ITEM # | LENGTH |
| C1 CABLE | 881225-9 | 225" | 881205-9 | 205" | 881186-9 | 186" | 881167-9 | 167" | 881151-9 | 151" | 881138-9 | 136" | 881131-9 | 131" |
| C2 CABLE | 881230-9 | 230" | 881210-9 | 210" | 881192-9 | 192" | 881174-9 | 174" | 881157-9 | 157" | 881145-9 | 145" | 881140-9 | 140" |
| C3 CABLE | | | | | | | | | | | | | | |

| BRACING LEGEND | |
|----------------|----------------|
| P | = PURLIN |
| R | = RIDGE PURLIN |
| X | = CROSS CABLE |

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DATE: 12 MAR 2018



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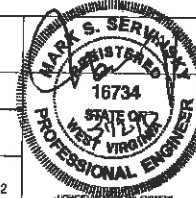
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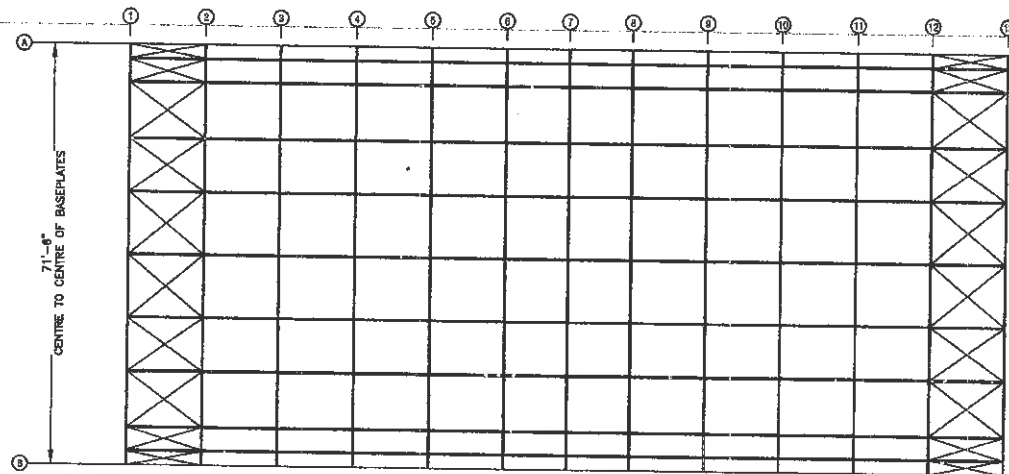
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WIDTH-STEEL-FAB-HSS-HSDROP:
72-420-220-18-0

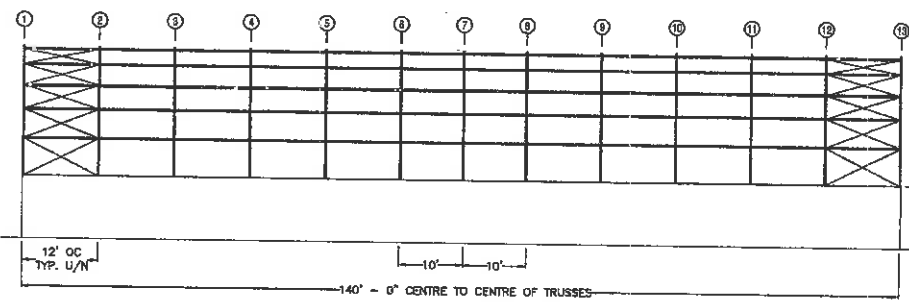
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PURLIN & X-CABLE LAYOUT
SHEET NO.:
FB-4
PAGE NO.:
004 / 12





PLAN VIEW

FOR PURLIN DETAILS SEE:
SD-1 pg. 008
FOR CABLE DETAILS SEE:
SD-2 pg. 009
NOTE: THIS BUILDING USES ALL
2 7/8" 140a PURLINS



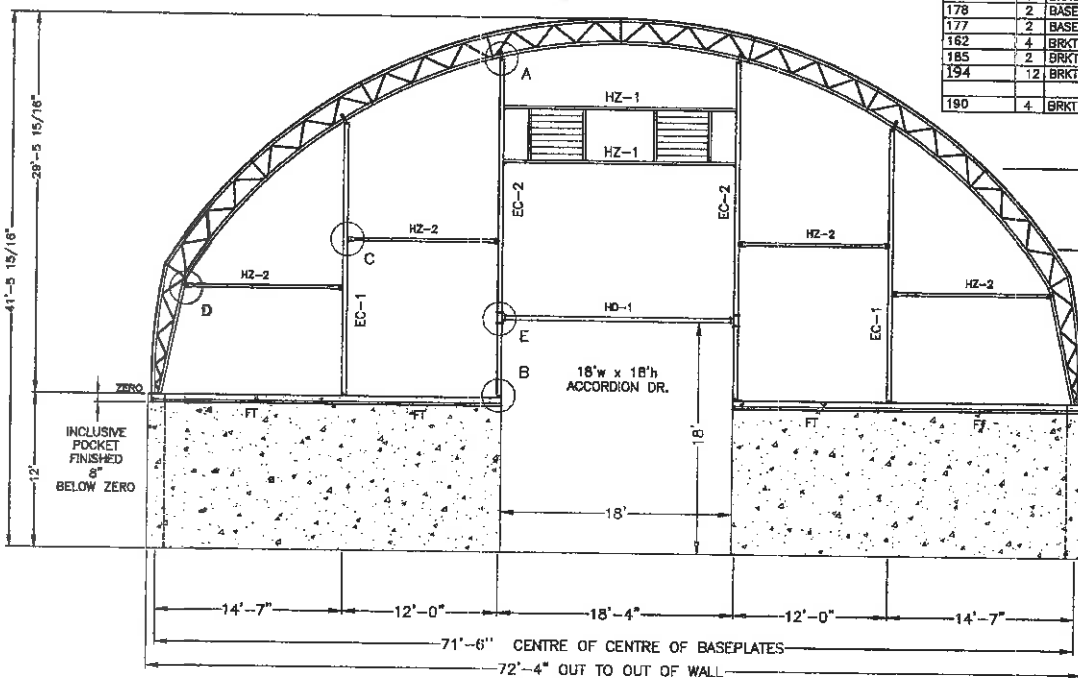
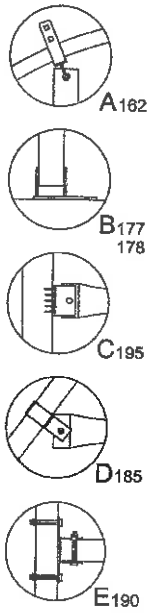
ELEVATION

BUILDING BASEPLATES
ELEV. 900'-0"

12' OC
TYP. U/N

140'-0" CENTRE TO CENTRE OF TRUSSES

| | | | | | | | |
|---|--|---|--|------------------------|---|---|-----------------------|
| | 37651 Amberley Road Lucknow, ON, Canada N9G 2H0 PH: 1-519-528-2922 FAX: 1-519-528-2890 | REV: | DESCRIPTION: | DATE: | DEALER: | CUSTOMER: | |
| | | 1 | ISSUED FOR BID ONLY | 12 MAR 2016 | COVER-ALL BUILDINGS OF WEST VIRGINIA 812 N. OHIO AVE. CLARKSBURG, WV. 26301 | WVDOH 200 SAMAITAN DRIVE SHADY SPRINGS, WV. 25918 | |
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| | | ATLAS 24 72' x 140' - 420 GM 12' & 10' oc | SO-5910 WIDTH-STEEL-FAB-HSS-HSSDROP. 72-420-220-18-0 | BRACING LAYOUT FB-5 | | | |



| MARK# | QTY | COMPONENTS (in) |
|-------|-----|--|
| EC-1 | 2 | 3x8x3/16" 252" HSS VERTICAL |
| EC-2 | 2 | 4x8x1/4" 313" HSS VERTICAL |
| HZ-1 | 3 | 6" CEE CHANNEL - 20' LONG |
| HZ-2 | 4 | 3200Q039 (2 1/2" - 14GA) + 3200D122 (2 7/8" 14 GA) |
| HD-1 | 1 | 3x8x3/16" 215" HSS HEADER |
| FT | - | 2 3/8" DIA X 14 Ga FASTENING TUBE CUT TO LENGTH |
| 195 | 6 | BRACKET - HORIZ ANGLE |
| 178 | 2 | BASE PLATE - 4x4/6 HSS |
| 177 | 2 | BASE PLATE - 3x6 HSS |
| 182 | 4 | BRKT - TOP SADDLE ASSY 6" DEEP - 2 7/8" CHORD |
| 185 | 2 | BRKT - HORIZONTAL SADDLE WITH TAB - 2 7/8" CHORD |
| 194 | 12 | BRKT - CEE CHANNEL ANGLE |
| 190 | 4 | BRKT - 6" HSS HEADER ANGLE |

FOUNDATION BY OTHERS



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DEALER:
COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
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SHADY SPRINGS, WV. 25918

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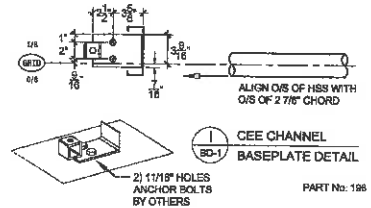
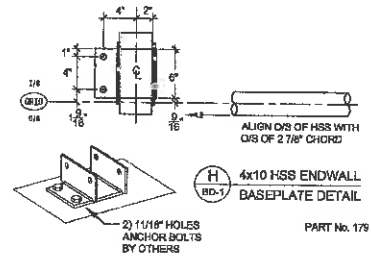
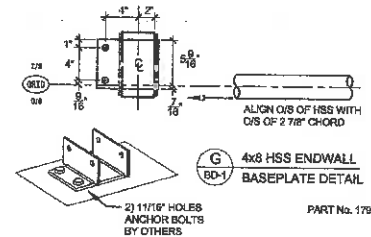
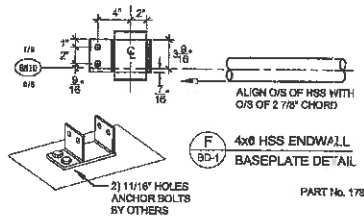
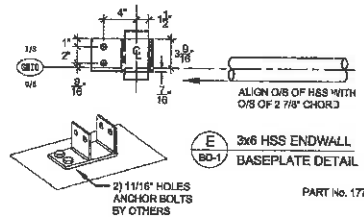
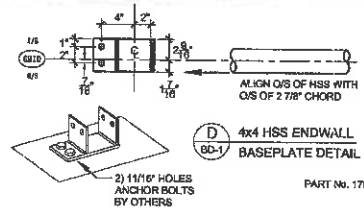
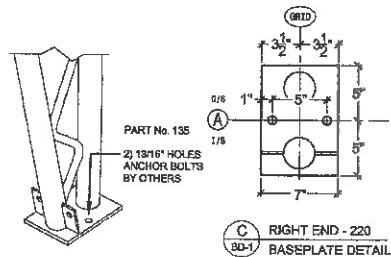
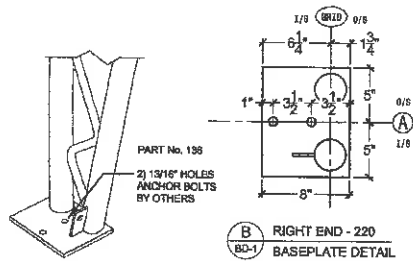
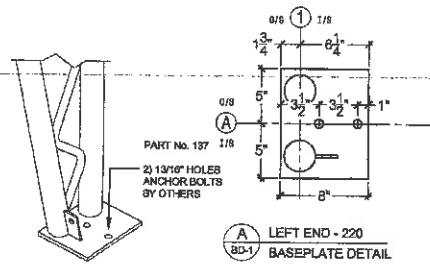
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PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

ORDER ID:
SO-5910
WIDTH STEEL FAB-HSS-HSSDROP:
72-420-220-18-0

DRAWING TITLE:
ENDWALL LAYOUT
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EW-1&2
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PH: 1-619-528-2922
FAX: 1-519-528-2890

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12.MAR.2018

DEALER:

COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:

WVDOH
200-SAMAITAN-DRIVE
SHADY SPRINGS, WV. 25918

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72' x 140' - 420 GM
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ORDER ID:
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72-420-220-18-0

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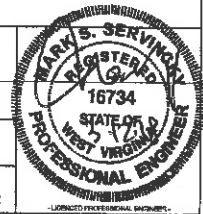
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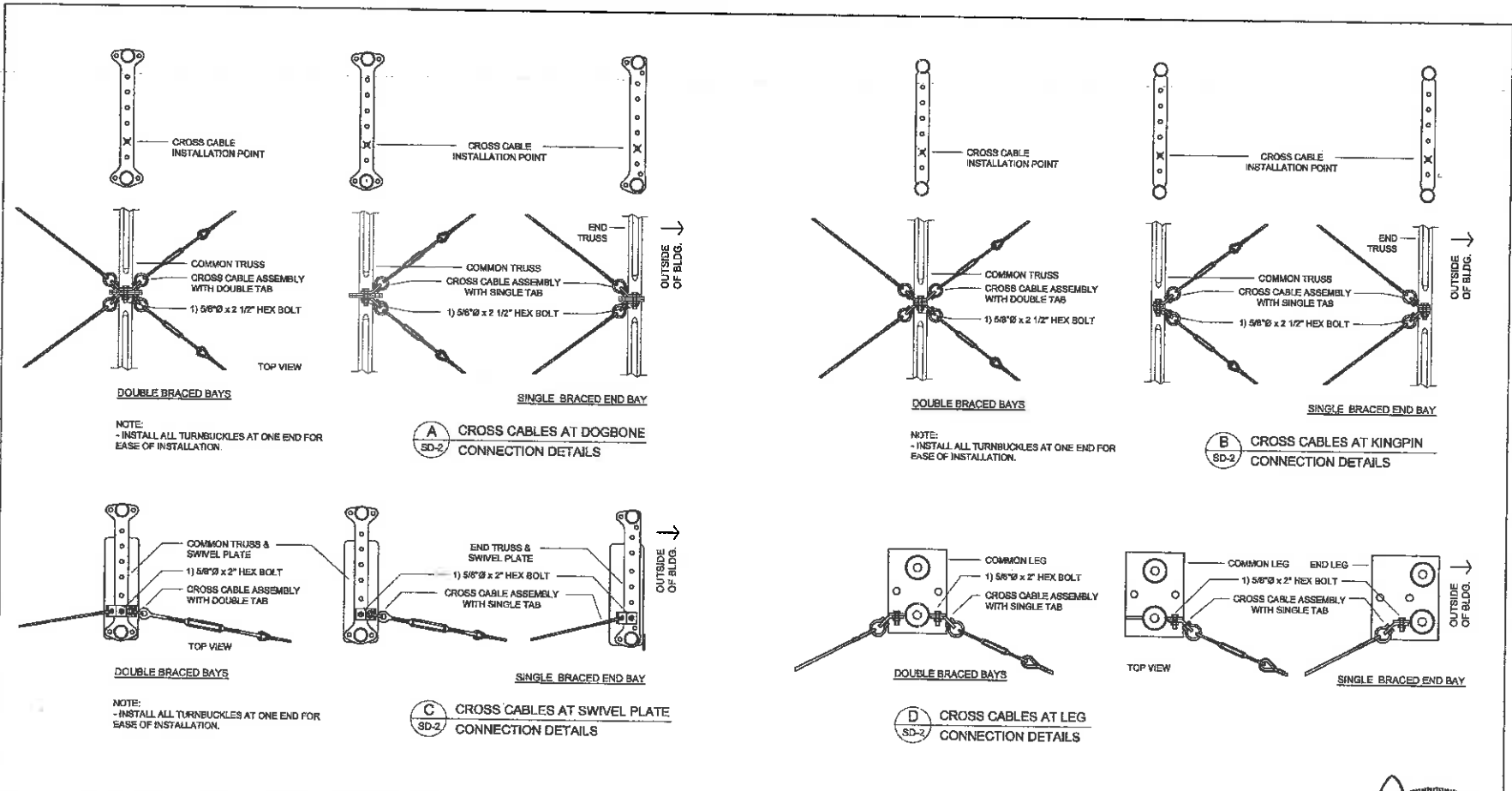
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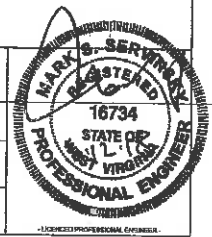
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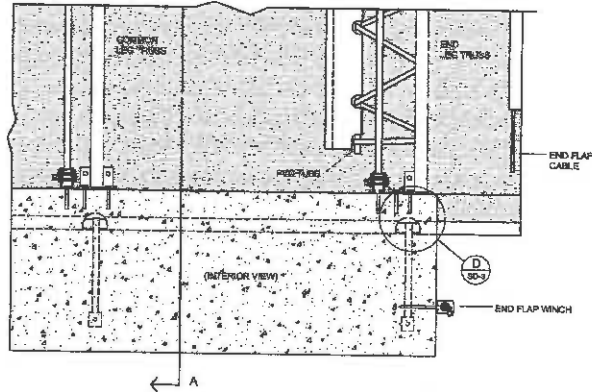
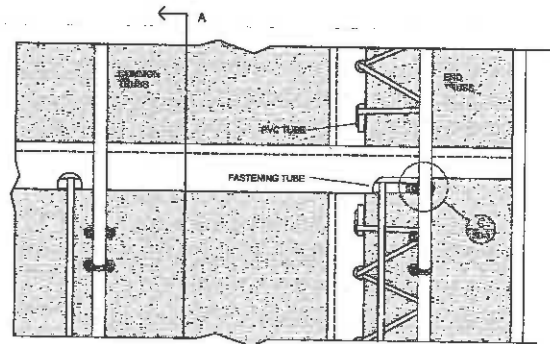
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COVER-ALL BUILDINGS OF WEST VIRGINIA
812 N. OHIO AVE.
CLARKSBURG, WV 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
SHADY SPRINGS, WV 25918

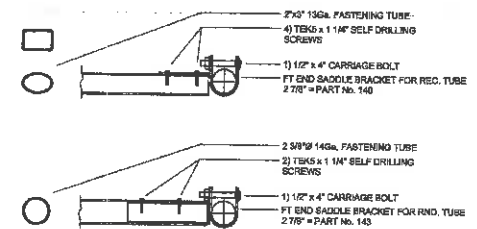
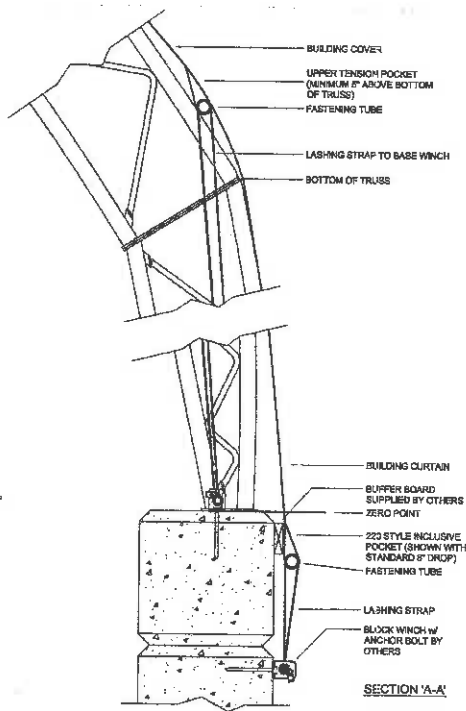
PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

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| WIDTH-STEEL-FAB-HSS-HSDROP: 72-420-220-18-0 | SHEET NO.: SD-2 |
| | PAGE NO.: 009 / 12 |

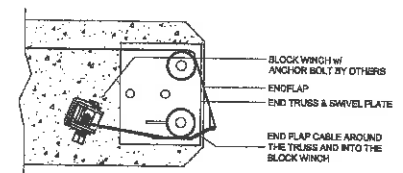




A 220/420 STANDARD COVER CONNECTION DETAIL
SD-3

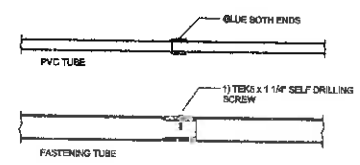


C FASTENING TUBE SADDLE CONNECTION DETAILS
SD-3



NOTE: END FLAP WINCH CAN ALSO BE INSTALLED ON FRONT FACE OF FOLKHOFF AS SHOWN IN A / SD-3.

D END FLAP CABLE & WINCH CONNECTION DETAIL
SD-3



E PVC / FASTENING TUBE CONNECTION DETAILS
SD-3



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CLARKSBURG, WV.26301

CUSTOMER:
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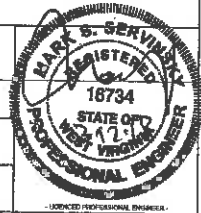
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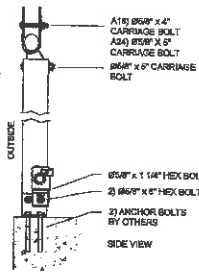
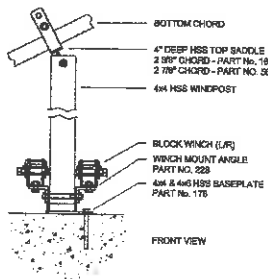
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PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

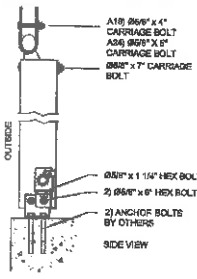
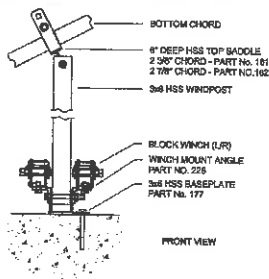
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SO-5910
WIDTH-S STEEL-FAB-HSS-ISS-DROP:
72-420-220-18-0

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STANDARD DETAILS
SHEET NO.:
SD-3
PAGE NO.:
010 / 12

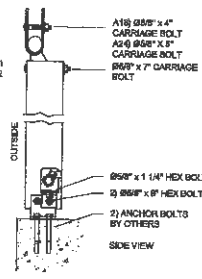
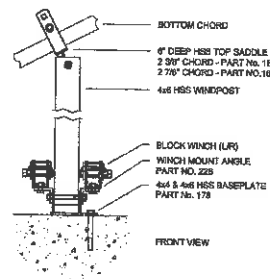




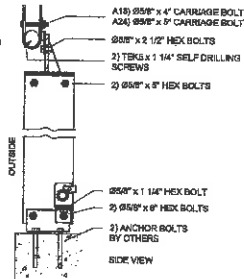
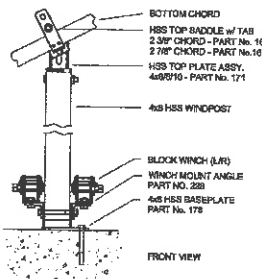
A 4x4 HSS WINDPOST
ED-1 CONNECTION DETAILS



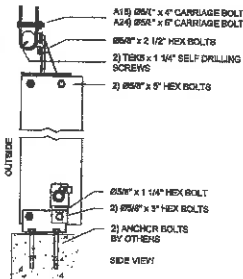
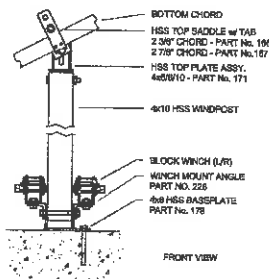
B 3x8 HSS WINDPOST
ED-1 CONNECTION DETAILS



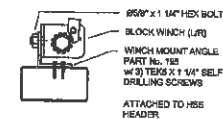
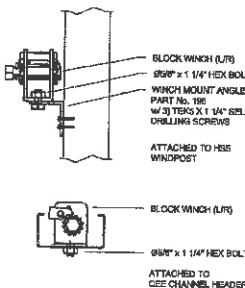
C 4x8 HSS WINDPOST
ED-1 CONNECTION DETAILS



D 4x8 HSS WINDPOST
ED-1 CONNECTION DETAILS



E 4x10 HSS WINDPOST
ED-1 CONNECTION DETAILS



F VARIOUS BLOCK WINCH
ED-1 CONNECTION DETAILS



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812 N. OHIO AVE.
CLARKSBURG, WV. 26301

CUSTOMER:
WVDOH
200 SAMAITAN DRIVE
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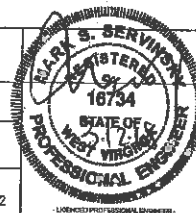
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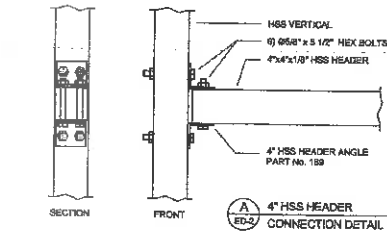
PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' x 10' oc

ORDER ID:
30-5910
WIDTH-STEEL-FAB-HSS-HSSCROP:
72-420-220-18-0

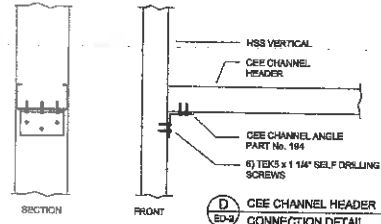
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ED-1

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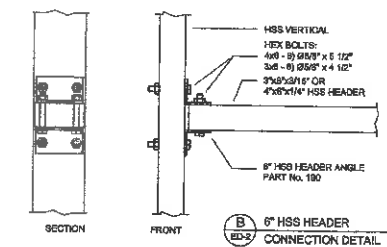




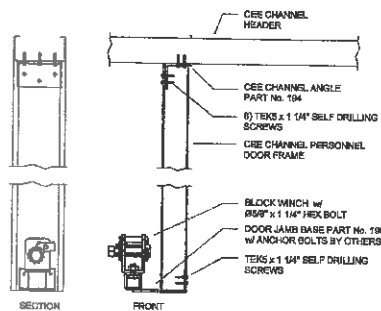
A
ED-2
4" HSS HEADER
CONNECTION DETAIL



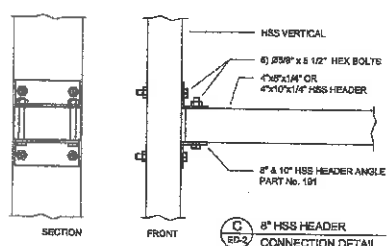
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ED-3
CEE CHANNEL HEADER
CONNECTION DETAIL



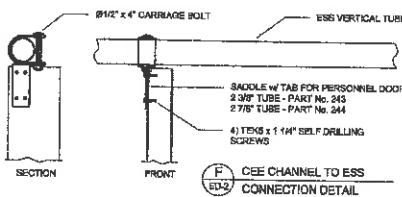
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ED-2
6" HSS HEADER
CONNECTION DETAIL



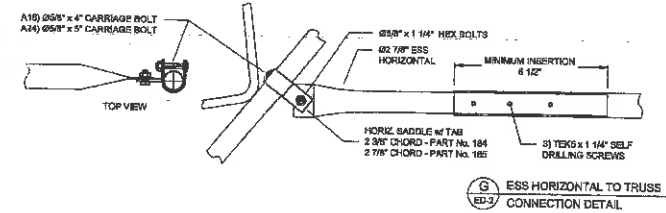
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ED-3
CEE CHANNEL MAN DOOR
CONNECTION DETAILS



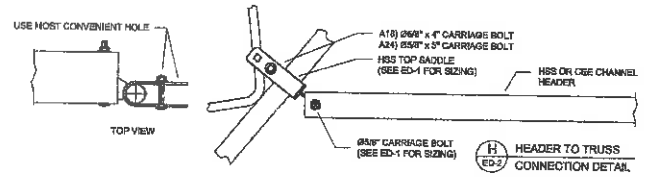
C
ED-2
8" HSS HEADER
CONNECTION DETAIL



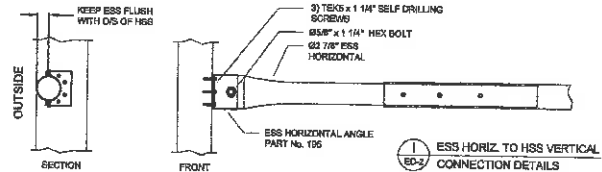
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ED-2
CEE CHANNEL TO ESS
CONNECTION DETAIL



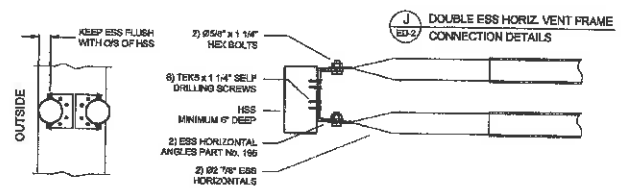
G
ED-2
ESS HORIZONTAL TO TRUSS
CONNECTION DETAIL



H
ED-2
HEADER TO TRUSS
CONNECTION DETAIL



I
ED-2
ESS HORIZ TO HSS VERTICAL
CONNECTION DETAILS



J
ED-2
DOUBLE ESS HORIZ VENT FRAME
CONNECTION DETAILS



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CUSTOMER:
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200 SAMAFITAN DRIVE
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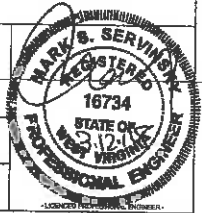
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PROJECT:
ATLAS 24
72' x 140' - 420 GM
12' & 10' oc

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72-420-220-18-0

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SHEET NO.:
ED-2
PAGE NO.:
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BRITESPAN
BUILDING SYSTEMS INC.

Britespan™ Building Systems

Fabric Building Buyer's Guide



About Britespan™ Building Systems

Britespan Building Systems Inc. offers steel framed, fabric covered buildings, as temporary, permanent and portable solutions for a wide range of applications in every industry. Your building is a major investment and you take it seriously; so do we. Our vision is not just about buildings, it's about providing innovative building solutions to meet all of your needs. Combined with our extensive dealer network, we offer the most expertise and experience in the industry. Customer service and satisfaction are our top priorities. Our outstanding team of employees ensure your project flows smoothly from start to finish.

Why Choose Britespan?

While it is true that a majority of fabric buildings look the same on the outside, the fine details are what makes them different. Britespan Building Systems is a leader in the fabric building industry and strives to provide the best building at the most affordable price.

Fabric Building Buyers Guide

To the untrained eye, most fabric buildings look alike, but are they? Britespan's Fabric Building Buyer's Guide will help you understand how fabric buildings are different from one another even though they look very similar. It will also help educate you on steel trussed tension fabric buildings.

Like anything else, price is a main factor when you make a purchase. Unfortunately, the bitterness of poor quality remains long after the sweetness of low price is forgotten, and often ends up costing you thousands in the long run. Fabric buildings are no different.

Some companies just want to make the sale, and there is no follow up or service when you need it. These companies are low priced and often cut corners to hit their price point, often at the building owner's expense. There are also many situations where engineering is

not required to erect a building. These companies take advantage of that and rarely follow the requirements of the building code, allowing them to lighten the building and make it "cheap". Unfortunately, a building that does not comply with the building codes is often NOT insurable.

The Fabric Building Buyer's Guide addresses several issues that are normally not discussed when you are looking to purchase a fabric building. It also helps ensure you purchase a fabric building that meets your individual requirements, is safe, minimizes liability, and is insurable.

While it is true that a majority of fabric buildings look the same on the outside, the fine details are what make them different. Britespan Building Systems Inc. is a leader in the fabric building industry and strives to provide the best building at the most affordable price. The value we bring is second to none!



Protect Your Investment

Like the rest of your buildings, you want to make sure your new fabric building is protected by insurance in case something would happen. Some insurance companies have begun excluding or limiting coverage on buildings that do not meet the requirements of the building codes. Some companies may offer insurance, collect premiums for insurance, and then deny claims after a building failure if the building is found to be non-compliant with the building codes. It may also be difficult to get any value for an uninsurable building when it comes to the sale of the property. Britespan works hand in hand with insurance companies to eliminate the worry on their end. This means that your Britespan building will be insured like the rest of your buildings.

Insurability

Britespan Building Systems Inc. was formed on the foundation of providing the best value to its customers. We are not willing to sacrifice top quality product for the sake of price when selling our buildings. That value is what allows us and our customers to sleep at night. Some companies only sell on price while value is an afterthought.

Whether it's a pole barn or fabric building, you are making a substantial investment. Have you ever considered that this investment might not be insurable? Britespan buildings are engineered to comply with the most current building codes. This does mean that there is more steel in our buildings as well as many other important features as seen in the complete Fabric Building Buyer's Guide.

In the end it means that you will be able to insure your investment for years to come. Buying on price alone can potentially cost you substantially more in the future.

Liability

Some building owners may think it is unnecessary for the building to meet the requirements of the building codes if it is for their own personal use. You should seriously consider the matter of liability if someone is injured in any way while in your building.

Warranties & the Company

Warranties provide you with peace of mind that if something happens to your product, the company will be there to stand behind it.

Competitors most common warranty length is usually 15 years. However, Britespan offers a 16 year warranty to it's customers.

We believe in our buildings so much that we actually manufacture our product inside one of our own buildings.

Engineered vs. Designed

Does it really matter? Many manufacturers offer buildings that are "designed" for your area, but they have that disclaimer or small print to follow. Then, when you ask for the building to be engineered, everything changes and the price doubles. How would you feel knowing that they would have sold you a product that is not capable of handling the conditions of your site without consideration for your safety?

Britespan does not work that way. We incorporate all of the critical design factors into our buildings so you do not have to worry about your building's safety.

Before you get a quote on your building we will have made sure to comply with all North American and international building codes for

- wind and snowloads
- thermal factors
- importance categories
- enclosure categories
- exposure factors

This means that the engineered Britespan building you are quoted up front will withstand the conditions of the site to which it has been engineered without all the surprise price increases.



This building was "designed" just not to the correct loading for the area.



This building was engineered to the correct requirements of the area. Can you see the difference?

Is All Galvanizing the Same?

There are two different types of galvanized pipe: in-line (triple coat/Gatorshield or pre-galvanized) and post production hot dipped galvanized. While both use zinc coating, the application is the most critical part.

In-line galvanized pipe is rolled through a waterfall of zinc and the pipe is coated on the outside, painted on the inside, and is then sent out to be manufactured. The pipe is bent, welded into trusses, and shipped out. Unfortunately, the welding of the trusses burns off the paint on the inside of the pipe, leaving it unprotected and susceptible to rust before it ever gets erected.

Britespan applies hot dipped galvanizing to all of their trusses post production (after all fabrication is complete),

which uses an entirely different process to ensure lifelong corrosion protection and a much longer service life.

We start with untreated black structural steel. We bend and weld the raw steel into our trusses. Holes are drilled into the pipe to ensure the galvanizing reaches every surface. After that, the trusses are submerged in a bath of molten zinc where they receive a coating on every surface inside and out that is three times thicker than the coating on the outside of in-line galvanized pipe. This process means that your building will offer a service life that is approximately three times longer than the in-line galvanized alternative.



In-Line pipe after welding.

In-Line pipe trusses before the building is erected.

In-Line pipe trusses, 6 year old salt building.

Trusses being hot dip galvanized.

Britespan's post production hot dipped galvanized.

The Difference Between Trusses

Truss Weight

Many companies claim that they use as much as 30% more steel in their buildings. The question is, 30% more than what? In order to exceed required loading, Britespan has some of the heaviest trusses in the industry. For example, our 42' truss weighs 680 lbs, where as some of our competitors are tipping the scale around 360 lbs. Your building is not something you want to be lightweight.



Truss Depth

Geometry plays a very important role in the structural integrity of a building. The deeper the truss the more rigid it will be. Britespan's trusses are commonly built deeper than our competitors. This allows us to adhere to the strictest building code and provides superior longevity in diverse conditions.



Britespan's trusses start at 18" of depth.

Many competitors trusses are 12" deep for the same span.

Many competitors choose to minimize this truss depth for the sake of price. This leaves the consumer wide open to all of the liability should there be a failure in the building.

As you look into purchasing a fabric building or a pole barn that is not compliant to the building codes, make sure you are willing to pay the replacement cost of the building out of your pocket should adverse conditions arise.

Round vs. Square Tubing

Pound for pound, round tubing is stronger than square. Britespan buildings utilize round tube on their arches as it dramatically reduces cover friction and provides a stronger truss that is needed to comply with stringent building codes. Cover friction is where the cover rests against the steel of the truss. The picture to the right illustrates this point as the rather sharp edge of the square tube acts like a knife and cuts through the fabric when it is placed under proper tension.



Round tube allows for proper tensioning without cover failure.

The abrupt edge of square tube often causes cover failures.

✕ Purlins & Cross Cables

Solid Mounted Purlins

Purlins are a section of pipe that keep the trusses spread apart and are responsible for withstanding the wind load against the ends of the building. Many companies use small diameter light gauge purlins. This often results in the building racking or collapsing in severe wind conditions. These companies may also use a saddle bracket and fork connection that wraps around the truss cord for attachment. This allows for rotation around the cord and offers less rigidity in the connection causing the building to buckle under load.

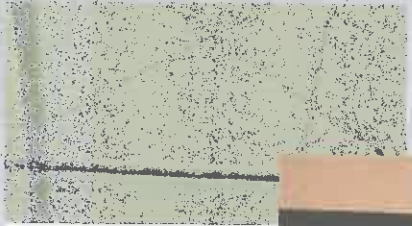


Britespan's standard double bolted solid purlin mount.

A competitor's fork style purlin mount offers no structural stability

Purlin Construction

The key to ensuring your fabric building will last for a long time is to make sure that the steel remains as rigid as possible. Cover failures occur when the fabric rubs against the steel trusses. Purlins play a critical role in the rigidity of a building. Britespan buildings use a dedicated large diameter one piece solid purlin. This system provides unparalleled strength and durability in high wind areas.



Britespan's standard one piece purlin.

A competitor's one size fits all

Cross Cables

The strength of a building is dependent on many factors. While the amount of steel in the building is the biggest factor, you also need to look at the building's rigidity. The less the building moves the longer the fabric will last. Cross cables in a building dramatically reduce the deflection of the building under load. Well, in theory, that is. Cables must be secure and tight to achieve this benefit.

Britespan uses the best quality cables that are solid mounted to structural truss members that are specifically designed to do the job, and they utilize turnbuckles for easy tensioning.

Many manufacturers overlook this element and weave their cables through many bays and wrap them around the web of the truss, which is quite often the lightest part of the truss. The cables can slide and move and require maintenance to ensure their tension at all times. This results in buildings that move more in the wind, reducing the life of the fabric.



Britespan's standard double bolted solid purlin mount.

A competitor's way of attaching critical structural cables

📏 Tensioning The Covers

Winch Blocks or Ratchet Straps

Ensuring your cover stays tight is the most important factor in the longevity of your fabric. Britespan utilizes the cleanest and strongest tensioning system. Our 10,000 lb. winch blocks hold all of our covers on from 10' wide and up.

In order to be able to sell you a cheap building, many of our competitors will provide you with their standard ratchet strap fastening system. While this is a cost effective alternative up front, the cost of replacing your cover is not. Make sure your fastening system is up for the job!



Britespan's standard 10,000lb winch block.

A competitor's ratchet strap mounting system

Tension Pipe

The tension pipe is a pipe that runs parallel with your cover and is attached to the winch blocks. It allows you to put tension on your cover, which is required for longevity and warranty. A loose cover will rapidly result in cover damage that is not covered by the manufacturer's warranty. Some companies use tension pipe that is as small as 1 1/2" in diameter. When you try to tension a cover with small pipe, the pipe deflects between the winches. This makes it impossible to get the proper tension on the cover between the trusses without over tensioning directly over the trusses. This causes the fabric to tear due to excessive tension.

Britespan only uses large diameter or oval heavy gauge material for fastening pipe. This allows for even tensioning of the cover without fear of an over tension situation over the trusses. This means your cover should last 20-25 years under normal circumstances.



Britespan's oval tension pipe to maintain proper cover tension.

A competitor's inadequate tension pipe means trouble

📍 Dealer Network

Unlike some companies, Britespan believes that doing business face to face is the best practice. Our authorized dealers are experts in the industry. They can come to your site and see what challenges you may face prior to selling you a building, which will help eliminate unforeseen surprises after the building gets delivered. Britespan has the most experienced Dealer Network in the industry that can help you with every aspect of your project.

Have the personalized service from an experienced Britespan dealer or to be just another number to a mass marketer?

Find your LOCAL Britespan representative today!

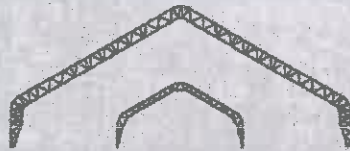
Building Series

Britespan has been in the fabric building industry since 1994, offering the widest product line available today. We design, engineer and manufacture each product line in-house.

Our structures are engineered to be portable, temporary or permanent, with rapid installs even in remote areas.



Atlas Series
24' - 108' wide



Genesis Series
80' - 200' wide



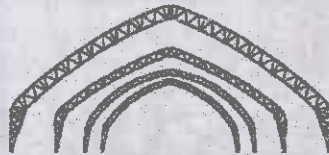
Easy Access Series
38' - 67' wide



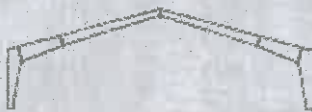
Epic Series
80' - 120' wide



Accent Series
26' - 32' wide



Apex Series
53' - 100' wide



Rigid Beam Series
Up to 300' wide

Custom eaves, heights and slopes available

Custom Fabric Colours Available

Contact us for details on our full line of colour options or to request fabric samples.

Why Britespan?



HOT DIP GALVANIZING
Post-weld hot dip galvanizing bonds to steel to provide lifelong corrosion resistance from the inside out.



VENTILATION
Large volumes of interior air space give you superior air quality and ventilation.



CLEARSPAN INTERIOR
With no interior columns, movement throughout the interior is easy for vehicles and equipment.



LIGHT
Naturally bright interiors create comfortable environments and help reduce energy costs.



QUALITY
Constructed from quality North American steel and engineered to comply with the most current building codes.



RETURN ON INVESTMENT
Our structures provide large, bright, secure spaces with reduced operating and maintenance costs.

Britespan buildings can be added onto existing Cover-All Buildings

For more information, call us at
1.800.407.5846 or visit us online.
britespanbuildings.com

BRITESPAN
BUILDING SYSTEMS INC

Nathaniel G. Rohrig

Engineered Tensioned Fabric Buildings

SUMMARY

Seventeen
~~Eleven~~ years experience in the Engineered Tension Fabric Building business, performed construction management and general construction roles. Experienced in construction, renovation, and cost estimating within commercial and industrial environments. Recognized for well-developed project management skills, including the use of computer technology to track job progress, control project costs, and schedule operational tasks that enable project completion on time and under budget. Consistently deliver quality and excellence in workmanship. Excellent safety record.

SKILLS

- Project Management
- Client Focus
- Tools and Techniques
- On-time Completion
- Cost Estimation
- Communication Skills
- MS Project
- MS Excel
- Safety Emphasis
- Materials Expertise
- Apprentice Mentoring
- Builder's Assistant

EXPERIENCE

Cover-All Buildings of WV, Inc. Bridgeport, WV 2000 to Present
Vice President

Negotiated terms for new construction projects, bidding private and publicly funded projects. Managed completion of over 400 projects in West Virginia, Pennsylvania, Tennessee and North Dakota. Supervised crews of up to 25 foundation and general laborer personnel. Secured all required permit approvals.

- Progressive use of technology, including use of computer models to prepare detailed bids for client review.
- Estimated project costs and used actual costs to refine computerized estimating models.
- Performed follow-up customer satisfaction reviews to identify opportunities to improve services or procedures.
- Received numerous accolades from clients for superior workmanship.

R & T Enterprises, Inc., Bridgeport, WV 2000 to Present
Vice President

~~Administered strategic planning, pricing, sales analysis, consumer research, new product introduction process, and product usage forecasting. Built market share in all business segments. Analyzed economic conditions, business trends, industry trends, and potential markets. Assisted in developing and implementing company policies and procedures. Developed and implemented new compensation plans for the sales forces that reduced costs without affecting sales. Planned logistics of sales, production, sourcing, and inventories to ensure efficient production operations and profitable use of resources. Facilitated joint venture projects.~~

R & T Enterprises, Inc., Bridgeport, WV 1992 to 2000
Secretary/Treasurer

Coordinated all general record keeping. Additional duties included purchase and setup of PC systems, hardware, and software, company-wide network and troubleshooting, and operation / purchasing of all office equipment. Managed all general accounting functions, track banking transactions, made daily deposits, managed petty cash, track all financial records and reporting, and created monthly projections and end-of-month summaries. Oversaw payroll, annual budget, acquisitions, and accounts/payable.

The Prudential, Morgantown, WV

1996 to 1996

Insurance and Investment sales

Produced leading sales results with a diversified insurance brokerage firm. Achieved sales success through an informational, knowledgeable sales approach, and a focus on customer satisfaction, striving to "educate" the consumer, building positive professional relationships through strong interaction skills and sound investment advice. Marketed a complete line of equity-based products to individuals and groups throughout region. Successfully marketed and sold a full line of products for the company. Independently managed the entire sales cycle, from initial client consultation, product presentation, pricing and contract negotiation, to the final sales closing. Conferred with clients and developed proposals and programs to meet their financial needs, goals, and objectives. Specialized in providing individualized services for life insurance, upgrading existing policies, servicing existing accounts, making presentations, and initiating the claims process for clientele.

Pete Dye Golf Club, Bridgeport, WV

1992 to 1992

General Labor

Inspected work in progress to ensure that work conforms to contract specifications and adheres to established work schedules. Coordinated labor and equipment resources ensuring all jobs were completed accurately, efficiently, and in a quality manner. Experienced in handling simultaneous projects and meeting deadlines effectively. Planned construction procedures, specifications, work schedules, and material needs. Worked as a liaison between the property managers and owners. Worked with subcontractors, architects, engineers, and owners. Simultaneously managed multiple job responsibilities.

EDUCATION

Bachelor of Science (Finance) 1996

West Virginia University Morgantown, WV

RU88X-6 400

MEMBRANE STRUCTURE FABRIC WITH ARMORKOTE™

INTERTAPE POLYMER GROUP® TECHNICAL DATA SHEET

DESCRIPTION

NovaShield® RU88X-6 400 is a heavyweight fabric for applications requiring UV stability, such as membrane structures and alternate daily landfill covers. The scrim is produced in a special weaving pattern to enhance flatness, abrasion resistance, and tear properties. The proprietary coating is used to enhance abrasion resistance, flex resistance, seam strength, UV resistance and longevity.

FABRIC SPECIFICATIONS

Weave: Woven clear HDPE scrim
Coating: LDPE, 4 mil average each side (95 g/m²/side)
Color: Natural (clear), white, blue, green, red, beige and other colors available upon request
Weight: 12 oz/yd² (407g/m²) +/- 5 %
Thickness: 23 mil (0.59 mm) ASTM D1777

ROLL SPECIFICATIONS

Cores: 4 inch I.D. or 5 inch I.D. available
Width: Up to 144 inches (-0, +0.5) as ordered
Length: Minimum 250 yds/roll; up to 1000 yds/roll

These values are typical data and are not intended as limiting specifications.



100 Paramount Drive, Suite 300 | Sarasota, FL 34232 | USA
Customer Service: 800.565.2000
www.itape.com | info@itape.com

PERFORMANCE PROPERTIES

The following data are typical values based on ASTM standard tests. This data should not be considered specification.

| | |
|---|--|
| Grab Tensile ASTM D5034 | Warp 370 lb 1664 N / Weft 345 lb 1532 N |
| Strip Tensile (N/5cm) ASTM D5035 | Warp 250 lb/in (2220)/Weft 235 lb/in (2086) |
| Tongue Tear ASTM D2261 | Warp 110 lb 488 N / Weft 100 lb 444 N |
| Trapezoidal Tear ASTM D4533 | Warp 100 lb 444 N / Weft 90 lb 400 N |
| Mullen Burst ASTM D3786 | 650 psi / 4428 kPa |
| Accelerated UV Weathering¹ ASTM G154 | >90 % strength retention after 2000 hrs exposure @ 0.77 W/m ² /nm, or 1200 hrs exposure @ 1.35 W/m ² /nm |
| Accelerated Natural Weathering ASTM G90 | >80 % strength retention after 5 Florida Standard Years ² |
| Low Temperature Bend ASTM D2136 | -60°C |

¹ Q.U.V [A-340 Lamps]; 8 hrs UV @ 60°C; 4hrs condensation @ 50°C ² 1333 MJ

FR PERFORMANCE

This product meets the requirements of ASTM E84-00a (Class 1).

While we believe them to be reliable, the statements and information herein are only for general guidance and are not warrants or guarantees for accuracy and completeness. The user must, by test or otherwise, determine suitability for this purpose. There is no warranty of fitness for a particular purpose. Our standard term and conditions of sale apply exclusively to all orders, and all liability for damages of any kind, including consequential, exceeding purchase price is excluded. No one is authorized by us to make oral warranties. We reserve the right to make changes without notice or obligation in our products and publications.

EFFECTIVE: 3/16



NovaShield
BRAND

BRITESPAN

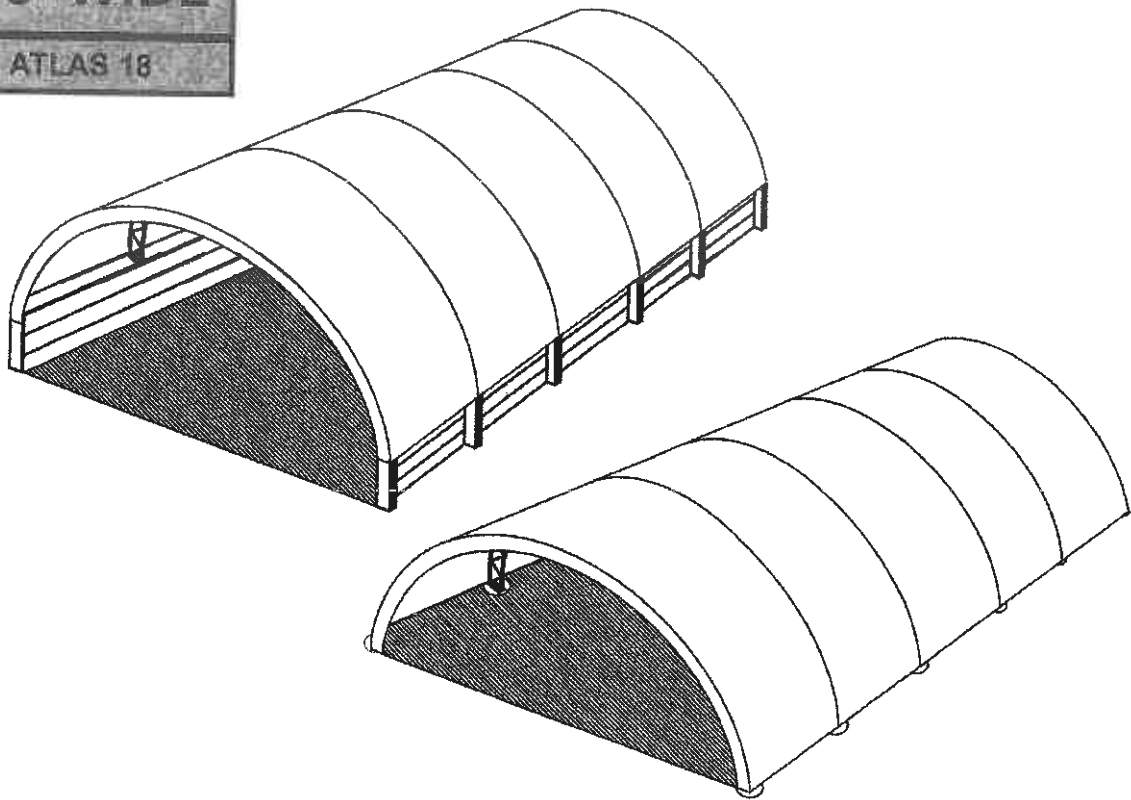
BUILDING SYSTEMS INC

Owner / Installation Manual

Includes Warranty and Registration

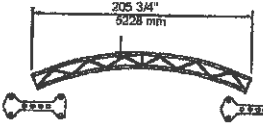
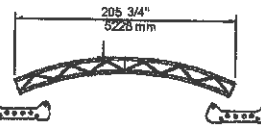
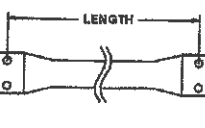

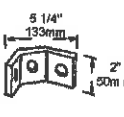
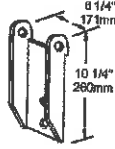
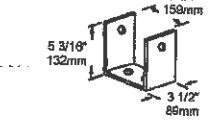
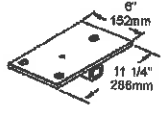
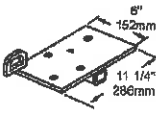
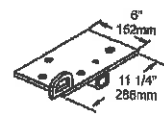
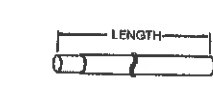

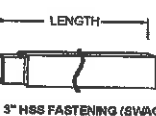
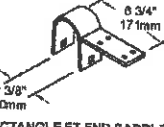
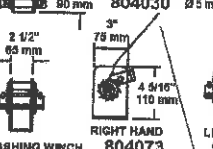
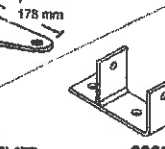
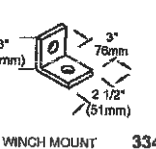
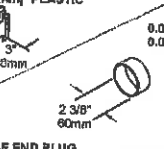


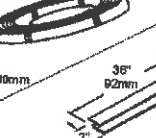
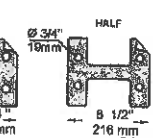





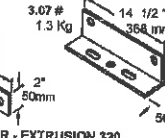
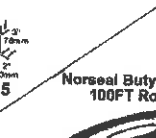

40' WIDE

ATLAS 18



**SEPARATE MANUALS
Are Supplied for
END ENCLOSURES**

Building Components

|  <p>110.55 # 50.15 kg</p> <p>205 3/4" 5228 mm</p> <p>TRUSS-A18 40' COMMON 30003021</p> |  <p>109.55 # 44.74 kg</p> <p>205 3/4" 5228 mm</p> <p>TRUSS-A18 40' END 30003026</p> |  <p>FURLIN - 14 GA</p> | <table border="1"> <thead> <tr> <th>DIA.</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>PA3.500 - 16S</td> <td>16'0" / 4877mm</td> <td>49.14 # / 22.29kg</td> </tr> <tr> <td>PA2.875 - 16S</td> <td>18'0" / 4877mm</td> <td>40.00 # / 18.14kg</td> </tr> <tr> <td>PA2.875 - 14S</td> <td>14'0" / 4267mm</td> <td>35.25 # / 16.99kg</td> </tr> <tr> <td>PA2.875 - 12S</td> <td>12'0" / 3658mm</td> <td>30.19 # / 13.69kg</td> </tr> <tr> <td>PA2.875 - 10S</td> <td>10'0" / 3048mm</td> <td>25.34 # / 11.49kg</td> </tr> <tr> <td>PA2.875 - 8S</td> <td>8'0" / 2439mm</td> <td>20.28 # / 9.20kg</td> </tr> <tr> <td>PA2.875 - 6S</td> <td>6'0" / 1829mm</td> <td>15.43 # / 7.00kg</td> </tr> <tr> <td>PA2.875 - 5S</td> <td>5'0" / 1524mm</td> <td>12.95 # / 5.87kg</td> </tr> </tbody> </table> <p>NOTE: Length = Arch Spacing</p> | DIA. | LENGTH | WEIGHT | PA3.500 - 16S | 16'0" / 4877mm | 49.14 # / 22.29kg | PA2.875 - 16S | 18'0" / 4877mm | 40.00 # / 18.14kg | PA2.875 - 14S | 14'0" / 4267mm | 35.25 # / 16.99kg | PA2.875 - 12S | 12'0" / 3658mm | 30.19 # / 13.69kg | PA2.875 - 10S | 10'0" / 3048mm | 25.34 # / 11.49kg | PA2.875 - 8S | 8'0" / 2439mm | 20.28 # / 9.20kg | PA2.875 - 6S | 6'0" / 1829mm | 15.43 # / 7.00kg | PA2.875 - 5S | 5'0" / 1524mm | 12.95 # / 5.87kg |
|---|---|---|--|--------|---------------|---------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|---------------|------------------|-----------------|---|---|--------------|---------------|------------------|
| DIA. | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PA2.875 - 16S | 18'0" / 4877mm | 40.00 # / 18.14kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 14S | 14'0" / 4267mm | 35.25 # / 16.99kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 12S | 12'0" / 3658mm | 30.19 # / 13.69kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 10S | 10'0" / 3048mm | 25.34 # / 11.49kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 8S | 8'0" / 2439mm | 20.28 # / 9.20kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 6S | 6'0" / 1829mm | 15.43 # / 7.00kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 5S | 5'0" / 1524mm | 12.95 # / 5.87kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>CROSS CABLE \varnothing 5/16" / 8mm</p> | <table border="1"> <thead> <tr> <th>ARCH SPACING</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>16 - 861222-9</td> <td>222" / 5639mm</td> <td>6.56 # / 2.98kg</td> </tr> <tr> <td>14 - 861201-9</td> <td>201" / 5105mm</td> <td>6.25 # / 2.84kg</td> </tr> <tr> <td>12 - 861180-9</td> <td>180" / 4572mm</td> <td>5.95 # / 2.70kg</td> </tr> <tr> <td>10 - 861163-9</td> <td>163" / 4140mm</td> <td>5.71 # / 2.60kg</td> </tr> <tr> <td>8 - 861144-9</td> <td>144" / 3658mm</td> <td>5.43 # / 2.46kg</td> </tr> <tr> <td>6 - 861128-9</td> <td>128" / 3251mm</td> <td>5.20 # / 2.38kg</td> </tr> <tr> <td>5 - 861122-9</td> <td>122" / 3099mm</td> <td>5.12 # / 2.32kg</td> </tr> </tbody> </table> | ARCH SPACING | LENGTH | WEIGHT | 16 - 861222-9 | 222" / 5639mm | 6.56 # / 2.98kg | 14 - 861201-9 | 201" / 5105mm | 6.25 # / 2.84kg | 12 - 861180-9 | 180" / 4572mm | 5.95 # / 2.70kg | 10 - 861163-9 | 163" / 4140mm | 5.71 # / 2.60kg | 8 - 861144-9 | 144" / 3658mm | 5.43 # / 2.46kg | 6 - 861128-9 | 128" / 3251mm | 5.20 # / 2.38kg | 5 - 861122-9 | 122" / 3099mm | 5.12 # / 2.32kg |  <p>BRACKET - CROSS CABLE DOUBLE TAB 3/8" x 2" [10 x 50mm] 30012350</p> |  <p>PLATE - WALL BRACKET 1/4" [6mm] PLATE 30003430</p> | | | |
| ARCH SPACING | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 - 861222-9 | 222" / 5639mm | 6.56 # / 2.98kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 - 861201-9 | 201" / 5105mm | 6.25 # / 2.84kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 - 861180-9 | 180" / 4572mm | 5.95 # / 2.70kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 - 861163-9 | 163" / 4140mm | 5.71 # / 2.60kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 - 861144-9 | 144" / 3658mm | 5.43 # / 2.46kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 - 861128-9 | 128" / 3251mm | 5.20 # / 2.38kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 - 861122-9 | 122" / 3099mm | 5.12 # / 2.32kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>BOOT COMMON GROUND MOUNT 3/8" [10mm] PLATE 30003350</p> |  <p>PLATE - SWIVEL COMMON A18 3/8" [10mm] 30003355</p> |  <p>PLATE - SWIVEL LEFT END A18 3/8" [10mm] 30003356</p> |  <p>PLATE - SWIVEL RIGHT END A18 3/8" [10mm] 30003361</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>FASTENING TUBE \varnothing 2.375 [60mm] 14 GA FT2.375-245S</p> |  <p>BRACKET-ROUND FT END SADDLE 2 3/8" TUBE 30011238 2 7/8" TUBE 30011278</p> |  <p>TUBE - 2" x 3" HSS FASTENING (SWAGED) 14 GA 58 x 78mm</p> |  <p>BRACKET-RECTANGLE FT END SADDLE 2" (50mm) TUBE 30010200 2 3/8" (60mm) TUBE 30010238 2 7/8" (73mm) TUBE 30010278</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>LASHING WINCH 804073</p> |  <p>BRACKET-WINCH MOUNT 320 END 3 3/4" 95 mm 7" 178 mm 30012340</p> |  <p>BRACKET - WINCH MOUNT 2 X 3 X 2 X 3/8" 33400190</p> |  <p>FASTENING TUBE END PLUG 2" x 3" [50 x 76mm] PLASTIC 844191</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>CABLE - 40 FLAP - 60'5" [18415mm] 870701 \varnothing 3/16" [8mm] 810120</p> |  <p>RUBBER FLAP PROTECTOR 890375</p> |  <p>TIE DOWN STRAP 9" [193mm] LONG 820036</p> |  <p>FULL COUPLER PROTECTOR A18 830675 HALF COUPLER PROTECTOR A18 830850</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>COVER</p> |  <p>HEX BOLT 5/8" x 2" M16 x 50mm 800218 5/8" x 2 1/2" M16 x 65mm 800056 5/8" x 8" M16 x 200mm 800901</p> |  <p>REDI-ROD 5/8" x 12" 0.83 # M18" x 380mm 0.38 kg 800400</p> |  <p>1/4" BENDER WASHER 6mm 802000 5/16" PIPE CLIP 8mm 802005 3/8" MAG CHUCK DRIVER 10mm 804100 PVC GLUE 810119</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Buildings Over 144' / 44M</p>  <p>EXTRUSION 335" [853mm] 850336</p> |  <p>COVER JOINER - EXTRUSION - 220 30012220</p> |  <p>COVER JOINER - END FLAP (2X18") 300012225</p> |  <p>Norseal Butyl Tape 100FT Roll 804510</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |



IMPORTANT – READ MANUAL FIRST

Improper Site Preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

MAINTENANCE SCHEDULE

Failure to comply with this maintenance schedule will invalidate the warranty.

A. INSTALLATION ADJUSTMENT

1. The cover of your Atlas building may relax after installation. The fabric is designed to be under tension at all times to prevent wear and ensure a long life. Adjust the cover over the entire building to remove as many wrinkles and creases and bagging as possible. For most buildings 35 - 45 ft. lbs [48 - 60 N.m] of torque provides adequate cover tension. Adjust the end winches until the fastening pipe is level. Re-tension end flaps.

NOTE: Building covers installed during cooler weather tend to relax more than covers installed during warmer weather. If your cover was installed in cooler weather recheck its tightness on the first available warm sunny day.

B. INSTALLATION INSPECTION - 1 WEEK MAINTENANCE

1. Cover - ensure the cover straps are secure and the cover is tensioned. For most buildings 35 - 45 ft. lbs [48 - 60N.m] of torque provides adequate cover tension. Adjust cover tension as required..
2. Belting - check for premature belting wear and ensure tightness.
3. End Flaps - ensure the flaps remain tight and securely fastened.
4. Aprons - ensure the aprons are securely fastened.
5. Cables - ensure the cables are tensioned according to the installation instructions.
6. Steel - Seal all surface penetration marks with a sealant or high zinc content paint.

C. QUARTERLY MAINTENANCE

1. Repeat above "INSTALLATION INSPECTION - 1 WEEK" a minimum of 4 times per year.

D. GENERAL MAINTENANCE

1. **Cover** - Clean with water and non-abrasive soap. Do not use solvents or chemicals. Use caution when using high pressure washers.
2. **Snowfall** - Snow accumulating on the cover could indicate that the cover needs re-tensioning. Remove snow and check tension.
3. Use caution when using heavy equipment or manually clearing away avalanched snow.

E. ACCIDENTAL DAMAGE

Cover: Sharp objects can puncture and damage the cover. Do not attempt to seal or repair with conventional materials. Call your local BRITESPAN representative. They will be able to assess the damage and facilitate replacement or provide a heat-weld service if the cover is repairable.

Structure: Report and document any damage to the steel structure, components or foundation immediately. Have your local BRITESPAN representative inspect the damage and provide a comprehensive evaluation. Perform any temporary or emergency repairs as determined. Replace or repair damaged components as determined.



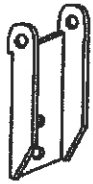
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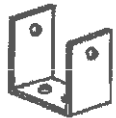
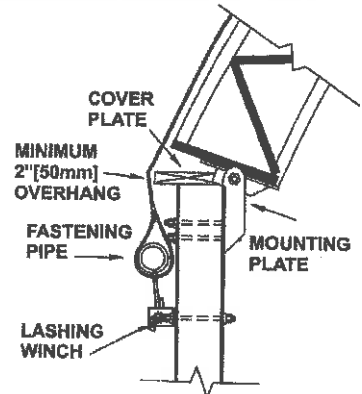
STEP 1

DETERMINE INSTALLATION TYPE

TYPE 220 INSTALLATION

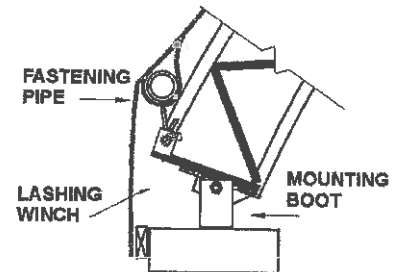


- The mounting plate is attached to the inside of the foundation and secured through the foundation.
- The cover fastening pipe is located below the mounting plate, outside the foundation, and the cover lashing winches attach to the foundation.
- A **minimum 2" [50mm] cover plate overhang is required** to keep the fastening pipe and lashing straps from contacting mounting plate hardware.
- Typically, the cover does not have a finish/seal apron.



TYPE 320 INSTALLATION

- The mounting boot attaches to the top surface of the foundation.
- The cover fastening pipe is located on the arch steel and the cover lashing winches attach to plates attached to the arch coupler plate.
- Typically the cover has an attached finish/seal apron.



Custom buildings may have variations of these two installation types. Check with your Dealer or agent for details.

STEP 2

REQUIRED EQUIPMENT

1. String and string level for alignment.
2. Stakes and tape to mark the post/pile locations.
3. Movable scaffolding or a platform lift.
4. Crane or equivalent to lift arches into the vertical position.
5. Temporary bracing - dimensional lumber or rope.
6. Square level.
7. 2 to 4 lengths of cover pull rope 100' [31M] or longer.
8. Torque wrench.
9. Hacksaw.
10. #10 x 3/4" [#10 x 20mm] round head Philips screws and bit.
11. 13/16" [21mm] - 15/16" [24mm] - 1 1/8" [29mm] wrenches and sockets.
12. **Optional** -A transit (available from a local rental store); power wrench.

TYPE 220 Installation

13. Drill and \varnothing 5/8" [16mm] drill bit to drill through foundation.
14. 3 1/2" [90mm] spiral nails (galvanized) - 6 per post.

REQUIRED FOR BUILDINGS OVER 144'[44M] IN LENGTH

1. Drill - Appendix A
2. Rubber mallet - Appendix A
3. Caulking gun - Appendix B



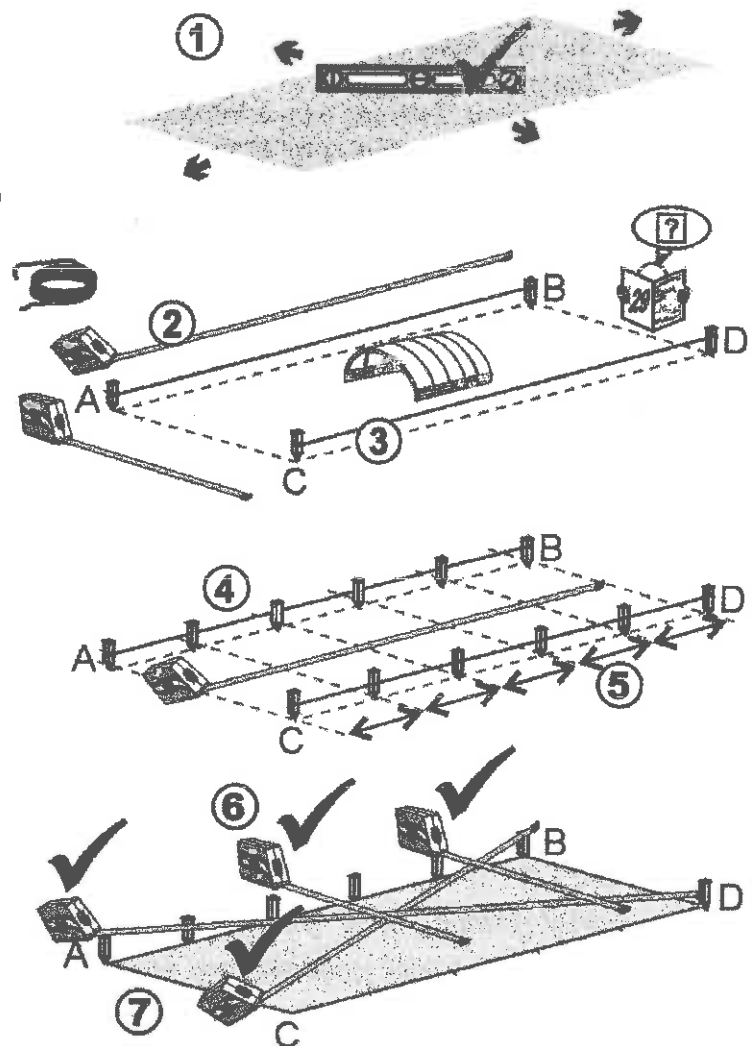
BUILDINGS OVER 144' [44M] IN LENGTH See STEP 37, Page 25

STEP 3

SITE PREPARATION

BRITESPAN BUILDING SYSTEMS IS NOT RESPONSIBLE FOR FOUNDATION DESIGN OR INSTALLATION.

1. Start with a level site.
2. Measure and stake out the location of the corner posts/piles A, B, C and D. Use an accepted method to make the foundation straight and square.
See Squaring A Foundation on Page 33 for assistance.
3. String lines from A to B and from C to D.
4. Measure and stake the arch on-center intervals along the length of the building using a running measurement.
5. Check linear measurements by measuring the distance between each stake. Distance should be equal.
6. Check the width measurements the entire length of the building.
7. Check the square of the foundation by measuring diagonally. Diagonal measurements should be equal.



NOTE: Buildings over 144' [44M] in length have more than one cover. Even with this feature, the foundation continues as a running measurement for the entire length of the building.

STEP 4

CRITICAL FOUNDATION PLANNING

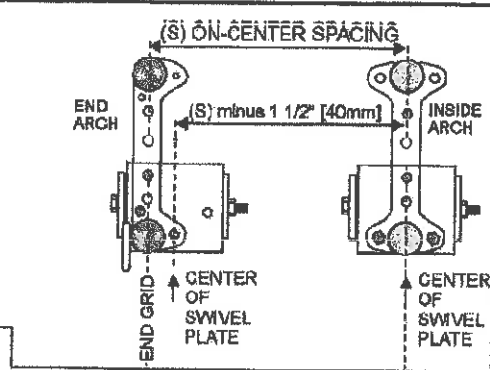
In order to maintain the correct on-center arch spacing YOU MUST INSTALL the foundation so that the end mounting brackets and boots can be safely attached 1 1/2" [40mm] inside the end grid line.

TYPE 220 and TYPE 320

End arches have half coupler plates that bolt 1 1/2" [40mm] off-center on a 5 hole end swivel plate.

The inside arches have full coupler plates and bolt to the center of the 4 hole swivel plates.

On-center arch spacing must be maintained when planning the foundation.



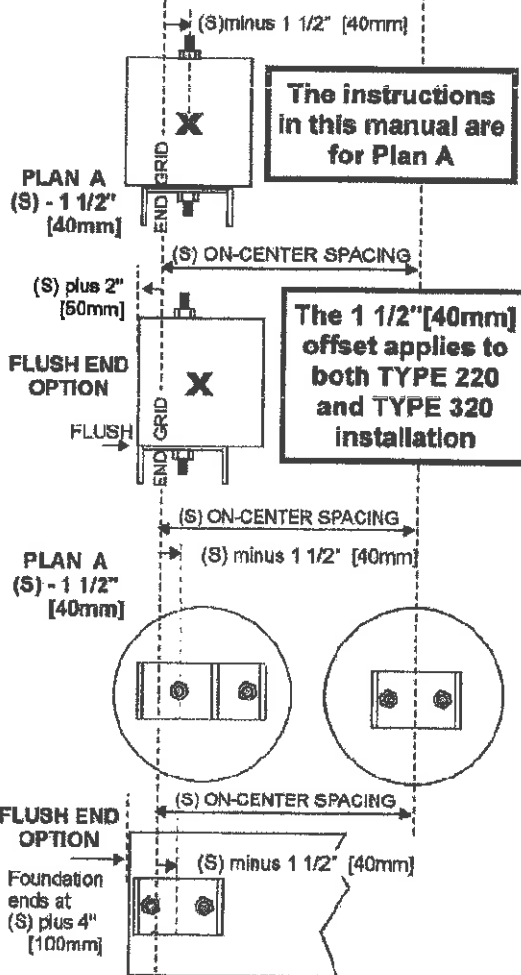
TYPE 220 INSTALLATION

PLAN A - RECOMMENDED

When you install the end posts with their centers aligned 1 1/2" [40mm] inside the end grid line the mounting bracket and swivel plate center will be positioned in the center of the post and the correct on-center arch spacing is maintained.

FLUSH END OPTION

To finish the end of the building steel flush to the outside edge of the end post INSTALL THE EDGE OF THE POST PLUS 2" [50mm] OUTSIDE the end grid line. The mounting bracket will be positioned flush to the edge of the post regardless of post size and the correct on-center arch spacing is maintained.



TYPE 320 INSTALLATION

PLAN A - RECOMMENDED

When you install the end piles with their centers aligned 1 1/2" [40mm] inside the end grid line the mounting boot and swivel plate center will be positioned in the center of the pile and the correct on-center arch spacing is maintained.

FLUSH END OPTION

To reduce the corner foundation protrusion, design the foundation so that the mounting boot can be installed as close to the edge of the foundation as allowable by the foundation's construction.

Example - Depending on anchor type - terminate the foundation at minimum (S) PLUS 4" [100mm] OUTSIDE the end grid line. Always check with a foundation engineer for appropriate anchor types and their installation requirements.

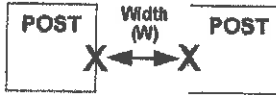
ALWAYS MAINTAIN the correct on-center arch spacing.

TYPE 320 INSTALLATION - Go to Page 11

TYPE 220 INSTALLATION



Inside-to-Inside Measurements

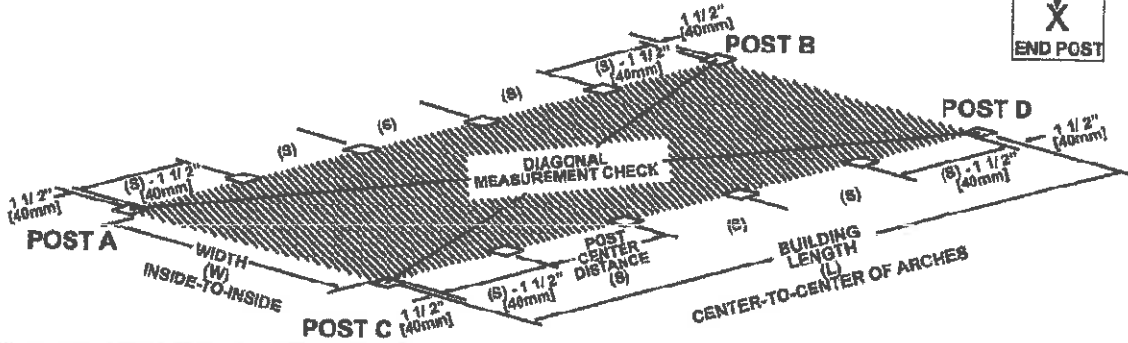


Center-to-Center Measurements

Building Length (L)

Post Distance (S)

EXCEPT END POSTS
Post Distance (S) minus 1 1/2" [40mm]



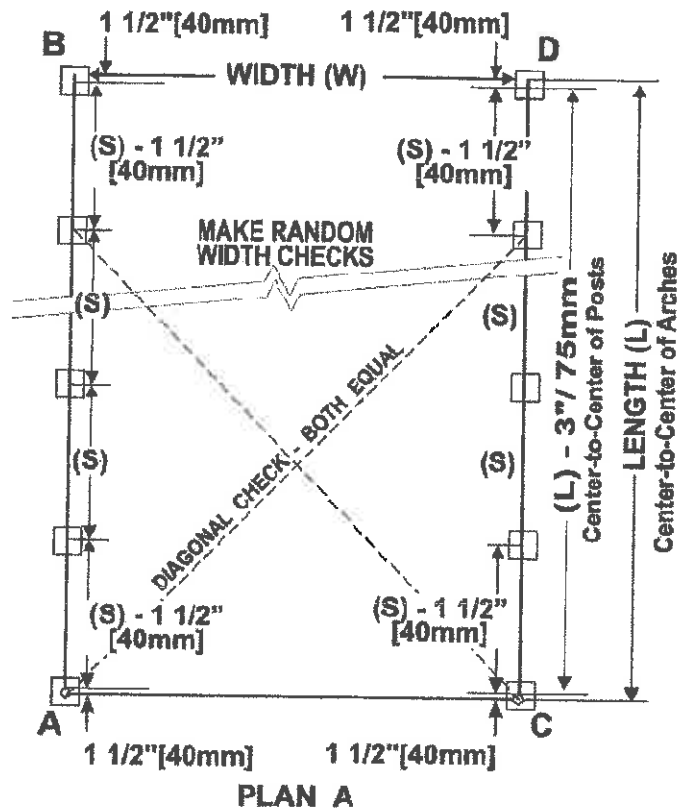
40" WIDE - ATLAS 18
IN TO IN OF POST
(W) WIDTH = 38' 7 3/4"

IMPORTANT

END ARCHES MOUNT 1 1/2" [40mm] OFFSET ON THE SWIVEL PLATE.

PLAN A
 MEASURE AND INSTALL THE END POST CENTERS AT (S) MINUS 1 1/2" [40mm]. THIS WILL ALLOW THE END ARCH MOUNTING BRACKETS TO BE MOUNTED IN THE CENTER OF THE POST

OPTION
 MEASURE AND INSTALL THE OUTSIDE EDGE OF THE END POST AT (S) PLUS 2" [50mm]. THIS WILL ALLOW FLUSH END FABRIC TERMINATION AT THE CORNERS.



BUILDING ON-CENTER MEASUREMENT (S) IS AS ORDERED

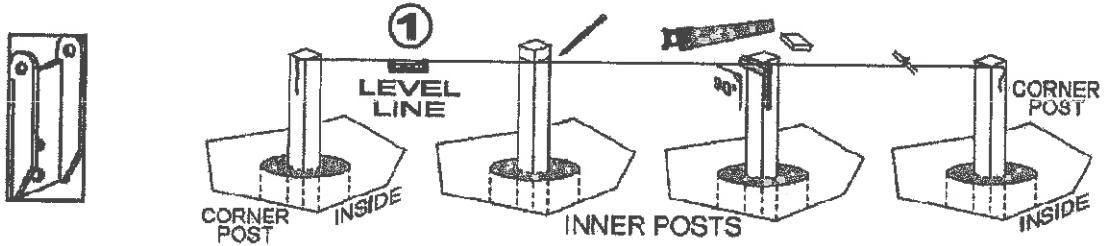
STEP 5

TYPE 220 - INSTALL THE SILL PLATE

THE 220 COVER CANNOT BE TENSIONED WITHOUT THE SILL PLATE

1. CUT POSTS TO DESIRED FINISHED HEIGHT

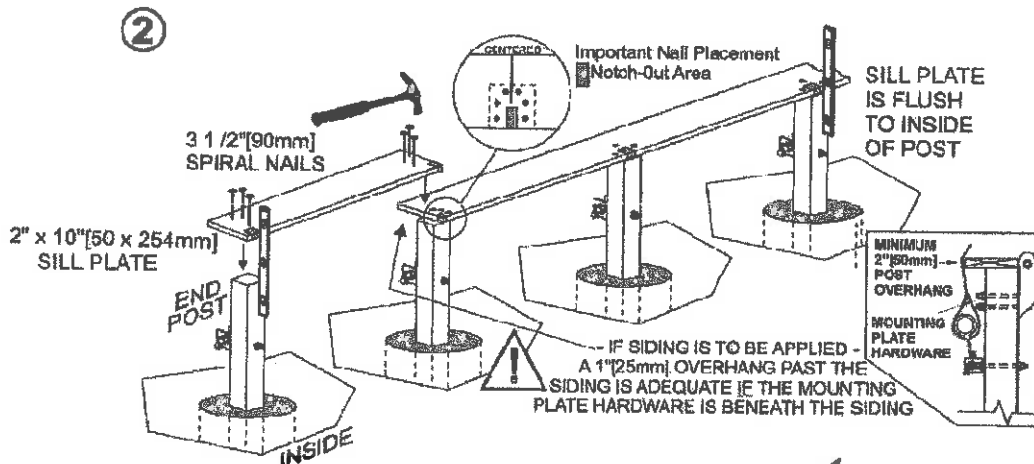
Tie a string line to the corner posts and mark the cut lines on the inner posts. Cut off the tops of each post along the line.



2. INSTALL THE SILL PLATE

Using 3 1/2" [90mm] spiral nails (not supplied), securely fasten a minimum 2" x 10" [50 x 254 mm] dimensional lumber sill plate to the top of the posts.

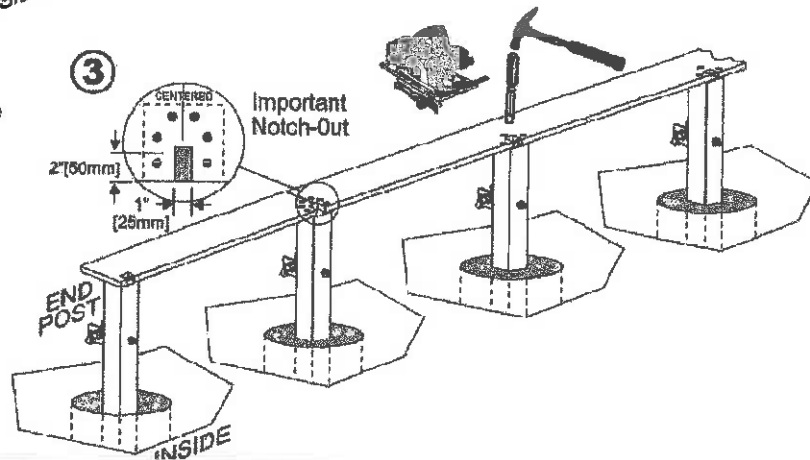
The inside edge of the sill plate is flush to the inside of the post. A 2" [50mm] post overhang is required to keep the cover clear of the mounting plate hardware.



3. Cut out 2" x 1" [50 x 25mm] notches in the sill plate at the posts where the mounting plate and boot swivel will be attached.



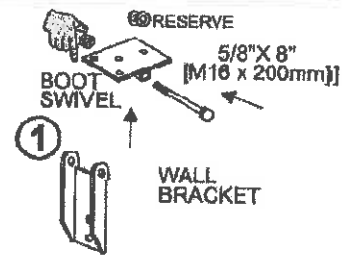
IMPORTANT:
Mounting brackets and swivels will not install properly without notch outs.



STEP 6**TYPE 220 - INSTALL MOUNTING BRACKETS**

1. Temporarily assemble one TYPE 220 mounting bracket and a 4-hole INSIDE boot swivel using a 5/8" x 8" [M16 x 200mm] bolt/washers/nut.

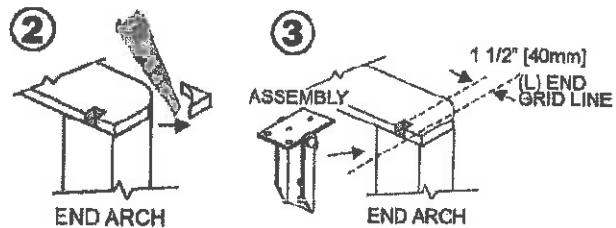
Use this drill guide assembly for drilling the mounting holes in all the posts including the end posts.



2. **END POSTS** - Trim cover plate corners to eliminate a pressure point on the corner fabric.

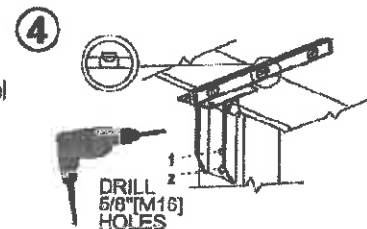
3. **END POSTS** - The center of the bracket assembly mounts 1 1/2" [40mm] inside the end grid line.

Remember - If you have not installed the end posts at (S) minus 1 1/2" [40mm], the bracket will not be centered on the post.



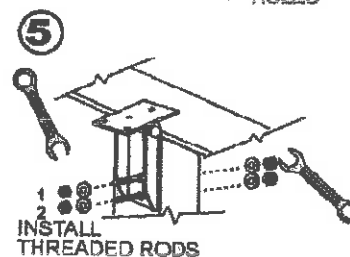
4. **INSIDE POSTS and END POSTS**
Set the drill guide assembly on the post so that the swivel plate is level and drill 2 of Ø 5/8" [16mm] holes through the post.

Use the drill guide assembly to drill 2 of Ø 5/8" [16mm] holes through every post.

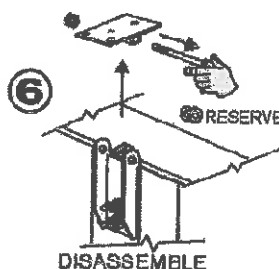


5. **ALL POSTS**
Attach brackets - not the drill guide assembly - to the posts using 2 of Ø 5/8" [M16] threaded rod/washers/nuts.

Install 2 of Ø 5/8" [M16] threaded rods every post.



6. Attach the drill guide assembly bracket on the last post and remove the boot swivel. The swivel attaches to an arch to allow a single pin assembly. See next Step 7.



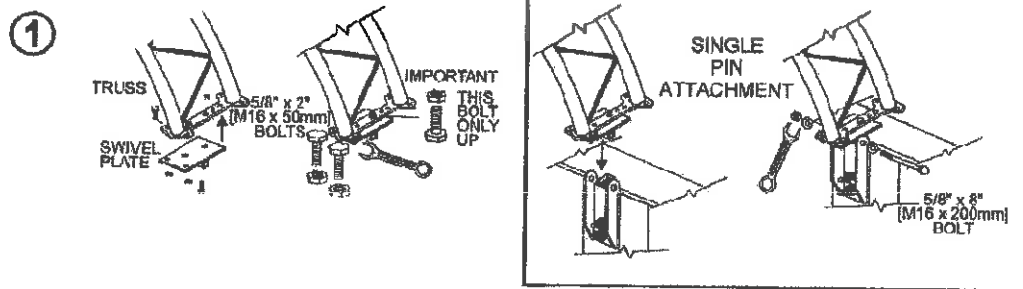
IMPORTANT
TWO threaded rods
MUST BE INSTALLED
every post.

Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 7

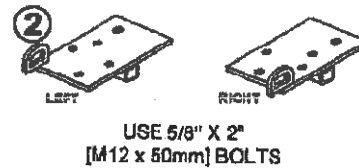
TYPE 220 - INSTALL SWIVEL PLATES

1. **INSIDE ARCHES** - Attach the 4 hole boot swivel plates to the base of the inside arches using 5/8" x 2" [M16 x 50mm] bolts/nuts. This will permit single pin attachment when installing the arches.



2. **END ARCHES** - Attach the 5 hole boot swivel plates with the welded on D-rings to the end arches using 5/8" x 2" [M16 x 50mm] bolts/nuts.

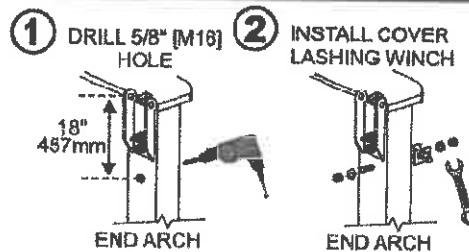
The welded D-rings are always on the **OUTSIDE** of the end of the building.



STEP 8

TYPE 220 - INSTALL COVER WINCHES

1. **ALL POSTS**
Drill a \varnothing 5/8" [16mm] hole through the center of each post 18" [457mm] below the top of the post.
2. Fasten a lashing winch to the outside of each post using 5/8" [M16] threaded rod, nuts, and washers. Tighten securely. *Mount lashing winches with the safety bar facing down.*



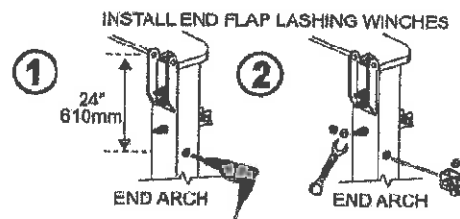
NOTE: If you are installing an eave on your building the cover lashing winches are not mounted on the posts. Cover winches are installed on the base coupler using a winch mount bracket. See STEP 23 for details.



STEP 9

TYPE 220 - INSTALL END FLAP WINCHES

1. **ALL CORNERS**
Drill a \varnothing 5/8" [16mm] hole through the center of each corner post 24" [610mm] below the top of the post.
2. Fasten a lashing winch to the outside (end) of each corner post using 5/8" [M16] threaded rod, nuts, and washers. Tighten securely. *Mount lashing winches with the safety bar facing down.*

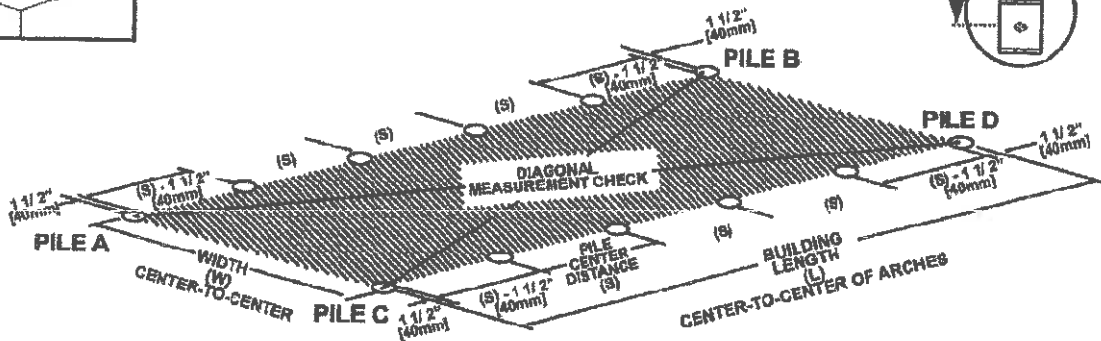
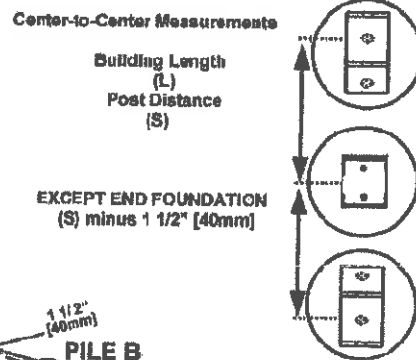
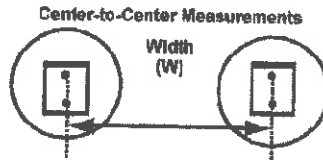
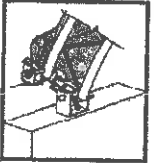
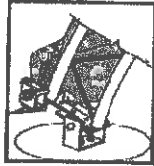


Tighten all bolts/nuts to assembly torque value- See Page 32

TYPE 220 INSTALLATION - Go directly to STEP 12 on Page 13



TYPE 320 INSTALLATION



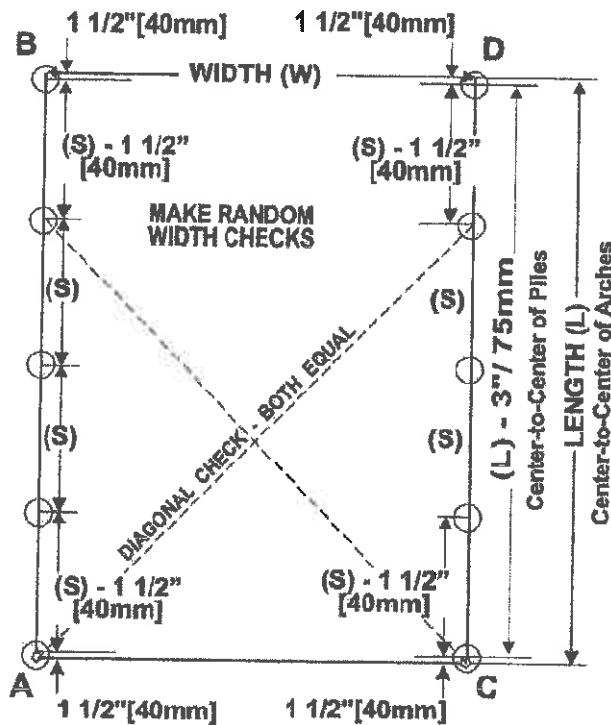
**40' WIDE - ATLAS 18
C/C ANCHOR BOLT
(W) WIDTH = 38' 5 1/4"**

IMPORTANT

END ARCHES MOUNT 1 1/2" [40mm] OFFSET ON THE SWIVEL PLATE.

PLAN A
MEASURE AND INSTALL THE END PILE CENTERS AT **(S) MINUS 1 1/2" [40mm]**. THIS WILL ALLOW THE END ARCH MOUNTING BOOTS TO BE MOUNTED IN THE CENTER OF THE PILE.

OPTION
MEASURE AND INSTALL THE OUTSIDE EDGE OF THE FOUNDATION AT **(S) PLUS 4" [100mm]**. TO REDUCE FOUNDATION PROTRUSION AT THE CORNERS.



PLAN A

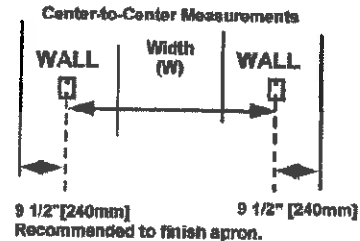
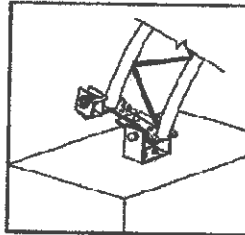
BUILDING ON-CENTER MEASUREMENT (S) IS AS ORDERED



TYPE 320 - INSTALLATION continued

WIDE FOUNDATIONS

Planning the foundation so that the boot mounts 9 1/2" [240mm] from the outside edge will permit the apron to finish straight down from the cover's tensioning point.

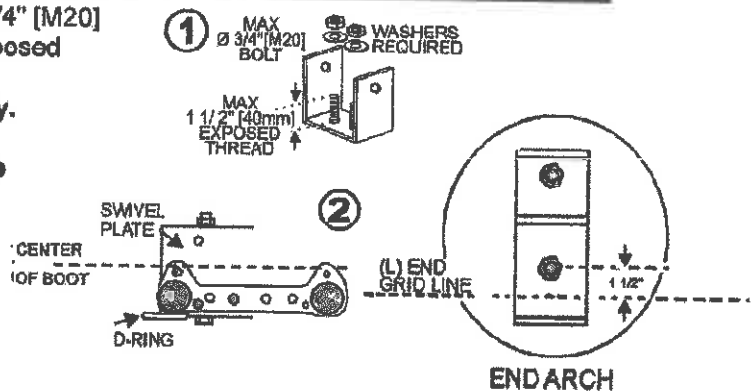


STEP 10

TYPE 320 - INSTALL MOUNTING BOOTS

- ANCHOR BOLTS** - Maximum \varnothing 3/4" [M20] bolts. Maximum 1 1/2" [40mm] exposed thread. Washers required. Tighten all anchor bolts securely.
- END ARCHES** - The center of the mounting boot mounts 1 1/2" [40mm] inside the end grid line.

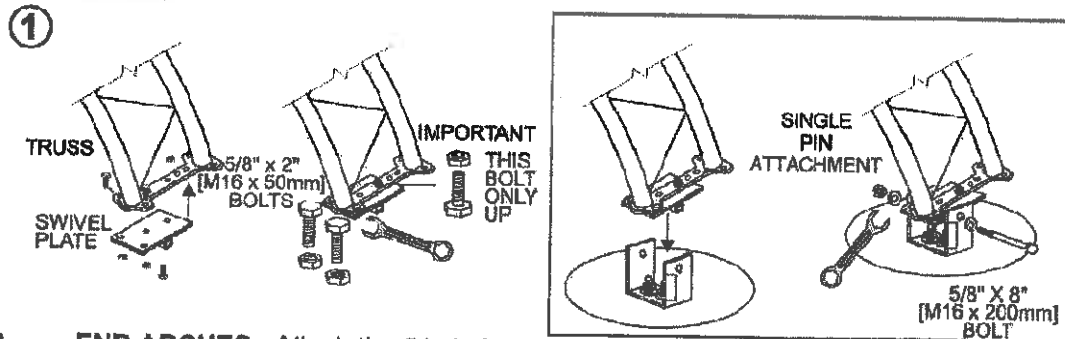
Remember - If you have not installed the end piles at (S) minus 1 1/2" [40mm], the bracket will not be centered on the pile.



STEP 11

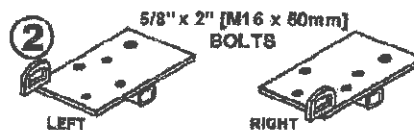
TYPE 320 - INSTALL SWIVEL PLATES

- INSIDE ARCHES** - Attach the 4 hole boot swivel plates to the base of the inside arches using 5/8" x 2" [M16 x 50mm] bolts/nuts. This will permit single pin attachment of the arches.



- END ARCHES** - Attach the 5 hole boot swivel plates with the welded on D-rings to the end arches using 5/8" x 2" [M16 x 50mm] bolts/nuts.

The welded D-rings are always on the **OUTSIDE** of the end of the building.



Tighten all bolts/nuts to assembly torque value- See Page 32

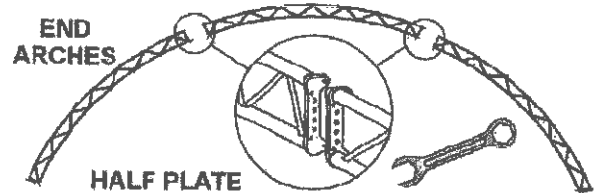
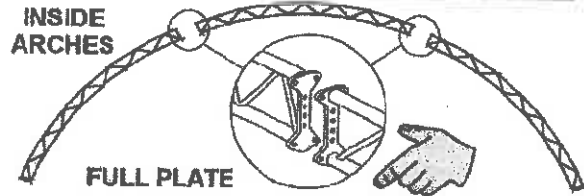
STEP 12

ASSEMBLE THE ARCHES

IDENTIFY AND LAYOUT ARCH TRUSSES.

1. Identify and separate the inside trusses from the end trusses. Inside trusses have full coupler plates. End trusses have half coupler plates

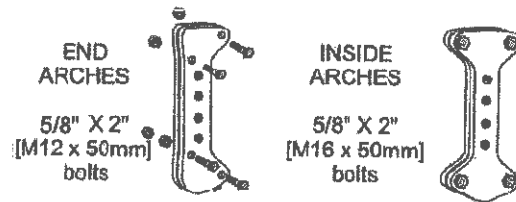
40' WIDE - ATLAS 18
Each completed arch
requires 3 truss sections



ASSEMBLE ARCHES

2. **END ARCHES**
4 of 5/8" x 2" [M16 x 50mm]
bolts/nuts
3. **INSIDE ARCHES**
4 of 5/8" x 2" [M16 x 50mm]
bolts/nuts

LEAVE THE 4 HOLES IN THE
CENTER OF THE COUPLER EMPTY



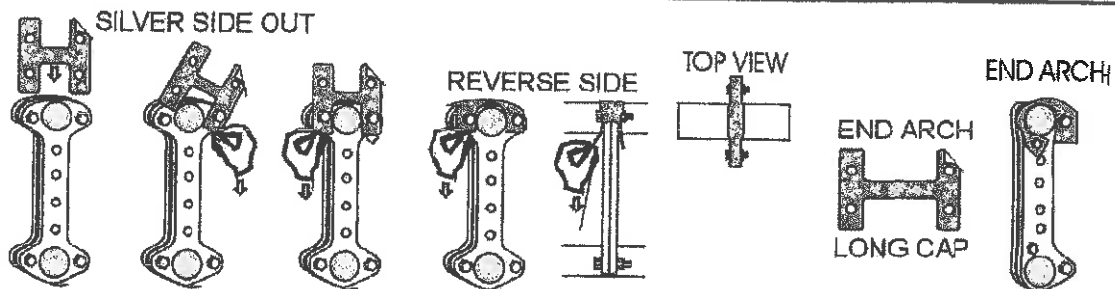
Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 13

INSTALL COUPLER PROTECTORS

The coupler protectors fit OVER the bolt head and nuts of the TOP of the ASSEMBLED arches. The coupler protectors ARE REQUIRED to protect the fabric cover.

WARNING: FABRIC DAMAGE WILL OCCUR IF NOT INSTALLED. Remove or smooth any burs or irregularities before installing.



IMPORTANT - Do not attempt to install the coupler protectors UNDER the bolts or nuts. The fabric will deform, twist and tear off.

WARNING: TRUSS WILL FAIL AND WARRANTY IS VOID IF A SPREADER BAR IS NOT USED.

STEP 14

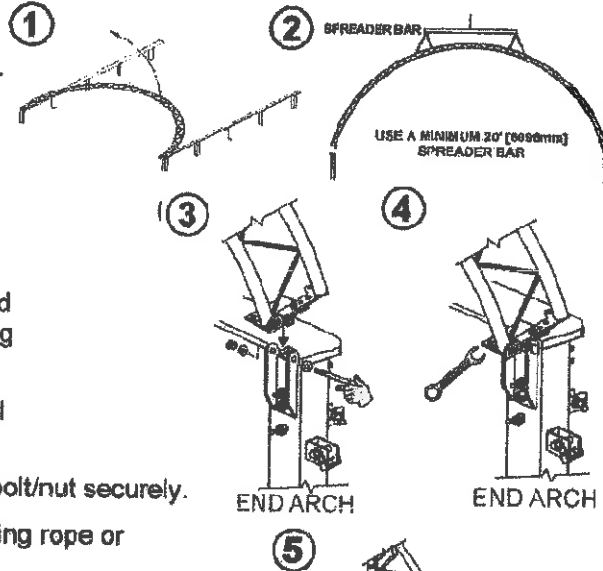
ERECT END ARCH

TYPE 220

MOUNTING BRACKETS AND SWIVELS MUST BE ATTACHED BEFORE ERECTION.

MOVE END ARCH INTO POSITION

1. Position an end arch so that the arch can be tilted upright.
2. Attach a spreader bar to the arch and elevate the truss into its upright position, and center it on top of the end posts. Use extreme caution when lifting arches.
3. Lower the arch into position and install a 5/8" x 8" [M16 x 200mm] bolt/nut.
4. Tighten the 5/8" x 8" [M16 x 200mm] bolt/nut securely.
5. Plumb and brace the arch securely using rope or dimensional lumber.

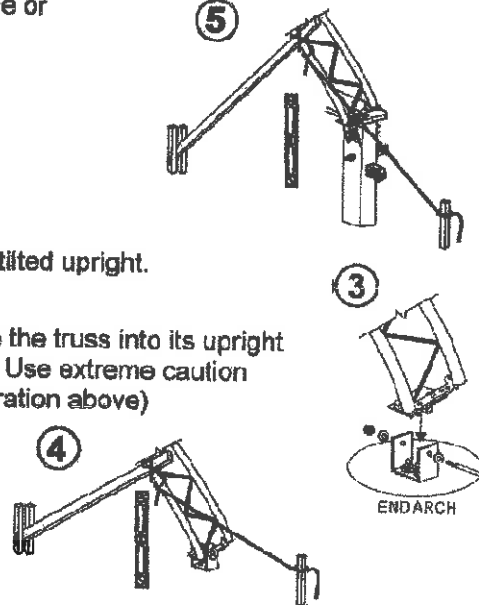


TYPE 320

MOUNTING BOOTS AND SWIVELS MUST BE ATTACHED BEFORE ERECTION.

MOVE END ARCH INTO POSITION

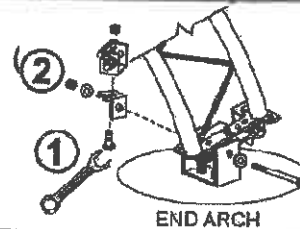
1. Position an end arch so that the arch can be tilted upright. (See ① TYPE 220 illustration above)
2. Attach a spreader bar to the arch and elevate the truss into its upright position, and center it on top of the end piles. Use extreme caution when lifting arches. (See ② TYPE 220 illustration above)
3. Lower the arch into position and install a 5/8" x 8" [M16 x 200mm] bolt/nut.
4. Plumb and brace the arch securely using rope or dimensional lumber.



STEP 15

TYPE 320 - INSTALL END FLAP WINCHES

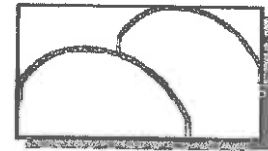
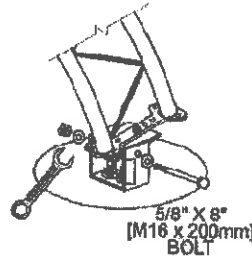
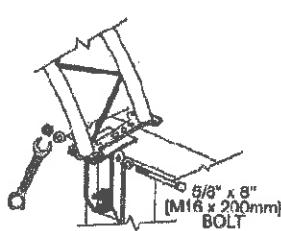
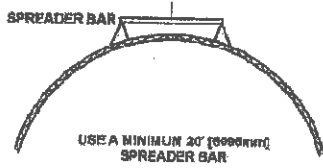
1. **End Arches Only** - Attach an end flap lashing winch to a winch mount bracket using a 5/8" x 2" [M16 x 50mm] bolt/nut.
2. Attach the bracket/winch assembly to the inside of arch boot 5/8" x 8" [M16 x 200mm] bolt. Tighten securely.



Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 16

ERECT THE NEXT ARCH

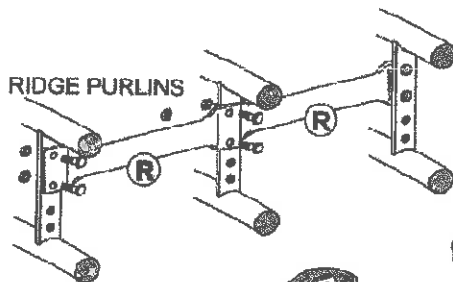


WASHERS ARE REQUIRED

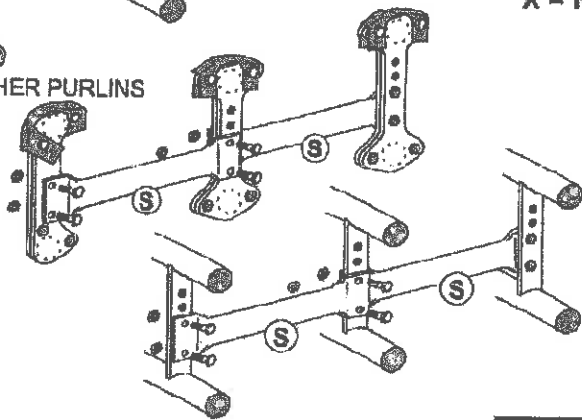


STEP 17

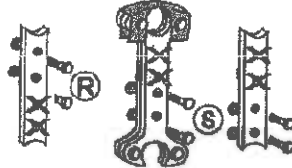
INSTALL PURLINS



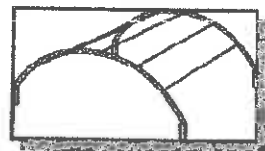
ALL OTHER PURLINS



ALWAYS



X = NO BOLTS



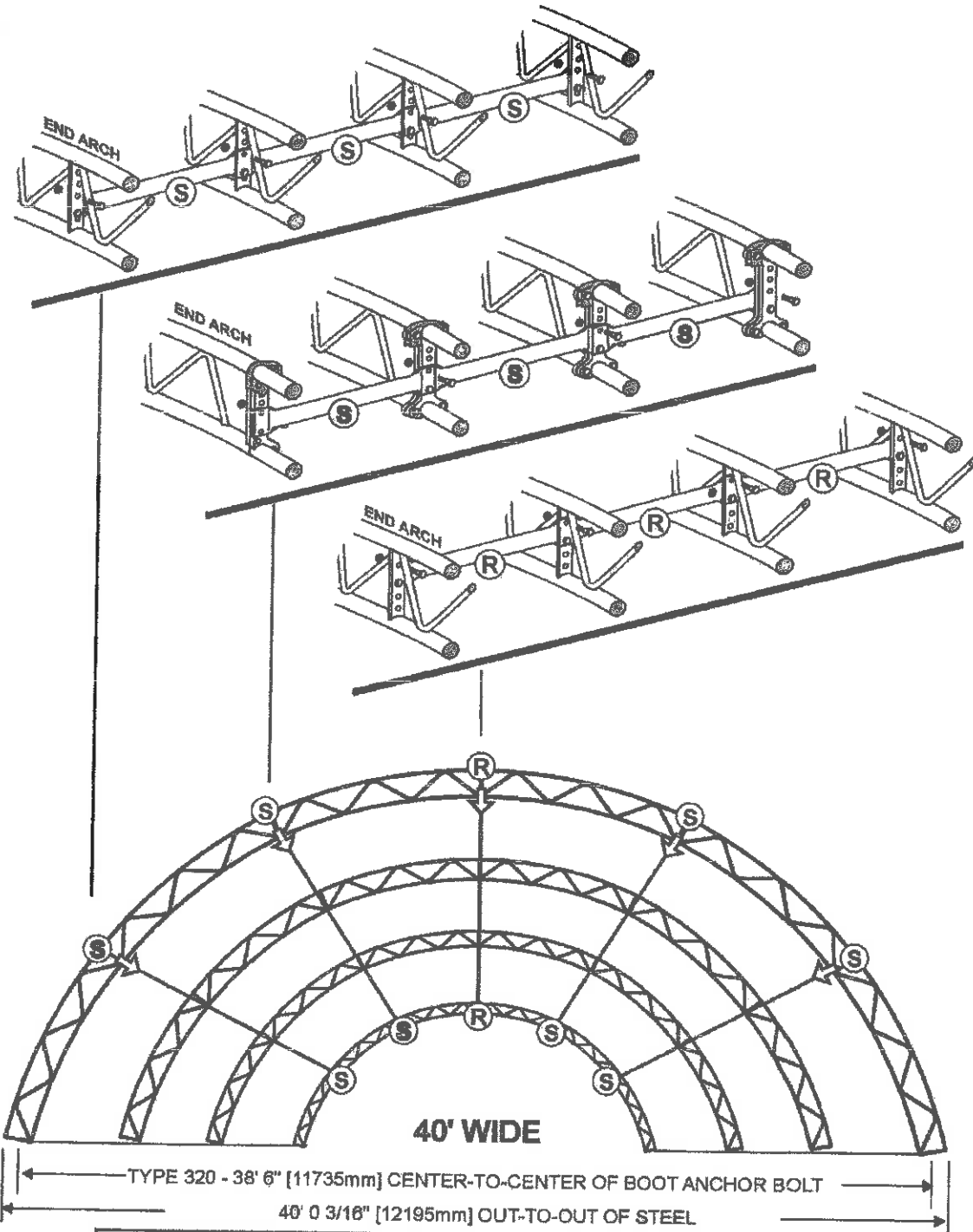
ATTACH PURLINS USING
5/8" x 2" [M16 x 50mm]
BOLTS

LABOUR SAVING HINT
ARCHES WITH CROSS CABLES
Do not install CENTER HOLE bolts.
See Step 18 next page.

IMPORTANT
INSTALL ALL PURLINS BETWEEN
THESE FIRST TWO
ARCHES BEFORE PROCEEDING

Tighten all bolts/nuts to assembly torque value- See Page 32

40' WIDE - ATLAS 18



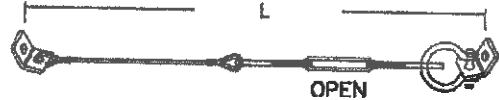
Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 18

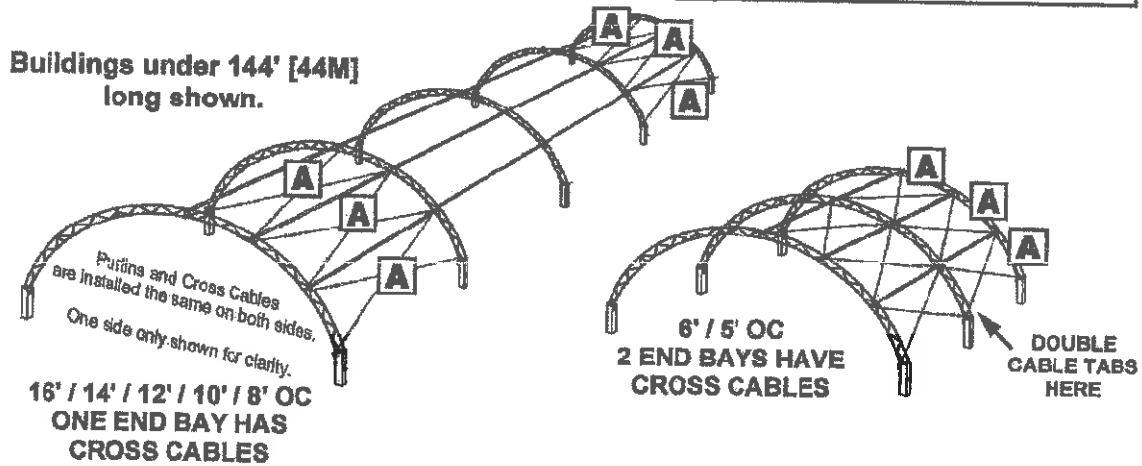
INSTALL CROSS CABLES

Cross cabled end arch (or arches) create a structural frame for the rest of the building.

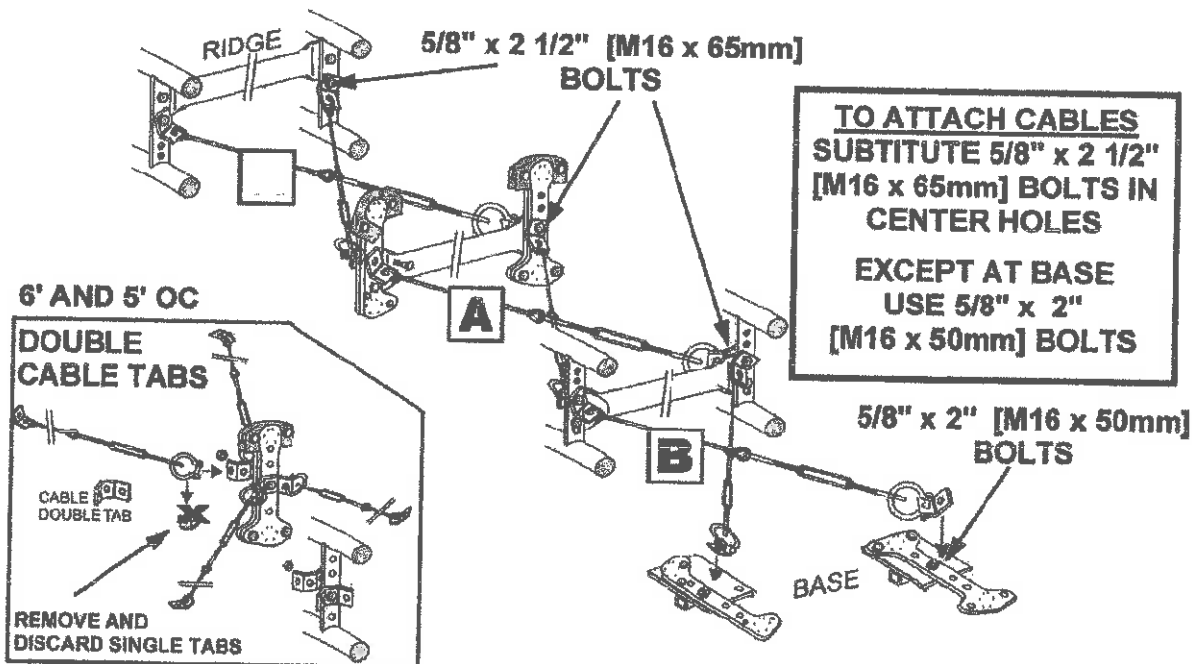
This Atlas building uses one only cable length .
Install cables at every LOCATION **A**.



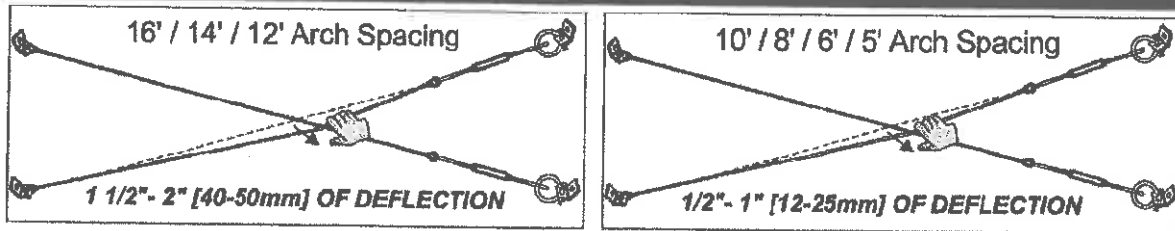
NOTE: Arch spacing determines cable length. More than one cable length is supplied when any portion of the building has a different arch spacing. See Building Components, Page 1, of this manual for cable lengths for specific arch spacings.



CABLES ALWAYS ATTACH AT THE CENTER HOLE



Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 19**TENSION CROSS CABLES**

MAKE CROSSED CABLE LENGTHS EQUAL TO SQUARE

**STEP 20****TIGHTEN CABLE TURNBUCKLE LOCKNUTS****STEP 21****ERECT ALL REMAINING ARCHES**

ERECT ALL REMAINING ARCHES. AND INSTALL ALL PURLINS AND ALL CROSS CABLES

STEP 22**BUILDINGS OVER 144' [44M] - SEE APPENDIX A**

If you are erecting a building that is over 144' [44M] long go to APPENDIX A, Item 1, on Page 26 of this manual for cross cable placement and cross cable double tab placement.

STEP 23**TYPE 320 - INSTALL COVER LASHING WINCHES**

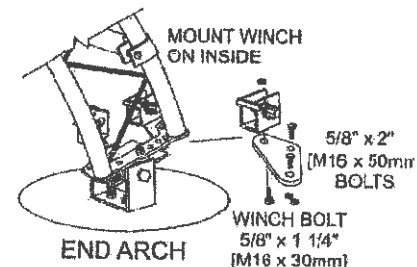
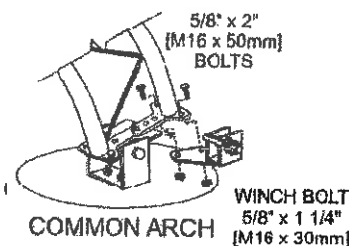
1. Install lashing winch mounting brackets on the underside of each arch base EXCEPT 5' [1524mm] o/c and 6' [1830mm] o/c buildings - install every other arch - match placement to notches in cover.

Inside Common Arches -

1 bracket required
5/8" X 2" [M16 x 50mm]
bolts/nuts

End Arch -

1 bracket required
5/8" x 2" [M16 x 50mm]
bolts/nuts



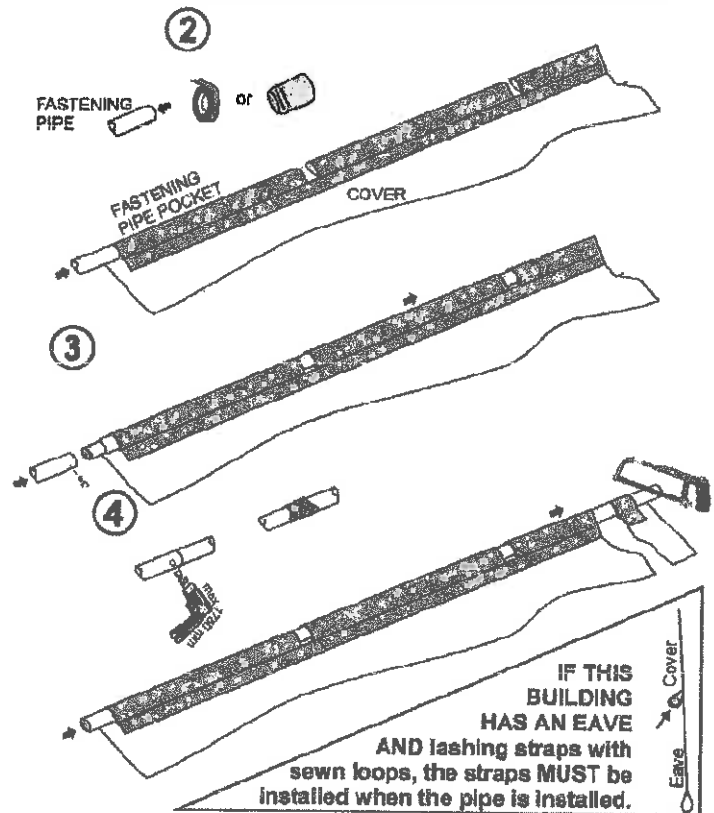
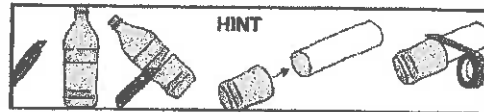
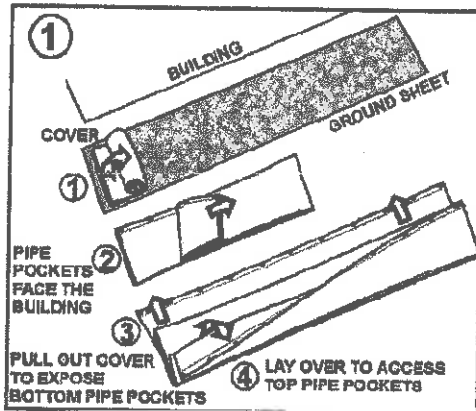
2. Attach lashing winches using 5/8" x 1 1/4" [M16 x 30mm] bolts/nuts.

Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 24

INSTALL COVER FASTENING PIPES

Use a ground sheet to protect the cover while it is being prepared for installation.



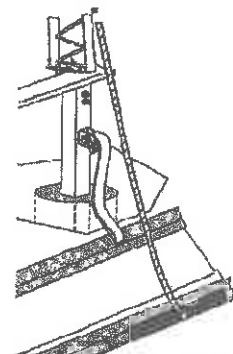
1. Roll out the cover and leave a small walk area along the building. Align the cover evenly to each end of the frame.
2. Pipe raw edge can damage pocket fabric. Wrap or cap leading edge of pipe.
3. Install BOTH fastening pipes.
4. Use 1/4" x 3/4" [M6 x 20mm] Tek self-drilling screws to fasten the pipes together. Wrap with duct tape (tape optional - not supplied).

NOTE: Fastening pipes are supplied in factory cut lengths. Some buildings will require measured cuts, possibly on two lengths of pipe.

BUILDINGS USE 2" x 3" [50 x 75MM] RECTANGULAR FASTENING PIPE OR 2 3/8" [60MM] ROUND FASTENING PIPES



OR

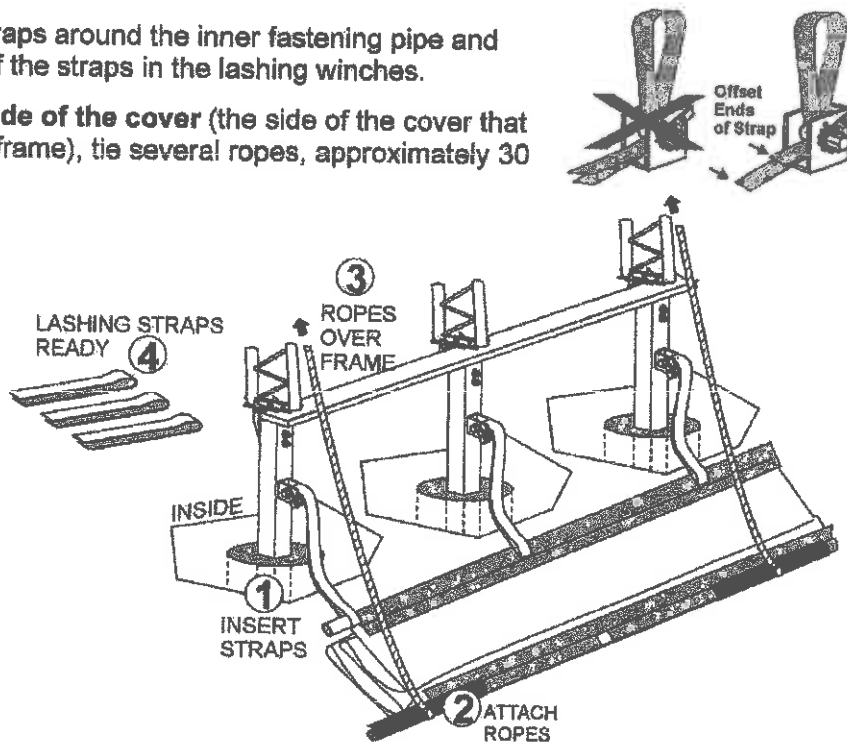


STEP 25

INSTALL THE COVER

NOTE: DO NOT install the cover onto the frame in high wind conditions. A slight breeze is the most advantageous for cover installation. Take advantage of the breeze by pulling the cover up over the arches with the breeze blowing into the cover . . . like a sail filled with air.

1. Loop the lashing straps around the inner fastening pipe and secure both ends of the straps in the lashing winches.
2. On the opposite side of the cover (the side of the cover that is furthest from the frame), tie several ropes, approximately 30 feet [9M] apart, to the steel fastening pipe through the notched hole.
3. Throw the free end of the ropes over the frame to the opposite side of the building.
4. Ready the lashing straps on the opposite side of the building.



CHECK LIST:

- **BEFORE** proceeding ensure that the cover is **POCKET SIDE** up.
- **ALL** coupler plates have coupler protectors.
- **BOTH** fastening pipes are in place.
- Fastening straps near side are **SECURED** in the lashing winches.
- Ropes are secured to the **OPPOSITE** pipe and passed over the frame.
- **NO WIND** or there can be a light breeze (ideally from rope pulling side).



USE CAUTION WHEN INSTALLING COVERS WITH MOTORIZED EQUIPMENT. PRE-ARRANGE COMMUNICATION DEVICES OR HAND SIGNALS TO RELAY DIRECTIONS TO EQUIPMENT OPERATORS.

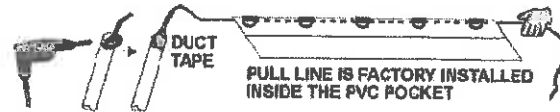
5. Pull the cover over the frame **EVENLY, CAREFULLY** and **SLOWLY**.
6. Loop the lashing straps around the fastening pipe and **loosely secure** in the lashing winches. **DO NOT TIGHTEN**. Adjust the cover so that it is square and evenly centered on the frame. *The end flaps should overhang evenly at both ends.*

NOTE: DO NOT LEAVE THE COVER UNATTENDED UNDER ANY CIRCUMSTANCES until final assembly and tightening has been completed.

STEP 26

INSTALL COVER PVC PIPE

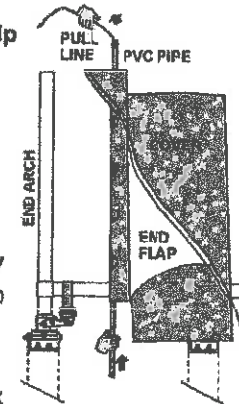
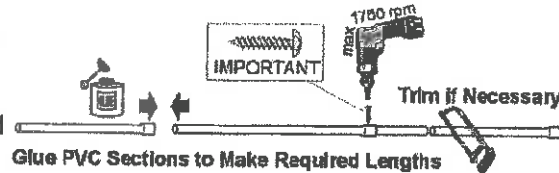
1. Once the cover is on the frame and is sitting centered, square and straight, visually check to ensure the cover extends approximately 12" [305mm] on both ends of the building.
2. Drill a hole in the smooth end of one PVC tube and tie the pull line to it. Wrap this leading end with duct tape.



Hint - A small funnel or cone (not supplied) on the leading edge of the PVC will help spread the PVC pocket.

3. Push - Pull the PVC into the pocket.
Glue and screw the lengths of PVC together as you proceed.

IMPORTANT - ALWAYS install a screw (not supplied) at every connection. PVC glue loses adhesive qualities when applied in cold weather and in damp and humid conditions.



Hint: PVC tubes should slide easily into the pockets. Do not force. Check for twisted fabric or misaligned pocket openings if you experience difficulty.

STEP 27

TENSION COVER ENDS

1. Operate the cover fastening tube end arch lashing winches to remove the slack from the lashing straps. **DO NOT TENSION.**

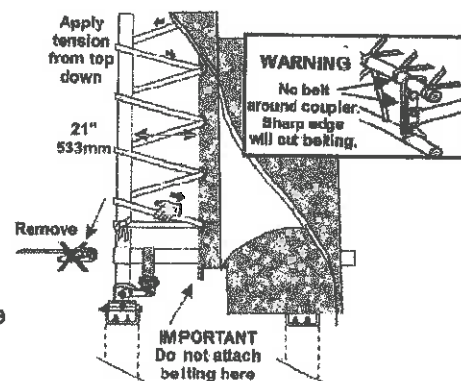
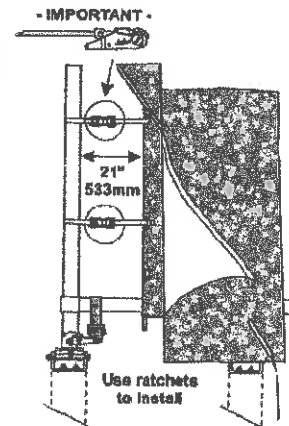
Hint - Use ratchet straps (not supplied) on both ends, evenly spaced, to tension and hold the cover lengthwise. Adjust to obtain a distance of 21" [533mm] between the Arch tube and the PVC pipe at both ends. Then lace the cover to the end arch.

2. Lace - start at the base. Lace the 1" [25mm] belting around the PVC tube through the notches and then back to the top truss tube of the end arch - in 10'-12' [3-4M] sections - all the way up to the top center of the building. Tie off each section. Repeat lacing from other base.

Hint - The cover shifts down when final tension is applied. Always try to lace the belting on the down side of the web weld.

3. Tension - start at the top center. Work your way down from the secured end use force to tighten the belting and finish by tying the belting off on each section. The PVC tube should be parallel with the end arch all the way around.
4. Lace and tension the opposite end of the building. The cover should be tight and secure from end to end when finished.

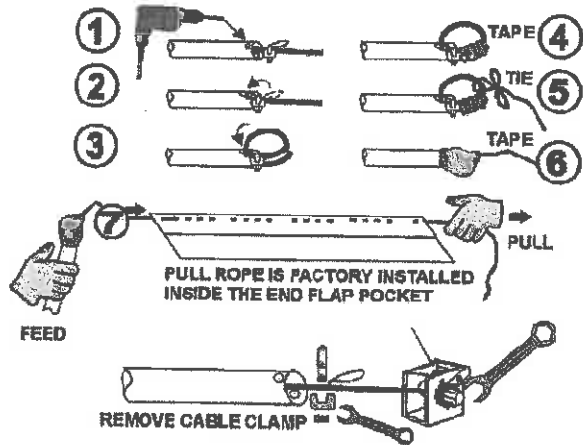
Hint: Trim the belting excess after you have finished the tighten-down.



STEP 28

INSTALL END FLAP CABLE

1. Secure BOTH the cable and PVC tube casing to the end flap pull rope in an acceptable manner. Protect the fabric from any sharp edges.
2. Feed and pull the cable through the end flap until it is equal on both sides.
You may require a third person on a lift to assist the cable through the folds and creases. You can try flipping the end flap flat over the top of the building.
3. The cable clamps can be removed after the cable is secured into the lashing winch.



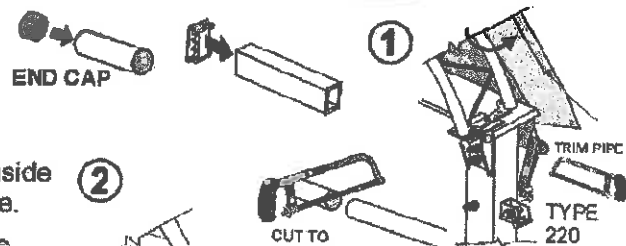
WARNING - Pull slowly or rope burn will damage fabric.

STEP 29

TERMINATE THE COVER FASTENING PIPE

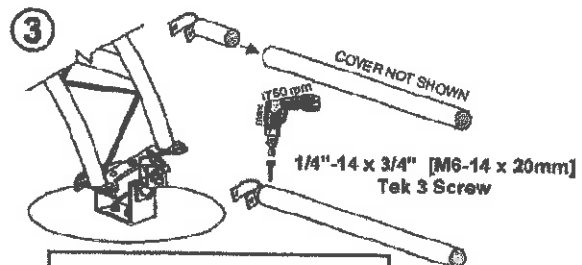
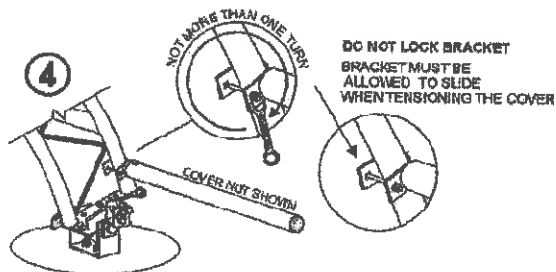
TYPE 220 INSTALLATION

1. Trim the fastening pipe to the end of the building and install plastic end caps.



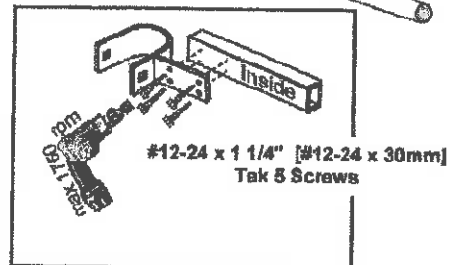
TYPE 320 INSTALLATION

2. Cut the ends of the fastening pipe to fit inside the arch with 1/2"-1" [12-25mm] clearance.
3. Install the saddle bracket in the end of the tube and secure using a single 1/4"-14 x 3/4" [M6-14 x 20mm] Tek 3 screw.
4. Fit the saddle over the arch tube and install a 1/2" x 4" [M12 x 100mm] carriage bolt/nut.



IMPORTANT: Deform the bracket by tightening the 1/2" [M12] bolt/nut as far as possible. This will reduce any protruding edges. Then release the nut until you achieve a one turn lock. The bracket must be allowed to slide on the truss tube when the cover is tensioned.

Tighten all bolts/nuts to torque value- See Page 32

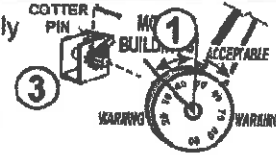


It is now safe to remove all ropes used to steady the frame and install the cover.

STEP 30

TENSION THE COVER

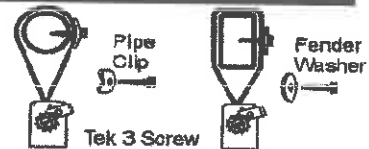
1. Use a 1 1/8" [29mm] wrench to tighten the cover lashing straps evenly on both sides of the building. The tension for the lashing winches on this building has been calculated at **35 - 45 ft. lbs. [48-60N.m.] DO NOT EXCEED 45 ft. lbs. [60N.m]** Use a torque wrench. Remove as many wrinkles and creases and bagging as possible.
2. Next, adjust the end lashing straps tension until the cover fastening pipes are level.
3. Install a cotter pin in the lashing winch pilot holes to lock the release lever.



STEP 31

TYPE 220 - SECURE END LASHING STRAPS

1. Secure the outside (end) lashing straps (4) to the fastening pipe by using pipe clips or fender washers and 1/4" x 3/4" [M6 x 20mm] Tek 3 self-drilling screws. Install the screws through the fastening strap into the fastening pipe.

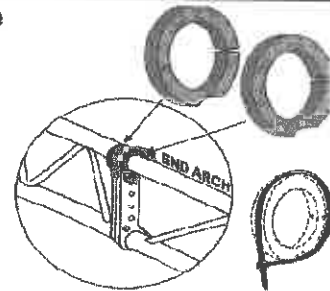


NOTE: Failure to secure the corner fastening straps to the pipe could result in possible damage to the cover. Not required on TYPE 320 installation.

STEP 32

INSTALL RUBBER END FLAP PROTECTORS

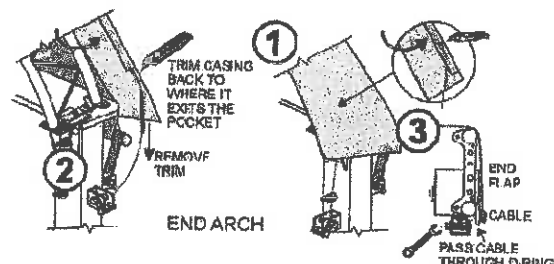
1. All buildings require 2 rubber end flap protectors installed on the upper truss tube at all connected couplers on the end arches.
2. The rubber protectors are designed to pressure fit on the truss tube. If necessary, tape them in position.
3. **WARNING - DO NOT** tension the end flap without installing the rubber protectors. **DAMAGE WILL OCCUR.** If protectors are missing, wrap \varnothing 1/2" [12mm] 12 rope at the coupler and tape to secure.



STEP 33

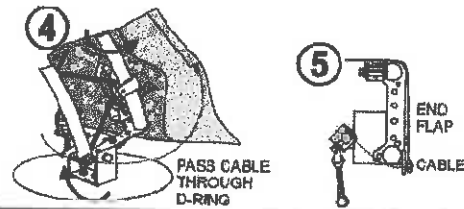
TENSION THE END FLAP CABLES

1. Trim the plastic cable casing.
2. **TYPE 220** - Insert the cable in the end flap winches so that the windings bind the cable end.
3. **TYPE 220 with Fabric End Wall** - Cut an exit hole in the end flap pocket so the cable exits above the D-ring. Pierce the end panel and feed the cable inside the building through the D-ring to the winch. Secure or weld the end flap tail to the end wall.



It may be necessary to repeat the tightening several times at both winches.

4. **TYPE 320** - Thread the end flap cable through the D-ring to the end flap winch.
5. Tighten winches on both sides until the end flap is tight. Repeat this procedure on the other end of the building.



STEP 34

TYPE 320 - SECURE THE APRON

ALWAYS SECURE THE APRON

The fabric is designed to be under tension at all times.

GROUND

Use dimensional lumber to attach the apron to the frame or foundation. Or back fill the apron at the foundation.

WALL

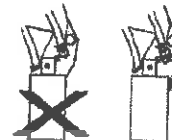
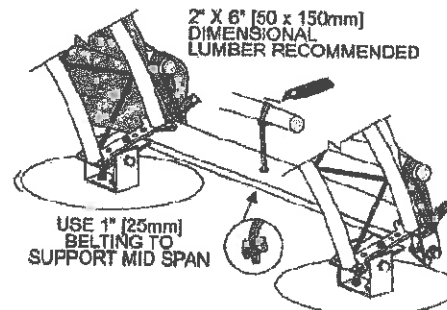
Depending on the width of the wall you may want to consider the following finishing option. Protruding edges on fabric are potential wear points.

WARNING - This is a 320 APRON option only. Do not use for 220 covers.

1. Attach dimensional lumber to the underside of the arch bases so that the apron can be wrapped around the lumber and away from protruding edges.

NOTE: Longer bolts may be required to re-attach the lashing winches.

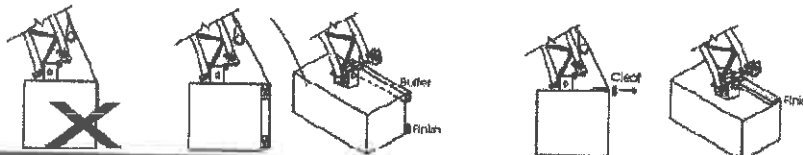
2. Drill a 1" [25mm] hole mid span in the dimensional lumber and pass a short section of 1" [25mm] belting through the hole. Tie a permanent knot below the lumber that will not pass through the hole.
3. Slit the fastening tube pocket directly above the hole and loop the 1" [25mm] belting around the fastening tube. Level the dimensional lumber and tie a releasable knot.
4. This belting will keep the dimensional lumber from sagging. The belting length may need to be adjusted when cover tension is adjusted.



CONCRETE

Never install fabric over concrete edges.

Always install a dimensional lumber buffer or equivalent.



STEP 35

READ MAINTENANCE SCHEDULE Page 2

STEP 36

COMPLETE WARRANTY REGISTRATION

www.britespanbuildings.com

**APPENDIX A
EXTRUSION CONNECTION**

TYPEB

TYPEC

TYPED

**APPENDIX B
FLAP OVERLAP CONNECTION**

TYPEA

APPENDIX A

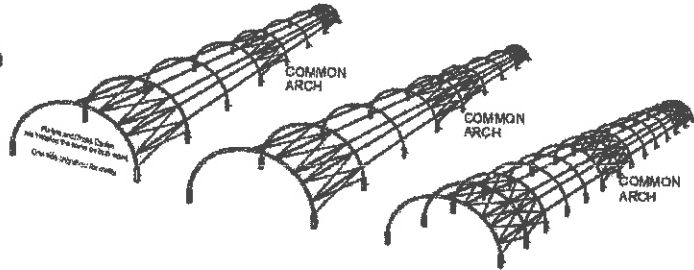
EXTRUSION CONNECTION

Multiple covers are provided for buildings over 144' [44M] in length.
This enables ease of onsite handling and installation.

Normally covers are supplied in equal or near equal lengths. The longest cover length is 144' [44M].
Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. CROSS CABLE INSTALLATION

- A. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.



THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.

- B. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.

**STEP 22
FROM
PAGE 18**

DOUBLE TAB AND CROSS CABLE PLACEMENT

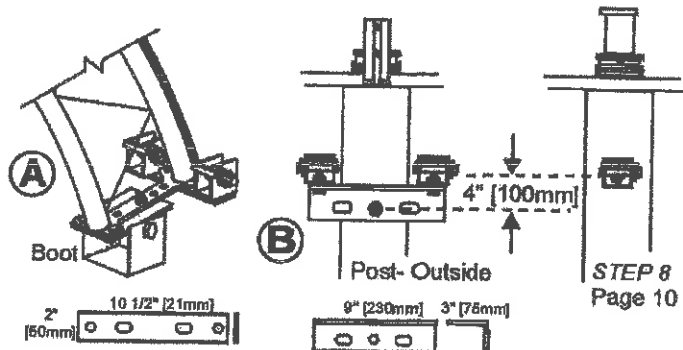
16' Arch Spacing

14' / 12' / 10' / 8' Arch Spacing

6' / 5' Arch Spacing

2. WINCH BRACKET INSTALLATION

- A. Attach the flat winch bracket to the common arch base using 2 of 5/8" x 2" [M16 x 50mm] bolts/nuts.
- B. Attach the angle winch bracket on the outside of the common post using one of 5/8" x 12" [M16 x 305mm] threaded rod and 5/8" [M16] washers/nuts. Attach the winches using 5/8" x 1 1/4" [M16 x 30mm] bolts/nuts.



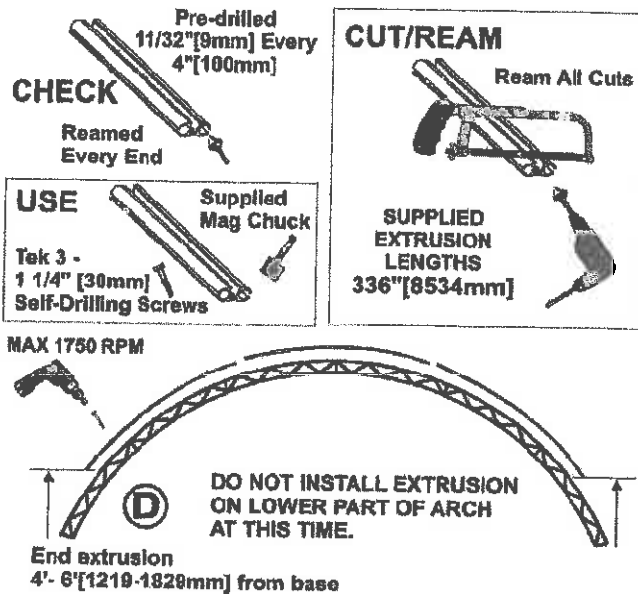
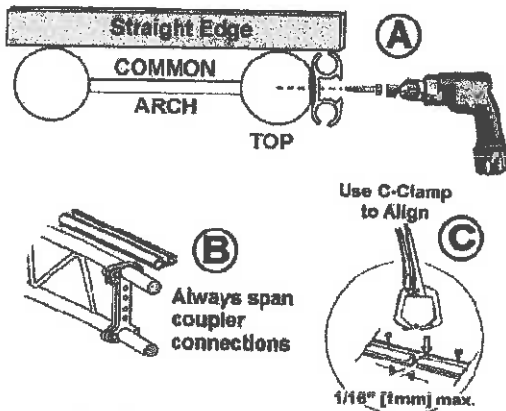
Tighten all bolts/nuts to assembly torque value- See Page 32

3. INSTALL EXTRUSION

Apply Norseal butyl tape to underside of extrusion

Install extrusion on the Common arch as shown using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.

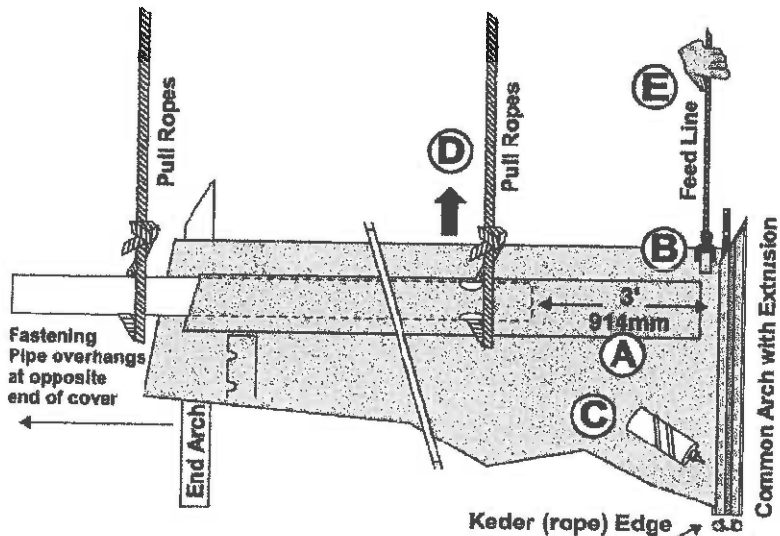
Step #6 can be completed before truss is lifted into place.



4. 2 COVER INSTALLATION

Install the covers as directed in STEPS 24-33 (Pages 19-23), **except** :

- A - When installing the cover, shift the pull-over fastening pipe 3 feet [914mm] away from the extrusion end of the cover (the keder rope edge).
- B - Attach a light feed line to the keder D-ring at the leading edge of the cover.
- C - Charge the extrusion with WinterGel Lubricant.
- D - PULL the cover with the fastening pipe.
- E - FEED the keder edge evenly with the D-ring line while installing.
- F - Fastening pipe end brackets are not required at common arch.

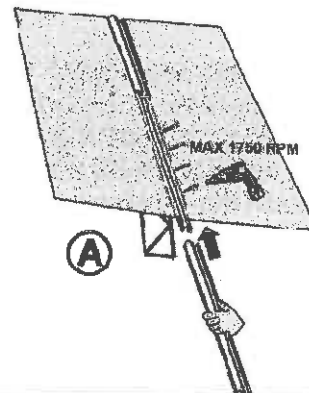


YOU MUST USE RATCHET STRAPS TO GET ADEQUATE LENGTHWISE TENSION ON THE COVER
SEE STEP 27, Page 21.

5. LOWER EXTRUSION INSTALLATION

- A. After both covers are installed, install extrusion on the lower edge of the covers and secure to the common arches using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.

THE INSTALLER DETERMINES WHERE THE LOWER EXTRUSION TERMINATES - AVOID POINTS OR ANGLES THAT COULD DAMAGE THE FABRIC WHEN THE FABRIC IS TERMINATED.



6. TRUSS COVER INSTALLATION

A - Install the truss covers

Use a rubber mallet to install snap cap on outside of extrusion



7. 3 OR MORE COVERS - INNER COVERS -

A - Install extrusion on all Common arches.

B - Inner covers have a main cover part and a narrow connector part. Both parts have a keder end and a PVC pocket end and are laced together at the PVC connection.

Install the main cover part and the narrow connector part separately.

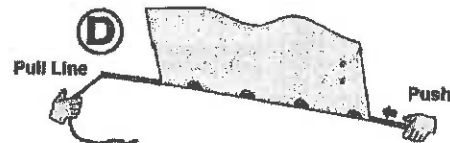
C - Assemble lengths of PVC pipe.

D - Install the PVC pipe in the PVC pockets of both the main cover part and the narrow connector part.

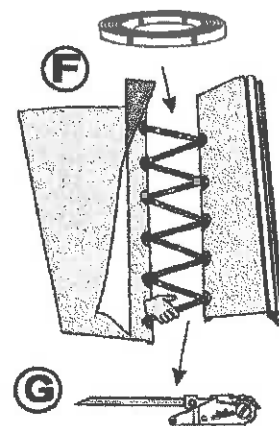
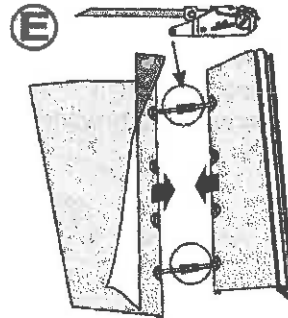
E - Attach ratchet straps to the PVC pipes every 10-12 feet [3-4M] and apply tension.

F - Lace the PVC pipe together in 10-12 feet [3-4M] sections using the 1" [25mm] belting. Always tie off the sections.

G - Remove the ratchet straps.



- IMPORTANT -



Finish the interior covers by following the directions Step 5 and Step 6 in this Appendix A.

APPENDIX B

FLAP OVERLAP CONNECTION

Multiple covers are provided for buildings over 144' [44M] in length.

This enables ease of onsite handling and installation.

Normally covers are supplied in equal or near equal lengths. The longest cover length is 144' [44M].

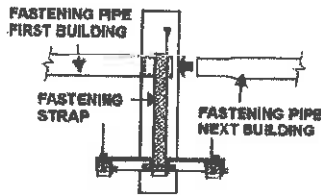
Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. SITE PREPARATION

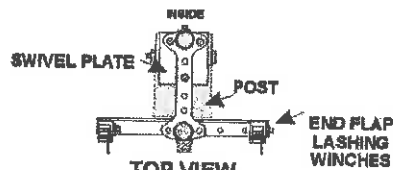
- a. Arch spacing (running measurement) is the same for the entire length of the building. (the covers share a common arch). *Eg. - 150' [46M] building on 10' [3M] centers has 16 piles/posts on each side.*

2. TYPE 220 INSTALLATION - JOINER BRACKET

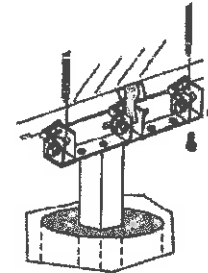
- a. Install a joiner bracket to the common arch post. The bracket installs under the cover lashing winch on the threaded rod. Add an end flap lashing winch to each end of the bracket using 5/8" x 2" [M16x50mm] bolts and nuts.



OUTSIDE VIEW

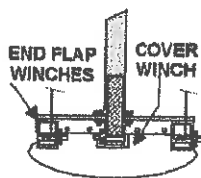


TOP VIEW

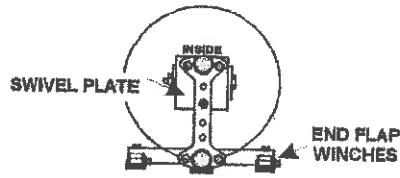


3. TYPE 320 INSTALLATION - JOINER BRACKET

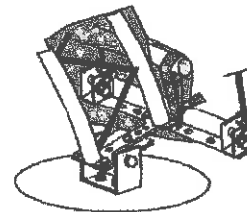
- a. Install a joiner bracket to the underside of the arch base between the cover lashing winch and the base using 2 of 5/8" x 2" [M16 x 50mm] bolts/nuts. Add an end flap lashing winch to each end of the bracket using 5/8" x 2" [M16 x 50mm] bolts and nuts.



OUTSIDE VIEW

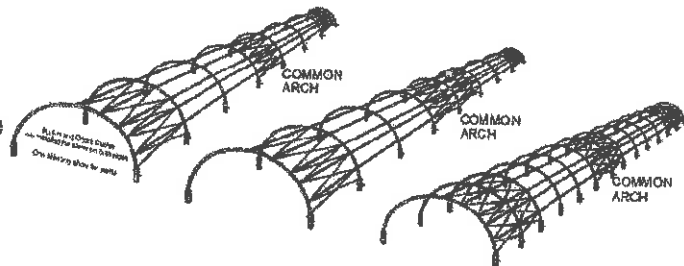


TOP VIEW



4. CROSS CABLE INSTALLATION

- a. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.



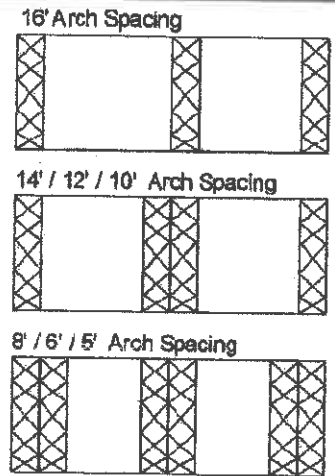
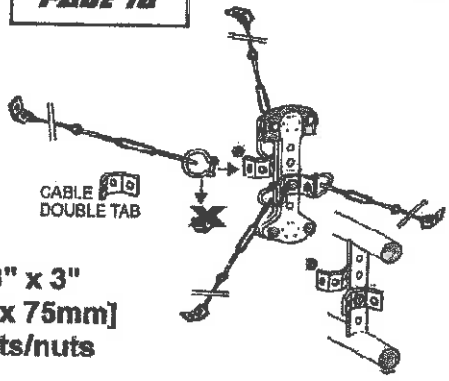
THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.

Tighten all bolts/nuts to assembly torque value- See Page 32

**STEP 22
FROM
PAGE 18**

DOUBLE TAB AND CROSS CABLE PLACEMENT

- b. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.

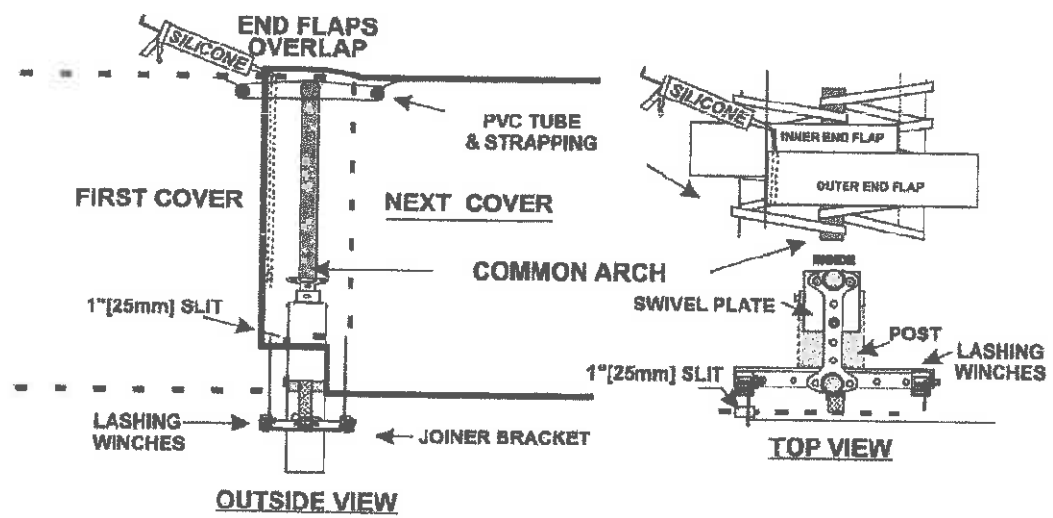


5. COVER INSTALLATION

- a. Install the first cover as directed in STEPS 24-32 (Pages 19-23), except that : the end flap on the common arch is *not* secured at this time, flip the end flap back and out of the way; the joiner bracket is installed under the lashing winch; and the end flap lashing winches are secured to the joiner bracket.
- b. Install the next cover in the same manner, *facing the PVC tube to the common arch*. Do not tighten the lashing winches of this cover at this time.

TYPE 220 INSTALLATION

← PREVAILING WINDS



- c. Release the fastening strap in the end arch winch of the first building. Join the fastening pipe of both covers and secure with Tek self-drilling bolts. Place the fastening strap over the fastening pipe and re-install the end fastening strap in the winch. Retighten this lashing winch and tighten all of the winches of the next cover. Adjust the cover lashing winches to remove as many wrinkles and bagging as possible over the entire building. For most buildings 35 - 45 ft. lbs [48-60 N.m.] of torque provides adequate cover tension.

Tighten all bolts/nuts to assembly torque value- See Page 32

- d. Place the end flap of the first cover over the next cover's lacing. Attach the end flap cable for this first (inner) end flap to the lashing winches. Tension the lashing winches.

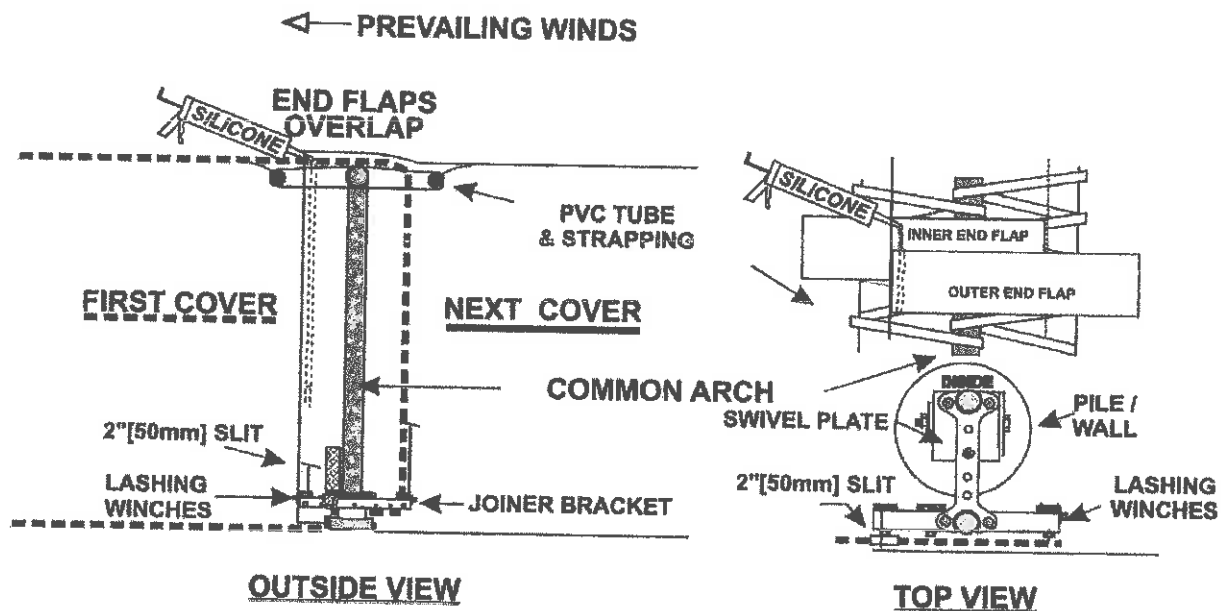
NOTE: If your building is subject to prevailing winds, you should secure the end flaps to protect the overlap.

- e. Place the end flap (outer) of the next cover over the first (inner) end flap. Cut a slit in the first (inner) end flap at the point where the end flap cable for the outer end flap exits its pocket. Feed the fastening cable through the slit and attach to the lashing winches. Tension the lashing winches.

It is best to have the end flap PVC cable casing passing through the fabric or against any part of the fabric rather than the end flap steel cable.

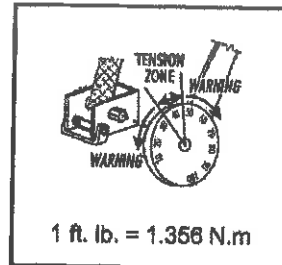
- f. Apply a bead of silicone (supplied) between the outer end flap and the cover. Insert the tube tip between the layers with all straps fastened securely. Walk on the building to seal the top portion of the end flap and use a ladder or lift equipment to reach the sides. Where it is difficult to reach some areas, unsealed portions should not exceed 3 feet [914mm].

TYPE 320 INSTALLATION

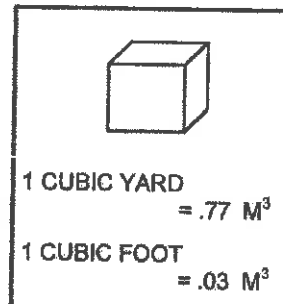


CONVERSIONS

| INCHES | | MILLIMETERS | | | | |
|--------|-------|-------------|------|------|------|------|
| 1/32" | | | | | | |
| 2/32 | 1/16" | | 1.6 | | | |
| 3/32 | | | | | | |
| 4/32 | 2/16 | 1/8" | 3.2 | | | |
| 5/32 | | | | | | |
| 6/32 | 3/16" | | 4.8 | | | |
| 7/32 | | | | | | |
| 8/32 | 4/16 | 2/8 | 1/4" | 6.4 | | |
| | 5/16 | | | | | |
| | 6/16 | 3/8" | | 9.5 | | |
| | 7/16 | | | | | |
| | 8/16 | 4/8 | 2/4 | 1/2" | 12.7 | |
| | 9/16 | | | | | |
| | 10/16 | 5/8" | | 15.9 | | |
| | 11/16 | | | | | |
| | 12/16 | 6/8 | 3/4" | 19.0 | | |
| | 13/16 | | | | | |
| | 14/16 | 7/8" | | 22.2 | | |
| | 15/16 | | | | | |
| | 16/16 | 8/8 | 4/4 | 2/2 | 1" | 25.4 |



| FEET | METERS |
|------|--------|
| 1 | .305 |
| 2 | .610 |
| 3 | .914 |
| 4 | 1.219 |
| 5 | 1.524 |
| 6 | 1.829 |
| 7 | 2.134 |
| 8 | 2.438 |
| 9 | 2.743 |
| 10 | 3.048 |
| 25 | 7.620 |
| 30 | 9.144 |
| 35 | 10.668 |
| 40 | 12.192 |
| 45 | 13.716 |
| 50 | 15.240 |
| 60 | 18.288 |
| 70 | 21.336 |
| 80 | 24.384 |
| 90 | 27.432 |
| 100' | 30.480 |



ASSEMBLY TORQUE VALUES

SUGGESTED ASSEMBLY TORQUE VALUES FOR STRUCTURAL BOLTS

| Ø SIZE INCH/mm | THREADS per INCH/25mm | GRADE 5 ft - lbs | | GRADE 5 N.m | |
|-------------------|--------------------------|---------------------|------|----------------|------|
| | | DRY | WET* | DRY | WET* |
| 3/8 M10 | 16 | 30 | 23 | 40 | 30 |
| 7/16 M12 | 14 | 50 | 35 | 70 | 50 |
| 1/2 M12 | 13 | 75 | 55 | 100 | 75 |
| 5/8 M16 | 11 | 150 | 110 | 200 | 150 |
| 3/4 M20 | 10 | 260 | 200 | 353 | 270 |
| 1 1/4 M30 | 7 | 1120 | 840 | 1520 | 1140 |
| #12 TEK 3 | 14 | 7.7 | - | 10.5 | - |
| #12 TEK 5 | 24 | 12.5 | - | 17 | - |

* Lubricant

SQUARING A FOUNDATION

IMPORTANT

Depending on the size of your building, you may need a qualified contractor or surveyor to lay out the foundation of your building to ensure that it is straight and square.

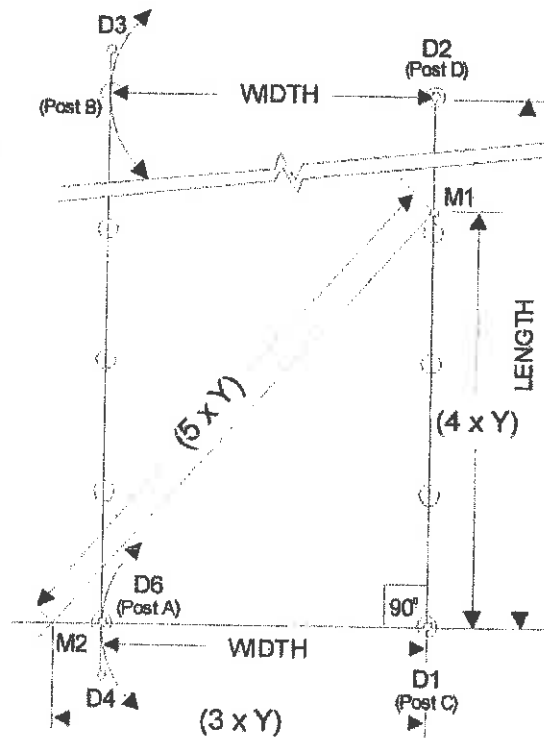
The following is a suggested method only.
BRITESPAN is not responsible for foundations.

1. Measure and string a straight line the exact length of the building (D1-D2).
2. Attach a measuring tape to stake D2 and measure the exact width of the building perpendicular to line D1-D2. Make an arc in the dirt at that exact measurement. Repeat this procedure at stake D1 and make a second arc.
3. String an extended line (D3-D4) at the crowns of these two arcs. Recheck width measurements.

USING THE 3-4-5 METHOD TO SQUARE THE FOUNDATION

4. With the measuring tape still attached to stake D1, measure the distance (4 x Y) from stake D1 towards stake D2 and place a stake (M1). See chart this page for a suggested value for Y for your building.
5. With the measuring tape still attached to stake D1, measure the distance (3 x Y) through the crown of the arc, and past line D3-D4, to M2.
6. With a second tape attached to stake M1, measure the distance (5 x Y) to M2.
7. Keeping the tapes tight, cross the two tapes at exactly the (3 x Y) measurement and the (5 x Y) measurement and hold in position. Place a stake (D6) exactly where line D1-M2 crosses line D3-D4. Remove stake M2.
8. Follow the linear and diagonal measurement checks beginning on Page 6 of this manual.

| SERIES/ SIZE | SUGGESTED Y VALUE |
|-----------------|----------------------|
| 18/20 | 7' [2.0M] |
| 22 | 8' [2.5M] |
| 26 | 9' [2.8M] |
| 30/32 | 11' [3.4M] |
| 36 | 12' [3.6M] |
| 40 | 14' [4.3M] |
| 42 | 15' [4.5M] |
| 50 | 17' [5.2M] |
| 55 | 19' [5.8M] |
| 62 | 22' [6.7M] |
| 72 | 25' [7.6M] |
| 82 | 30' [9.2M] |



Maintenance Recommendations For Buildings in Corrosive Environments

BUILDING STEEL

BRITESPAN manufactured steel components are hot dipped galvanized, hot zinc plated or coated with a high quality sealant. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building steel.
- Remove any environmental residue that accumulates on the building steel.
- Seal all surface penetration marks with a high quality sealant or a high zinc content paint.

BUILDING HARDWARE

Hardware components are made of galvanized steel or aluminum alloy; are zinc plated with an added leachant-sealant; or are zinc or cadmium plated. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from coming in direct contact with the building hardware.
- Remove any environmental residue that accumulates on the building hardware.
- Seal or protect from corrosion any non-building components that are connected to, or that come in contact with, the building hardware.

ANCHOR BOLTS *It is recommended that the building owner/operator:*

- Seal the exposed anchor bolt threads with a high quality sealant or a high zinc content paint.

FABRIC LASHING WINCHES *It is recommended that the building owner/operator:*

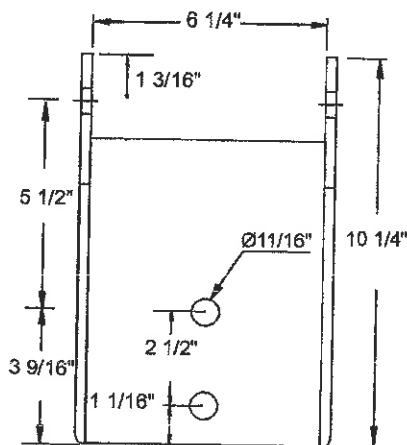
- Spray the lashing winches with a moisture displacing filming lubricant. (WD40 or equivalent)

FABRIC *It is recommended that the building owner/operator:*

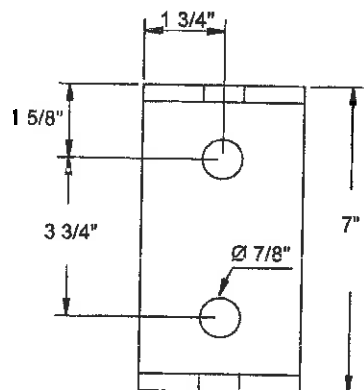
- Prevent corrosive material or product from resting against or covering the building fabric.
- Remove any environmental residue that accumulates on the building fabric. Where moisture will not contribute to corrosion – wash with water and non-abrasive soap.

MOUNTING TEMPLATES

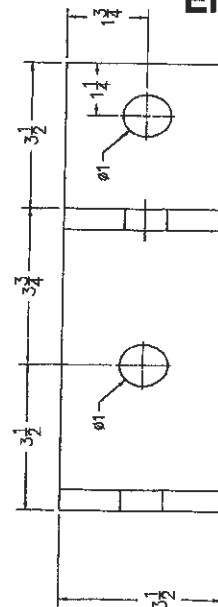
PLATE



COMMON BOOT



END BOOT



BUILDING ENDWALLS

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

FABRIC END WALLS must be supported by a framework that is constructed to meet wind load ratings and building safety standards.

If you are constructing a framework for BRITESPAN supplied fabric end panels the framework MUST BE DESIGNED to match the fastening system of the fabric end panel and must be constructed to meet wind load ratings and building safety standards per engineer's requirements.

Failure to comply with the above can result in damage to the building and will void fabric end panel warranty.

Contact a structural engineer or your local BRITESPAN representative for details.

SUSPENDING OBJECTS AND SERVICES IN BUILDING

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

RULE # 1

Always suspend weighted objects and services from the arches. Use dedicated brackets and hardware and attach to the lower truss cord only - do not use building brackets or hardware and never use the truss webbing as an attachment point. Wherever possible, use clamps to avoid drilling or piercing the lower truss cord. Any suspended objects must be approved by a licensed engineer. If this is not done it may void the building warranty.

RULE #2

Do not suspend weighted objects, services or building operation components from the purlins. The purlins act under compression when wind and snow loads affect the building. Added weight to a purlin can cause it to react unevenly and fail when wind and snow load forces are applied.

If suspensions mid-arch are necessary, use a separate purlin dedicated to the suspension. In some cases a tensioned cable in conjunction with the standard purlin can be used to offset the weight of the suspended object. Four inch (100mm) diameter purlins are capable of supporting weighted objects and services and in some cases can be substituted for standard purlins.

Exceptions for suspensions from purlins can include:

- > Lightweight aluminum and plastic roof vents
- > Simple lighting services without ballasts or transformers
- > Electrical conduit and wiring
- > Control cables

IMPORTANT- always use clamps or ties - DO NOT drill or pierce purlins

Contact a structural engineer or your BRITESPAN representative for assistance.

FOR TECHNICAL ASSISTANCE CALL YOUR LOCAL DEALER, SALES REPRESENTATIVE OR 1-800-367-1666



37651 Amberley Road
Lucknow, Ontario Canada N0G 2H0
www.britespanbuildings.com

BRITESPAN Building Systems Inc.
 37651 Amberley Road
 Lucknow, ON
 N0G 2H0
 www.britespanbuildings.com



Phone: (519) 528-2922
 Fax: (519) 528-2890
 Email: warranty@britespanbuildings.com

ONLINE WARRANTY REGISTRATION

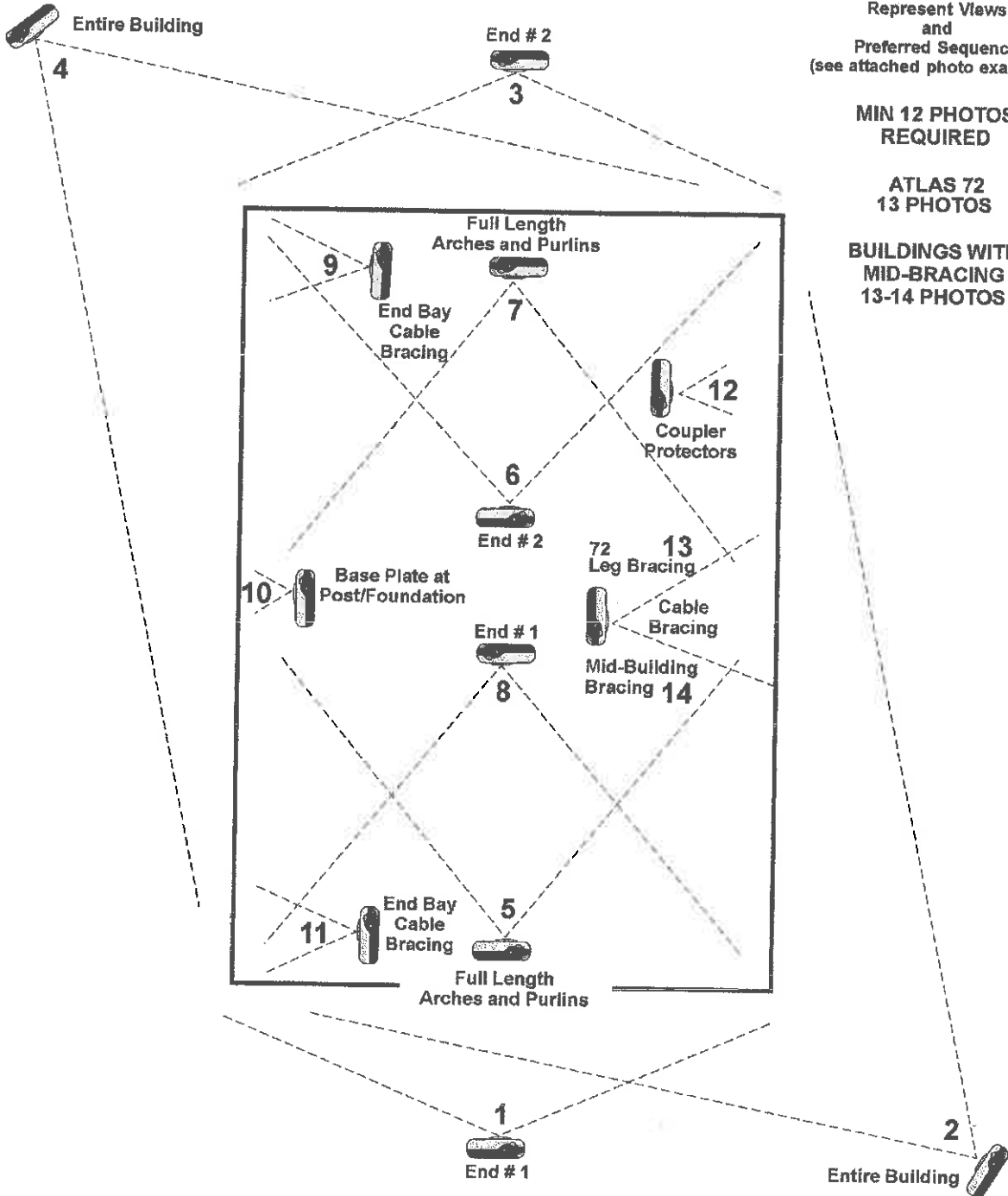
Please go to www.britespanbuildings.com and select warranty tab. Complete all registration information boxes (similar to form below). Attach all photos requested and submit. Please ensure photos are clear and are in the view and sequence shown in the attached examples.

| | | | |
|---|--|--|--|
| 1. Owner Name | | Business / Company Name | |
| 2. Mailing Address | | Agent / Representative Title | |
| 3. City / Town | | 4. Prov/State | |
| 5. Phone | | 6. Website | |
| 7. () Home Phone | | 8. () Work Phone | |
| 9. Postal Code | | 10. Country | |
| 11. The Building Address is the same as above <input type="checkbox"/> If not, provide the building address | | | |
| 12. Building Size (w x l) | | 13. # of Enclosed Ends | |
| 14. SO# | | 15. Date Warranty Registration Submitted | |
| 16. Date of Purchase | | 17. Name of Dealer Purchased from | |
| 18. Building Application: | | 19. Dealer Invoice Number | |
| 20. The Building foundation was | | Primary Use: | |
| 21. The Building steel was | | Industry | |
| 22. The Building cover was | | Self-Installed Dealer Installed Other | |
| 23. The end frame(s) were | | Name of Contractor is required | |
| 24. The end(s) fabric were | | | |
| 25. Did you receive the Steel and Fabric and Warranty? | | Yes No | |
| 26. Did you receive Building Maintenance information located in owner/installation manual? | | | |
| 27. Did you ask the installer or Dealer for instructions on how to perform Building Maintenance procedures? | | | |
| Comments | | | |

Allow 90 days from date of registration submitted for Processing and Warranty Evaluation of photos. If you are not emailed a Warranty Certificate within this time frame please contact you BRITESPAN Representative. Use the building SO# as your trace number. Note: Warranty only valid with warranty registration and required photos. See attached for



BRITESPAN Warranty Photo Registration



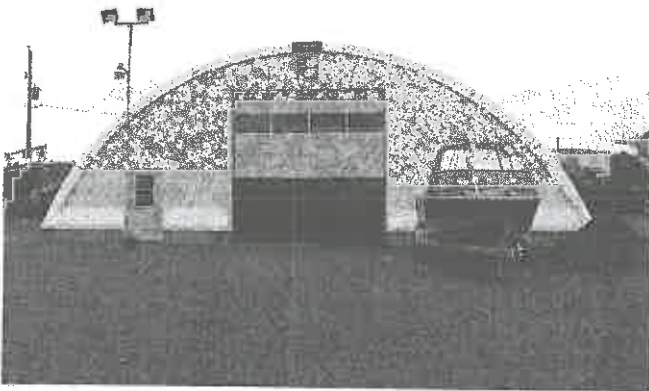
NUMBERS
Represent Views
and
Preferred Sequence
(see attached photo examples)

**MIN 12 PHOTOS
REQUIRED**

**ATLAS 72
13 PHOTOS**

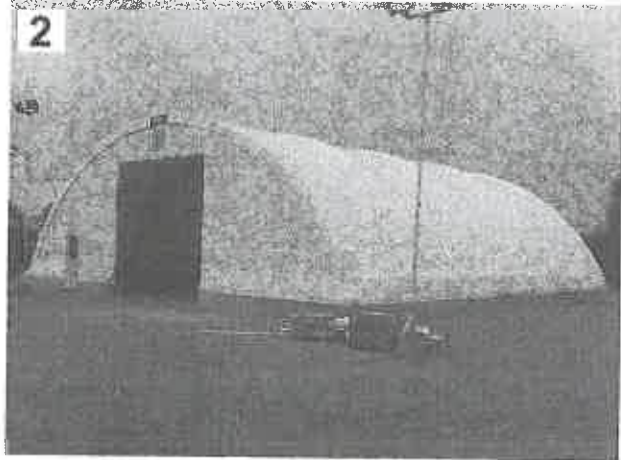
**BUILDINGS WITH
MID-BRACING
13-14 PHOTOS**

1

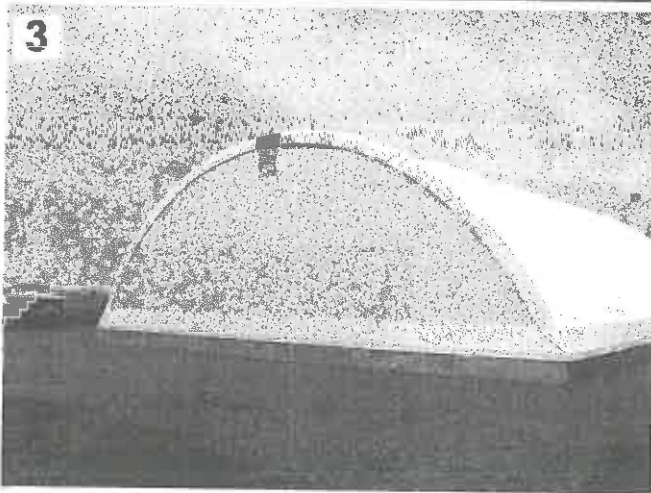


REQUIRED VIEWS

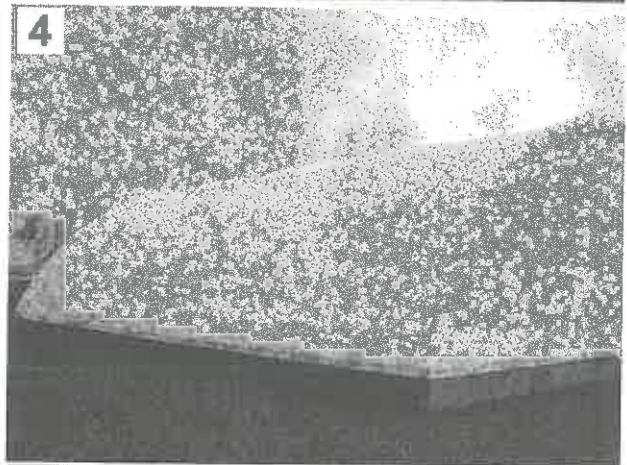
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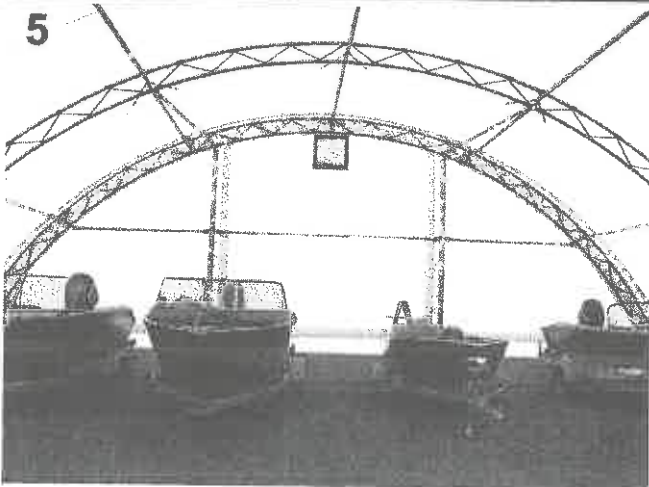
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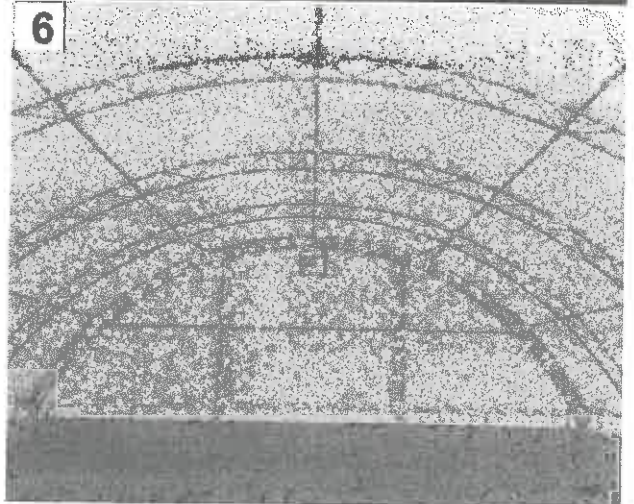
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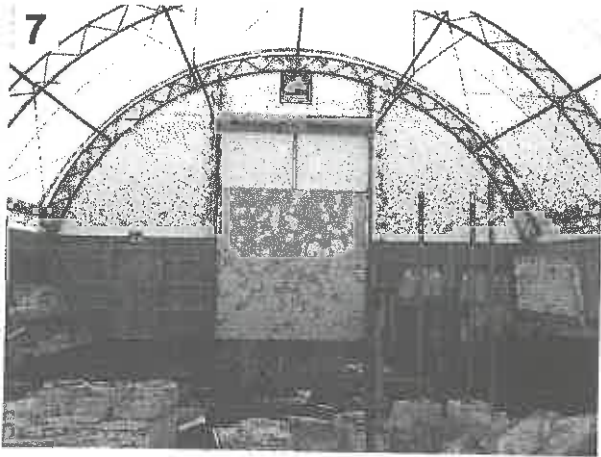


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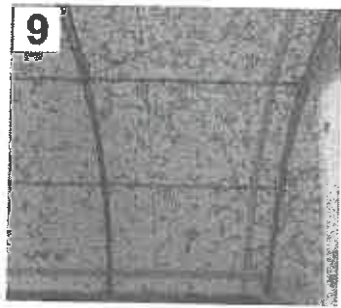
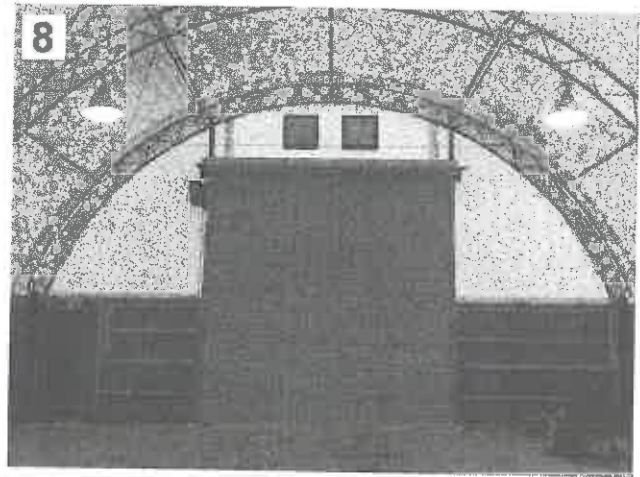


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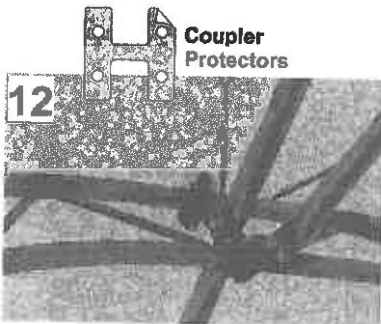
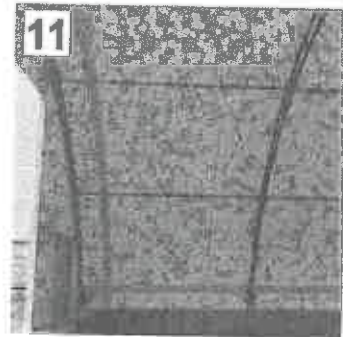
REQUIRED VIEWS



Must See Swivel Bolt Washer

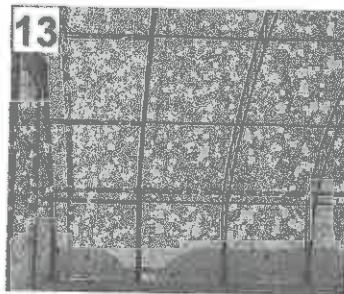
Must See 2 Anchor Bolts

Must See 2 Threaded Rods

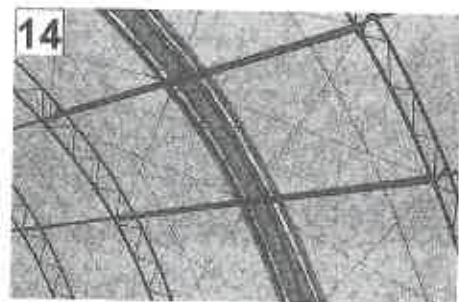


Coupler Protectors

65 and 72



65 and 72 Building Leg Bracing



Mid-Building Bracing



LIMITED WARRANTY

SCOPE OF LIMITED WARRANTY

Only the building components manufactured by BRITESPAN Building Systems Inc. and described in this agreement are warranted for manufacturer defects to the building owner.

This warranty is only valid if and when:

- i) Warranty has properly been registered by an authorized BRITESPAN Building Systems Inc. dealer as per the instruction in the building kit and,
- ii) BRITESPAN Building Systems Inc. receives written notice and proof of claim (photos where possible) of any manufacturers defects during the period of warranty coverage.

Resolve of the structural defect(s) may be through the supply of new, used or rebuilt parts, or on-site repair, at the option of BRITESPAN Building Systems Inc. If BRITESPAN Building Systems Inc. chooses to repair or replace the defective product or component, BRITESPAN Building Systems Inc. shall be allotted reasonable time to do so.

This warranty includes the explicit warranty of BRITESPAN Building Systems Inc. There are no other warranties expressed or implied. This warranty is made and is not to be replaced by any warranties of marketability or suitability for a particular purpose. Warranty specifications are applicable to units sold and erected in Canada and the United States only. Warranty may vary outside of those areas. Please contact your local authorized BRITESPAN Building Systems Inc. representative for more details.

WARRANTY REGISTRATION

Follow all of the instructions for the online warranty registration found in this manual and at www.britespanbuildings.com. All warranty registrations must be submitted for registration review within 60 days of building installation. A certificate of warranty will be issued to your local authorized BRITESPAN Building Systems Inc. representative once all of the requirements have been met for registration and approved by BRITESPAN Building Systems Inc.

A warranty certificate may be withheld if the building or any components are not assembled in accordance with the installation procedures indicated in the installation manual. A warranty certificate will be issued upon correction of identified deficiencies supported with new photographs to complete the verification.

If the building changes ownership, the new owner must apply for a warranty transfer to assume remaining years of warranty on the existing structure(s). Contact your local authorized BRITESPAN Building Systems Inc. dealer to obtain a transfer of warranty package. A one-time per transfer fee may apply.

STANDARD LIMITED WARRANTY COVERAGE PERIODS:

| TABLE 3-1: STANDARD PRO-RATED WARRANTY COVERAGE PERIOD (YEARS) | |
|---|--------------------------|
| COMPONENT | ATLAS18 / ATLAS24 |
| MAIN STRUCTURE COVER (NON-FR) ⁽⁴⁾ | 16 |
| MAIN STRUCTURE COVER (FR) ⁽⁴⁾ | 10 |
| END FABRIC (NON-FR) ⁽⁵⁾ | 3 |
| END FABRIC (FR) ⁽⁵⁾ | 3 |
| MAIN STEEL FRAMEWORK ⁽²⁾ | 5 |
| END STEEL FRAMEWORK (HSS) ⁽³⁾ | 5 |

* Building needs to be installed by factory trained, approved and qualified personnel.



LIMITED WARRANTY

NOTES ON LIMITED WARRANTY COVERAGE PERIODS

- All repair or replacement costs are pro-rated as per table 3-1 on page one of this document. (1)
- Consists of main building trusses, purlins and manufactured brackets (2)
- Consists of vertical columns, horizontal members, and manufactured brackets. Does not include cables or fasteners. (3)
- Consists of main building cover panels only. Does not include any fastening system components (4)
- Consists of end enclosure panels only (standard FR & non-FR fabrics only). Does not include any fastening system components. End enclosure panels must be properly supported by a BRITESPAN Building Systems Inc. end support system or an alternative system designed and engineered to match the end panel fastening system. The alternative system must also meet site wind load and building safety requirements as per engineer requirements. (5)

STANDARD TERMS OF LIMITED WARRANTY COVERAGE

Should any components be found to have manufacturer's defects under normal use, the defect(s) will be repaired or the components replaced, at the discretion of BRITESPAN Building Systems Inc. The building owner will be responsible for the cost of the repair or replacement parts pro-rated per year following the original purchase date, plus the cost of delivery and installation of replacement parts, if required. All replacement parts are F.O.B. Lucknow, Ontario, Canada. Any parts requiring replacement under this warranty are subsequently warranted only for the remaining time period of the unexpired portion of the warranty that is applicable to the original product.

Due to continual product development, over time certain fabric colours or steel components may become unavailable. In those incidents, BRITESPAN Building Systems Inc. reserves the right to substitute replacement components with those that are comparable in function, quality, and price to the original. BRITESPAN Building Systems Inc. is not responsible nor liable if the replacement component varies in appearance from the original.

LIMITS AND RELEASE OF LIABILITY

This warranty does not apply to defects or damages resulting from a) improper installation and/or installation that is not in accordance with BRITESPAN Building Systems Inc. installation manuals and procedures; b) improper or inadequate maintenance of the structure; c) any modification or alteration of the product; d) misuse, neglect, or abuse of the product; e) accident; f) repair or alteration by an unauthorized BRITESPAN Building Systems Inc. dealer; g) integration of products or accessories not manufactured specifically for use in a BRITESPAN Building Systems Inc.; h) exposure to corrosive elements; i) corrosion resulting from structure applications, environment within the structure, and/or insufficient maintenance or any cause other than a defect in an item's described corrosion protection; j) use of abrasive cleaning methods, chemicals, or solvents; k) exposure to conditions in excess of, or not meeting, as the case may be, wind and snow load specifications for building model; l) design of foundation and/or installation and/or deficiency in the foundation; m) product upgrades; n) product recall; o) normal wear and tear; p) wear caused by multiple installations; q) storage and/or handling of building components; r) an act of God; s) This warranty does not apply to cosmetic defects or deterioration, including discolouration.

BRITESPAN Building Systems Inc. will not be liable for any damages incurred during or as a result of installation of a BRITESPAN Building Systems Inc. product, whether or not in accordance with the installation instructions. In no event will BRITESPAN Building Systems Inc., any distributor, or the selling dealer be liable for any direct, indirect, special, incidental, or consequential damages (including loss of profit, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if BRITESPAN Building Systems Inc., its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. By registering for and taking benefit of the warranty, the building owner expressly releases and discharges BRITESPAN Building Systems Inc., all distributors, and all dealers from all claims, causes of action, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the building owner ever had, now has, or may have by reason of the assembly, erection, use and/or operation of any BRITESPAN Building Systems Inc. All references to building owners, BRITESPAN Building Systems Inc., all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

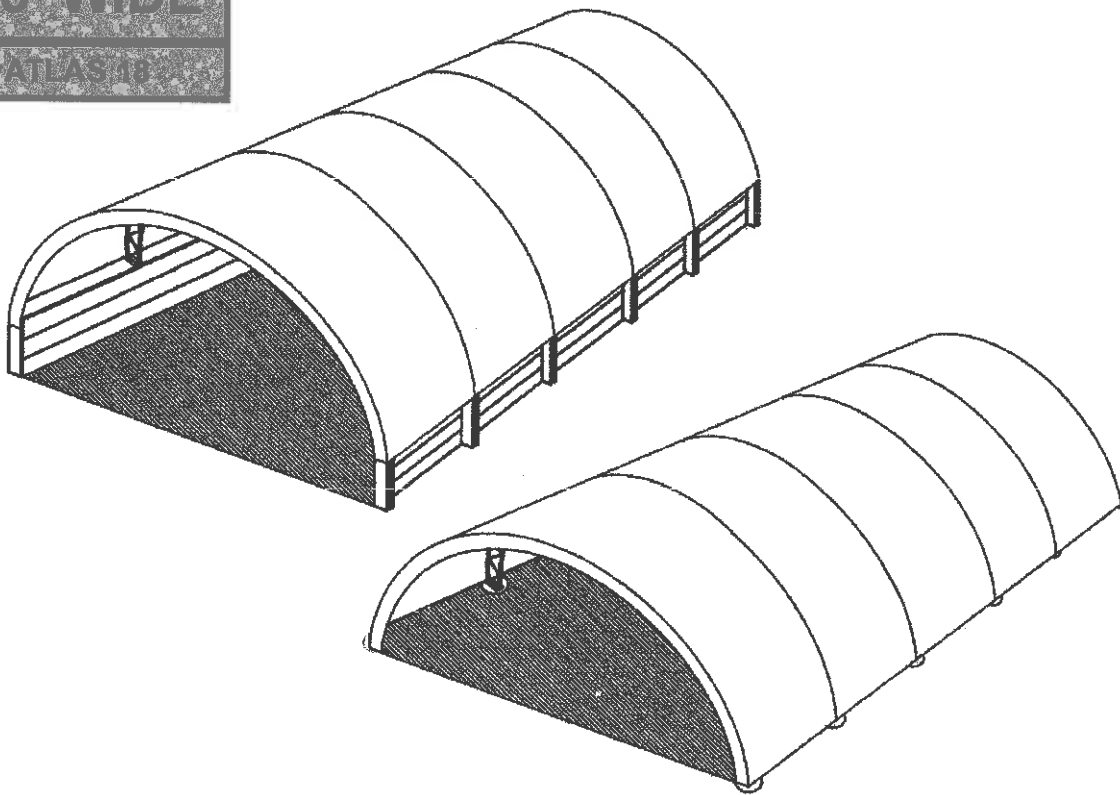
BRITESPAN Building Systems Inc. and its authorized dealers are independent businesses; authorized dealers are not agents or legal representatives of BRITESPAN Building Systems Inc. Authorized dealers have no right or authority to assume or create any legal obligation or responsibility, express or implied, on behalf of BRITESPAN Building Systems Inc., or to bind BRITESPAN Building Systems Inc. in any manner whatsoever. BRITESPAN Building Systems Inc. shall have no liability for any acts, errors, omissions, workmanship, supplies, advice, representations or misrepresentations of any authorized dealer.

BRITESPAN™

BUILDING SYSTEMS INC

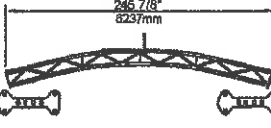
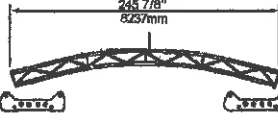
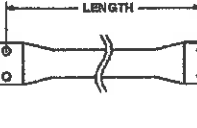

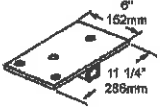
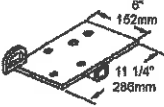

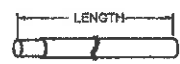
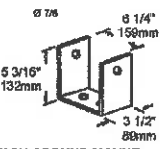
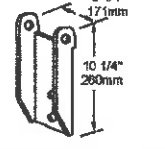
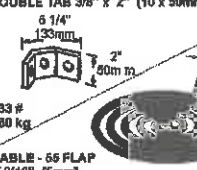

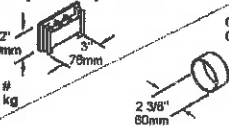
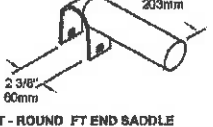

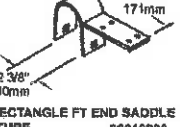

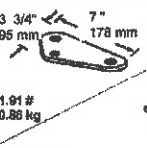
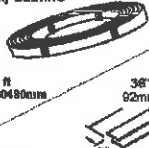




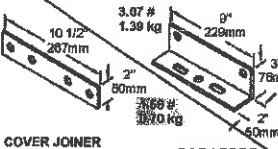














Owner / Installation Manual

Includes Warranty and Registration



**SEPARATE MANUALS
Are Supplied for
END ENCLOSURES**

Building Components

| <p>114.85 # 62.00 kg</p>  <p>TRUSS-A18 50'55' COMMON 30003032</p> | <p>113.761 # 61.60 kg</p>  <p>TRUSS-A18 50'55' END 30003037</p> |  <p>PURLIN - 14 GA</p> | <table border="1"> <thead> <tr> <th>DIA.</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>PA3.500 - 16S</td> <td>16'0" / 4877mm</td> <td>49.14 # / 22.29kg</td> </tr> <tr> <td>PA2.875 - 16S</td> <td>16'0" / 4877mm</td> <td>40.00 # / 18.14kg</td> </tr> <tr> <td>PA2.875 - 14S</td> <td>14'0" / 4267mm</td> <td>35.25 # / 15.99kg</td> </tr> <tr> <td>PA2.875 - 12S</td> <td>12'0" / 3658mm</td> <td>30.19 # / 13.69kg</td> </tr> <tr> <td>PA2.875 - 10S</td> <td>10'0" / 3048mm</td> <td>25.34 # / 11.49kg</td> </tr> <tr> <td>PA2.875 - 8S</td> <td>8'0" / 2438mm</td> <td>20.28 # / 9.20kg</td> </tr> <tr> <td>PA2.875 - 6S</td> <td>8'0" / 1829mm</td> <td>15.43 # / 7.00kg</td> </tr> <tr> <td>PA2.875 - 5S</td> <td>5'0" / 1524mm</td> <td>12.96 # / 5.87kg</td> </tr> </tbody> </table> <p>NOTE: Length = Arch Spacing</p> | DIA. | LENGTH | WEIGHT | PA3.500 - 16S | 16'0" / 4877mm | 49.14 # / 22.29kg | PA2.875 - 16S | 16'0" / 4877mm | 40.00 # / 18.14kg | PA2.875 - 14S | 14'0" / 4267mm | 35.25 # / 15.99kg | PA2.875 - 12S | 12'0" / 3658mm | 30.19 # / 13.69kg | PA2.875 - 10S | 10'0" / 3048mm | 25.34 # / 11.49kg | PA2.875 - 8S | 8'0" / 2438mm | 20.28 # / 9.20kg | PA2.875 - 6S | 8'0" / 1829mm | 15.43 # / 7.00kg | PA2.875 - 5S | 5'0" / 1524mm | 12.96 # / 5.87kg |
|---|---|--|---|--------|---------------|---------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|----------------|-------------------|-----------------|--|-------------------|--------------|---------------|------------------|--------------|---------------|------------------|--------------|---------------|------------------|
| DIA. | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA3.500 - 16S | 16'0" / 4877mm | 49.14 # / 22.29kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <table border="1"> <thead> <tr> <th>ARCH SPACING</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>16 - 861231-9</td> <td>231" / 5867mm</td> <td>6.89 # / 3.03kg</td> </tr> <tr> <td>14 - 861211-9</td> <td>211" / 5360mm</td> <td>6.40 # / 2.90kg</td> </tr> <tr> <td>12 - 861192-9</td> <td>192" / 4877mm</td> <td>6.13 # / 2.78kg</td> </tr> <tr> <td>10 - 861174-9</td> <td>174" / 4420mm</td> <td>5.87 # / 2.68kg</td> </tr> <tr> <td>8 - 861160-9</td> <td>160" / 4084mm</td> <td>5.86 # / 2.57kg</td> </tr> </tbody> </table> | | ARCH SPACING | LENGTH | WEIGHT | 16 - 861231-9 | 231" / 5867mm | 6.89 # / 3.03kg | 14 - 861211-9 | 211" / 5360mm | 6.40 # / 2.90kg | 12 - 861192-9 | 192" / 4877mm | 6.13 # / 2.78kg | 10 - 861174-9 | 174" / 4420mm | 5.87 # / 2.68kg | 8 - 861160-9 | 160" / 4084mm | 5.86 # / 2.57kg | <table border="1"> <thead> <tr> <th>ARCH SPACING</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>6 - 861145-9</td> <td>145" / 3683mm</td> <td>5.46 # / 2.47kg</td> </tr> <tr> <td>5 - 861139-9</td> <td>139" / 3531mm</td> <td>5.38 # / 2.44kg</td> </tr> </tbody> </table> | | ARCH SPACING | LENGTH | WEIGHT | 6 - 861145-9 | 145" / 3683mm | 5.46 # / 2.47kg | 5 - 861139-9 | 139" / 3531mm | 5.38 # / 2.44kg |
| ARCH SPACING | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 - 861231-9 | 231" / 5867mm | 6.89 # / 3.03kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 - 861211-9 | 211" / 5360mm | 6.40 # / 2.90kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 - 861192-9 | 192" / 4877mm | 6.13 # / 2.78kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 - 861174-9 | 174" / 4420mm | 5.87 # / 2.68kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 - 861160-9 | 160" / 4084mm | 5.86 # / 2.57kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARCH SPACING | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 - 861145-9 | 145" / 3683mm | 5.46 # / 2.47kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 - 861139-9 | 139" / 3531mm | 5.38 # / 2.44kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>CROSS CABLE \varnothing 5/16" [8mm]</p>  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3.77 # 1.71 kg</p>  <p>PLATE - SWIVEL COMMON A18 3/8" [10MM] 30003368</p> | <p>3.77 # 1.71 kg</p>  <p>PLATE - SWIVEL LEFT END A18 3/8" [10MM] 30003366</p> | <p>3.64 # 1.66 kg</p>  <p>PLATE - SWIVEL RIGHT END A18 3/8" [10MM] 30003361</p> | <p>41.52 # 18.83 kg</p>  <p>FASTENING TUBE \varnothing 2.375 [60mm] 14 GA FT2.375-245S</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>5.81 # 2.64 kg</p>  <p>BOOT COMMON GROUND MOUNT 3/8" [10mm] PLATE 30003350</p> | <p>4.02 # 1.82 kg</p>  <p>PLATE - WALL BRACKET 1/4" [5mm] PLATE 30003430</p> | <p>6.0 # 2.72 kg</p>  <p>BRACKET - CROSS CABLE DOUBLE TAB 3/8" x 2" [10 x 50mm] 30012360</p> | <p>0.15 # 0.07 kg</p>  <p>RUBBER FLAP PROTECTOR 890375</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>0.05 # 0.02 kg</p>  <p>FASTENING TUBE END PLUG 2" x 3" [50 x 76mm] PLASTIC 844191</p> | <p>2.50 # 1.13 kg</p>  <p>BRACKET - ROUND FT END SADDLE 2 3/8" [60mm] TUBE 2 7/8" [73mm] TUBE 30011238 30011278</p> | <p>1.33 # 0.60 kg</p>  <p>CABLE - 65 FLAP \varnothing 3/16" [5mm] 871116</p> | <p>1.40 # 0.63 kg</p>  <p>BRACKET - RECTANGLE FT END SADDLE 2" [53mm] TUBE 30010200 2 3/8" [60mm] TUBE 30010238 2 7/8" [73mm] TUBE 30010278</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3.84 # / 1.74 kg</p>  <p>LASHING WINCH 804073</p> <p>RIGHT HAND 804073</p> <p>LEFT HAND 804074</p> | <p>3.04 # 1.38 kg</p>  <p>BRACKET - WINCH MOUNT 320 END 30012340</p> | <p>1.8 # / 100 # 0.76 kg / 30480mm</p>  <p>1" [25mm] BELTING 804196</p> | <p>0.01 # 0.01 kg</p>  <p>FULL COUPLER PROTECTOR 830700</p> <p>HALF COUPLER PROTECTOR 830900</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>2.80 # 1.27 kg</p>  <p>COVER</p> <p>Buildings Over 144' / 44M</p>  <p>EXTRUSION 3/8" [95mm] 850336</p> | <p>3.07 # 1.39 kg</p>  <p>COVER JOINER - EXTRUSION - 220 30012220</p> <p>3.68 # 1.67 kg</p>  <p>COVER JOINER - EXTRUSION - 320 30012320</p> | <p>0.83 # 0.38 kg</p>  <p>RED ROD 5/8" x 12" 0.83 # M18 x 300mm 0.38 kg 800400</p> <p>0.83 # 0.38 kg</p>  <p>HEX BOLT 1/2" x 2" M12 x 100mm 800813</p> <p>0.83 # 0.38 kg</p>  <p>WASHER - FLAT - 1/2" [M12] 803154</p> <p>0.83 # 0.38 kg</p>  <p>NUT - 1/2" [M12] 803153</p> <p>0.80 # 0.36 kg</p>  <p>CARB BOLT 1/2" x 4" M12 x 100mm 800920</p> <p>0.80 # 0.36 kg</p>  <p>COVER END JOINER 36" END FLAP 30012326</p> <p>804510</p> | <p>0.80 # 0.36 kg</p>  <p>1/4" FENDER WASHER 6mm 802060</p> <p>0.80 # 0.36 kg</p>  <p>3/16" PIPE CLIP 3mm 802005</p> <p>0.80 # 0.36 kg</p>  <p>3/8" MAG CHUCK DRIVER 10mm 804100</p> <p>0.80 # 0.36 kg</p>  <p>PVC CLUE 804520</p> <p>0.80 # 0.36 kg</p>  <p>#12-14 x 1 1/4" (Tek 3) #12-14 x 92mm 803040</p> <p>0.80 # 0.36 kg</p>  <p>3/16" MAG CHUCK DRIVER 8mm 804509</p> <p>0.80 # 0.36 kg</p>  <p>RTV SILICONE 804509</p> <p>0.80 # 0.36 kg</p>  <p>LUBRICANT OR BENLÉE WINTERGEL 804508</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |



IMPORTANT – READ MANUAL FIRST

Improper Site Preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

MAINTENANCE SCHEDULE

Failure to comply with this maintenance schedule will invalidate the warranty.

A. INSTALLATION ADJUSTMENT

1. The cover of your Atlas building may relax after installation. The fabric is designed to be under tension at all times to prevent wear and ensure a long life. Adjust the cover over the entire building to remove as many wrinkles and creases and bagging as possible. For most buildings 35 - 45 ft. lbs [48 - 60 N.m] of torque provides adequate cover tension. Adjust the end winches until the fastening pipe is level. Re-tension end flaps.

NOTE: *Building covers installed during cooler weather tend to relax more than covers installed during warmer weather. If your cover was installed in cooler weather recheck its tightness on the first available warm sunny day.*

B. INSTALLATION INSPECTION - 1 WEEK MAINTENANCE

1. Cover - ensure the cover straps are secure and the cover is tensioned. For most buildings 35 - 45 ft. lbs [48 - 60N.m] of torque provides adequate cover tension. Adjust cover tension as required..
2. Belting - check for premature belting wear and ensure tightness.
3. End Flaps - ensure the flaps remain tight and securely fastened.
4. Aprons - ensure the aprons are securely fastened.
5. Cables - ensure the cables are tensioned according to the installation instructions.
6. Steel - Seal all surface penetration marks with a sealant or high zinc content paint.

C. QUARTERLY MAINTENANCE

1. Repeat above "INSTALLATION INSPECTION - 1 WEEK" a minimum of 4 times per year.

D. GENERAL MAINTENANCE

1. **Cover** - Clean with water and non-abrasive soap. Do not use solvents or chemicals. Use caution when using high pressure washers.
2. **Snowfall** - Snow accumulating on the cover could indicate that the cover needs re-tensioning. Remove snow and check tension.
3. Use caution when using heavy equipment or manually clearing away avalanched snow.

E. ACCIDENTAL DAMAGE

Cover: Sharp objects can puncture and damage the cover. Do not attempt to seal or repair with conventional materials. Call your local BRITESPAN representative. They will be able to assess the damage and facilitate replacement or provide a heat-weld service if the cover is repairable.

Structure: Report and document any damage to the steel structure, components or foundation immediately. Have your local BRITESPAN representative inspect the damage and provide a comprehensive evaluation. Perform any temporary or emergency repairs as determined. Replace or repair damaged components as determined.



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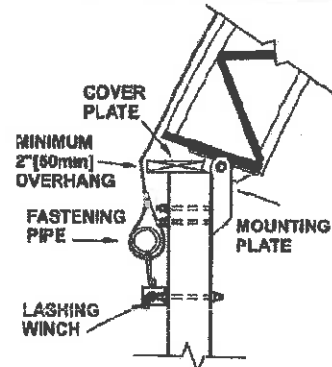
STEP 1

DETERMINE INSTALLATION TYPE

TYPE 220 INSTALLATION

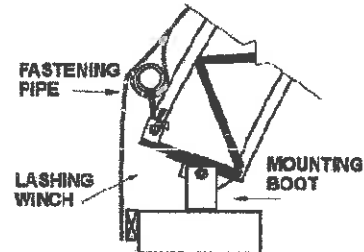


- The mounting plate is attached to the inside of the foundation and secured through the foundation.
- The cover fastening pipe is located below the mounting plate, outside the foundation, and the cover lashing winches attach to the foundation.
- A **minimum 2" [50mm] cover plate overhang is required** to keep the fastening pipe and lashing straps from contacting mounting plate hardware.
- Typically, the cover does not have a finish/seal apron.



TYPE 320 INSTALLATION

- The mounting boot attaches to the top surface of the foundation.
- The cover fastening pipe is located on the arch steel and the cover lashing winches attach to plates attached to the arch coupler plate.
- Typically the cover has an attached finish/seal apron.



Custom buildings may have variations of these two installation types. Check with your Dealer or agent for details.

STEP 2

REQUIRED EQUIPMENT

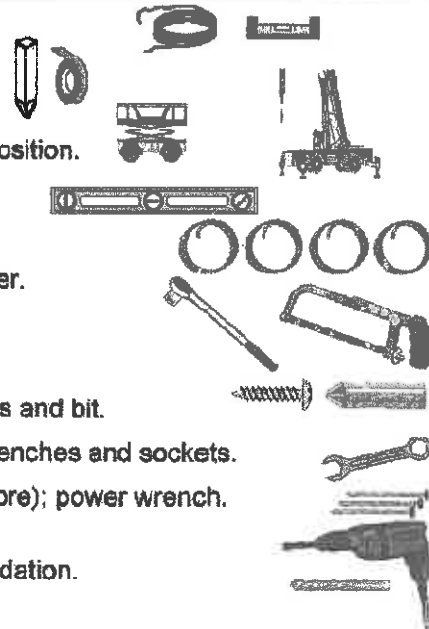
1. String and string level for alignment.
2. Stakes and tape to mark the post/pile locations.
3. Movable scaffolding or a platform lift.
4. Crane or equivalent to lift arches into the vertical position.
5. Temporary bracing - dimensional lumber or rope.
6. Square level.
7. 2 to 4 lengths of cover pull rope 100' [31M] or longer.
8. Torque wrench.
9. Hacksaw.
10. #10 x 3/4" [#10 x 20mm] round head Philips screws and bit.
11. 13/16" [21mm] - 15/16" [24mm] - 1 1/8" [29mm] wrenches and sockets.
12. **Optional** - A transit (available from a local rental store); power wrench.

TYPE 220 Installation

13. Drill and \varnothing 5/8" [16mm] drill bit to drill through foundation.
14. 3 1/2" [90mm] spiral nails (galvanized)

REQUIRED FOR BUILDINGS OVER 144'[44M] IN LENGTH

1. Drill - Appendix A
2. Rubber mallet - Appendix A
3. Caulking gun - Appendix B



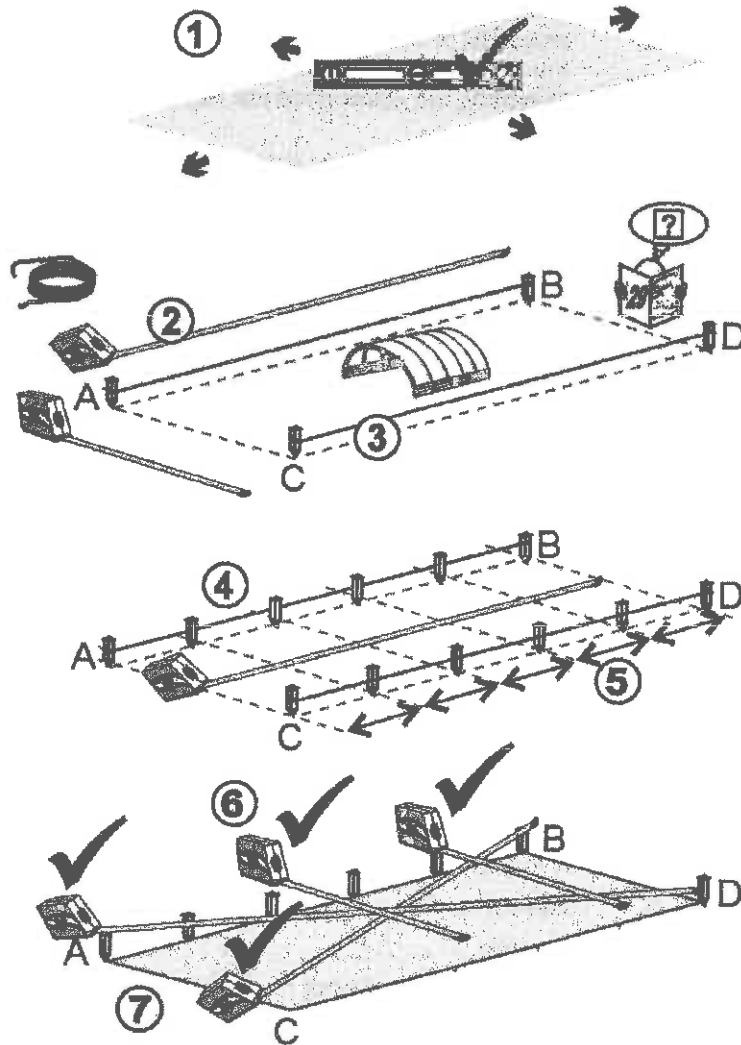
BUILDINGS OVER 144' [44M] IN LENGTH See STEP 37, Page 25

STEP 3

SITE PREPARATION

**BRITESPAN IS NOT RESPONSIBLE
FOR FOUNDATION DESIGN OR INSTALLATION.**

1. Start with a level site.
2. Measure and stake out the location of the corner posts/piles A, B, C and D. Use an accepted method to make the foundation straight and square.
See Squaring A Foundation on Page 33 for assistance.
3. String lines from A to B and from C to D.
4. Measure and stake the arch on-center intervals along the length of the building using a running measurement.
5. Check linear measurements by measuring the distance between each stake. Distance should be equal.
6. Check the width measurements the entire length of the building.
7. Check the square of the foundation by measuring diagonally. Diagonal measurements should be equal.



NOTE: Buildings over 144' [44M] in length have more than one cover. Even with this feature, the foundation continues as a running measurement for the entire length of the building.

STEP 4

CRITICAL FOUNDATION PLANNING

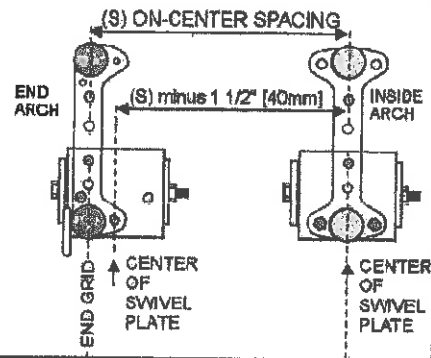
In order to maintain the correct on-center arch spacing YOU MUST INSTALL the foundation so that the end mounting brackets and boots can be safely attached 1 1/2" [40mm] inside the end grid line.

TYPE 220 and TYPE 320

End arches have half coupler plates that bolt 1 1/2" [40mm] off-center on a 5 hole end swivel plate.

The inside arches have full coupler plates and bolt to the center of the 4 hole swivel plates.

On-center arch spacing must be maintained when planning the foundation.



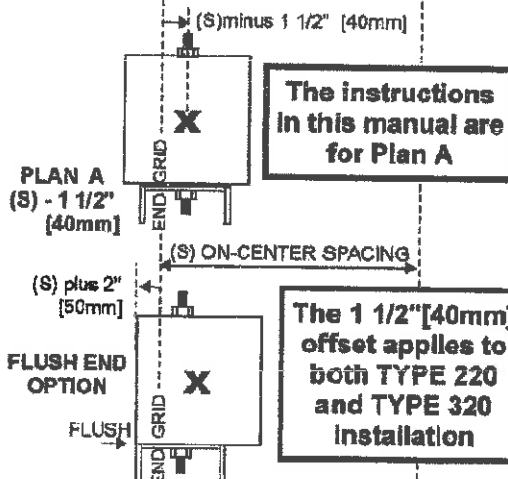
TYPE 220 INSTALLATION

PLAN A - RECOMMENDED

When you install the end posts with their centers aligned 1 1/2" [40mm] inside the end grid line the mounting bracket and swivel plate center will be positioned in the center of the post and the correct on-center arch spacing is maintained.

FLUSH END OPTION

To finish the end of the building steel flush to the outside edge of the end post **INSTALL THE EDGE OF THE POST PLUS 2" [50mm] OUTSIDE** the end grid line. The mounting bracket will be positioned flush to the edge of the post regardless of post size and the correct on-center arch spacing is maintained.



TYPE 320 INSTALLATION

PLAN A - RECOMMENDED

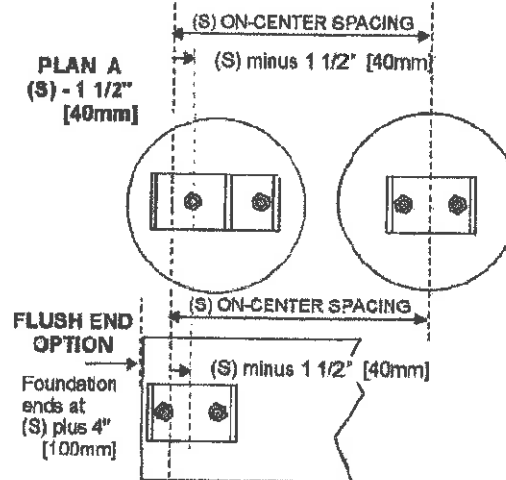
When you install the end piles with their centers aligned 1 1/2" [40mm] inside the end grid line the mounting boot and swivel plate center will be positioned in the center of the pile and the correct on-center arch spacing is maintained.

FLUSH END OPTION

To reduce the corner foundation protrusion, design the foundation so that the mounting boot can be installed as close to the edge of the foundation as allowable by the foundation's construction.

Example - Depending on anchor type - terminate the foundation at minimum (S) PLUS 4" [100mm] OUTSIDE the end grid line. Always check with a foundation engineer for appropriate anchor types and their installation requirements.

ALWAYS MAINTAIN the correct on-center arch spacing.

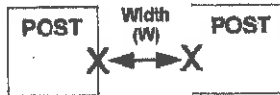


TYPE 320 INSTALLATION - Go to Page 11

TYPE 220 INSTALLATION



Inside-to-Inside Measurements

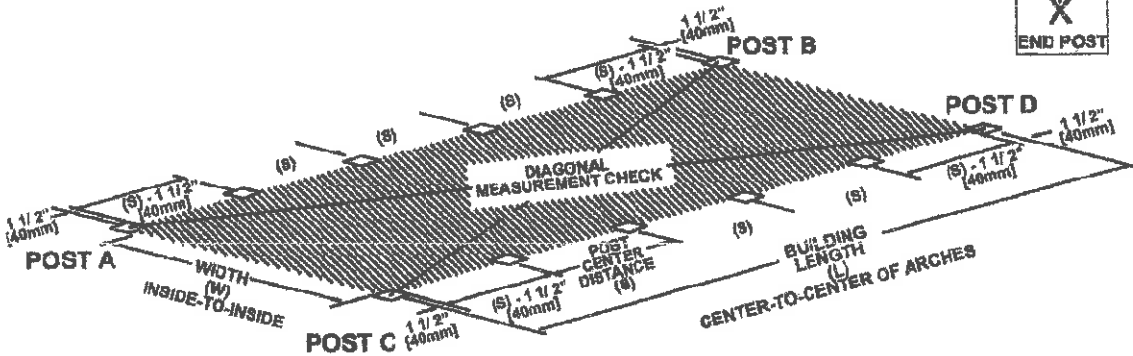


Center-to-Center Measurements

Building Length (L)

Post Distance (S)

EXCEPT END POSTS
Post Distance (S) minus 1 1/2" [40mm]



55' WIDE - ATLAS 18
IN TO IN OF POST
(W) WIDTH = 63' 2 13/16

IMPORTANT

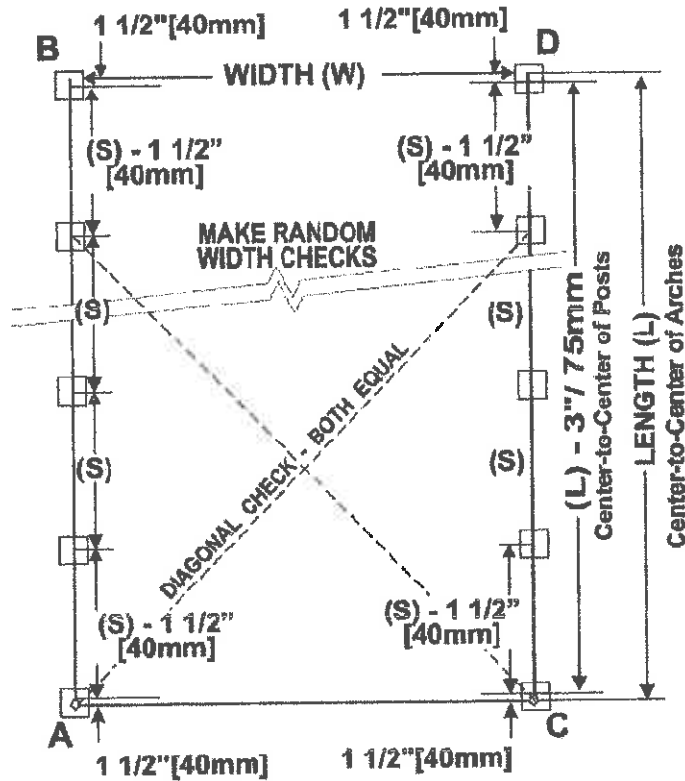
END ARCHES MOUNT 1 1/2" [40mm] OFFSET ON THE SWIVEL PLATE.

PLAN A

MEASURE AND INSTALL THE END POST CENTERS AT (S) MINUS 1 1/2" [40mm]. THIS WILL ALLOW THE END ARCH MOUNTING BRACKETS TO BE MOUNTED IN THE CENTER OF THE POST

OPTION

MEASURE AND INSTALL THE OUTSIDE EDGE OF THE END POST AT (S) PLUS 2" [50mm]. THIS WILL ALLOW FLUSH END FABRIC TERMINATION AT THE CORNERS.

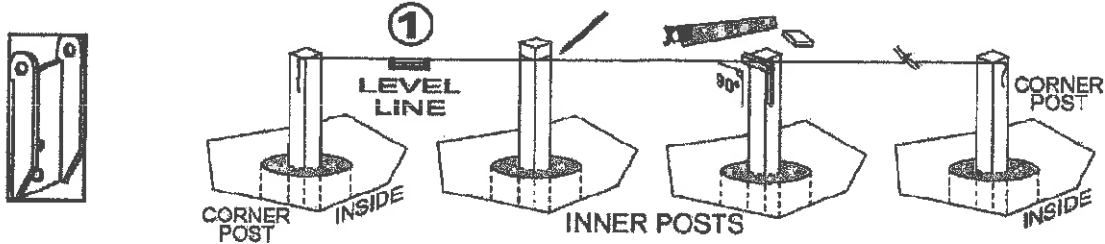


PLAN A

BUILDING ON-CENTER MEASUREMENT (S) IS AS ORDERED

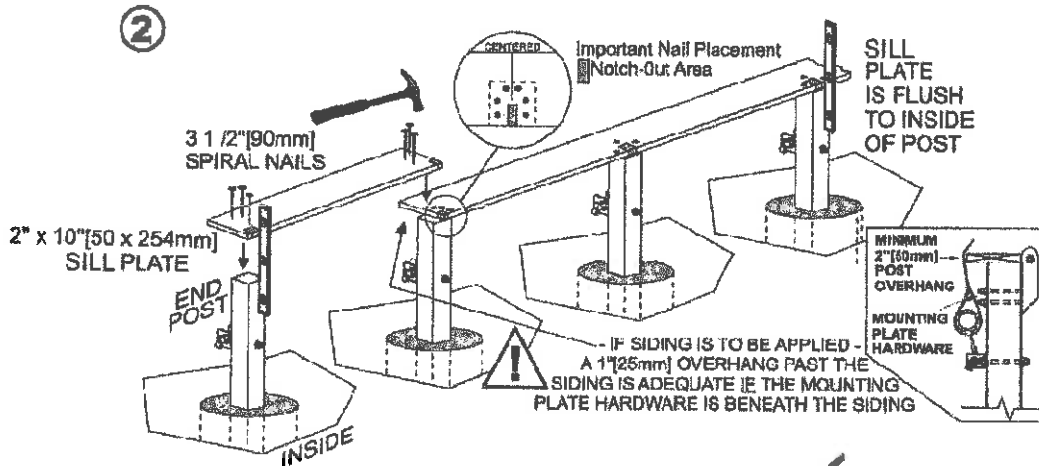
STEP 5**TYPE 220 - INSTALL THE SILL PLATE****THE 220 COVER CANNOT BE TENSIONED WITHOUT THE SILL PLATE****1. CUT POSTS TO DESIRED FINISHED HEIGHT**

Tie a string line to the corner posts and mark the cut lines on the inner posts. Cut off the tops of each post along the line.

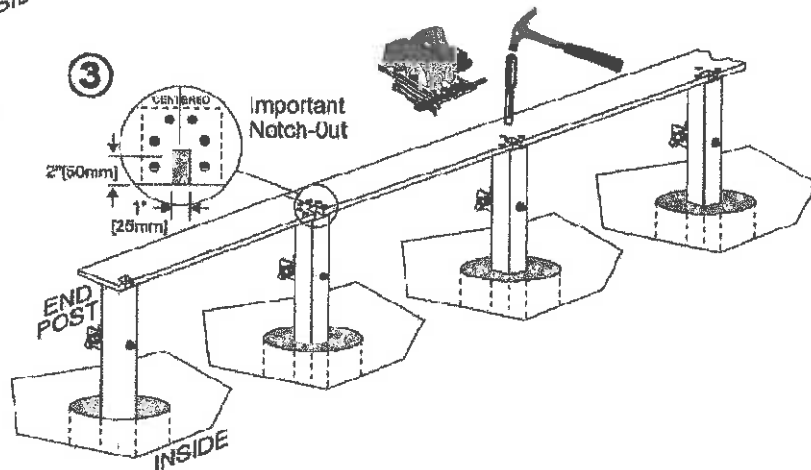
**2. INSTALL THE SILL PLATE**

Using 3 1/2" [90mm] spiral nails (not supplied), securely fasten a minimum 2" x 10" [50 x 254mm] dimensional lumber sill plate to the top of the posts.

The inside edge of the sill plate is flush to the inside of the post. A 2" [50mm] post overhang is required to keep the cover clear of the mounting plate hardware.



- 3. Cut out 2" x 1" [50 x 25mm] notches in the sill plate at the posts where the mounting plate and boot swivel will be attached.**

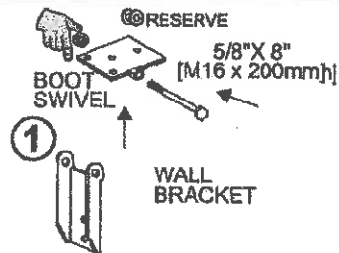


IMPORTANT:
Mounting brackets and swivels will not install properly without notch outs.

STEP 6**TYPE 220 - INSTALL MOUNTING BRACKETS**

1. Temporarily assemble one TYPE 220 mounting bracket and a 4-hole INSIDE boot swivel using a 5/8" x 8" [M16 x 200mm] bolt/washers/nut.

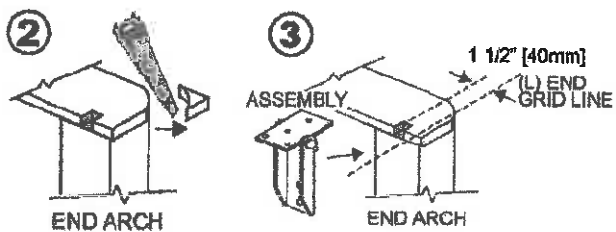
Use this drill guide assembly for drilling the mounting holes in all the posts including the end posts.



2. **END POSTS** - Trim cover plate corners to eliminate a pressure point on the corner fabric.

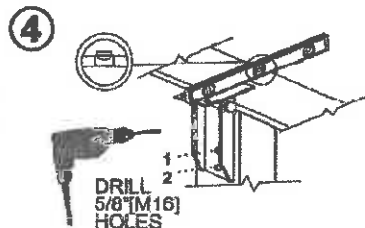
3. **END POSTS** - The center of the bracket assembly mounts 1 1/2" [40mm] inside the end grid line.

Remember - If you have not installed the end posts at (S) minus 1 1/2" [40mm], the bracket will not be centered on the post.



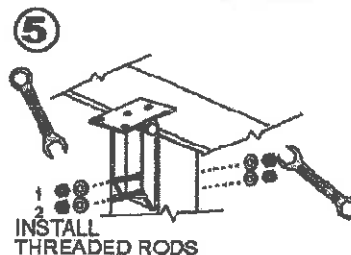
4. **INSIDE POSTS and END POSTS**
Set the drill guide assembly on the post so that the swivel plate is level and drill 2 of Ø 5/8" [M16] holes through the post.

Use the drill guide assembly to drill 2 of Ø 5/8" [M16] holes through every post.

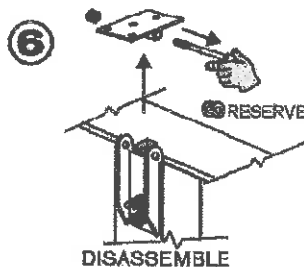


5. **ALL POSTS**
Attach brackets - not the drill guide assembly - to the posts using 2 of Ø 5/8" [M16] threaded rod/washers/nuts.

Install 2 of Ø 5/8" [M16] threaded rods every post.



6. Attach the drill guide assembly bracket on the last post and remove the boot swivel. The swivel attaches to an arch to allow a single pin assembly. See next Step 7.



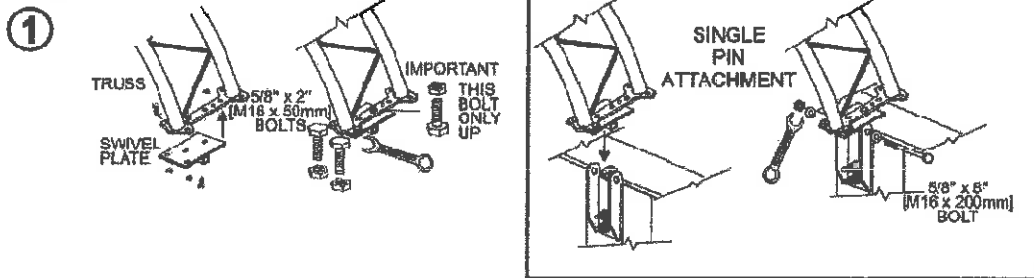
IMPORTANT
TWO threaded rods
MUST BE INSTALLED
every post.

Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 7

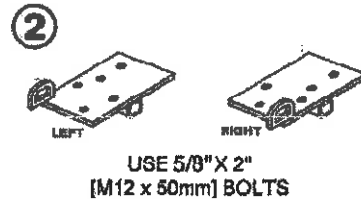
TYPE 220 - INSTALL SWIVEL PLATES

1. **INSIDE ARCHES** - Attach the 4 hole boot swivel plates to the base of the inside arches using 5/8" x 2" [M16 x 50mm] bolts/nuts. This will permit single pin attachment when installing the arches.



2. **END ARCHES** - Attach the 5 hole boot swivel plates with the welded on D-rings to the end arches using 5/8" x 2" [M16 x 50mm] bolts/nuts.

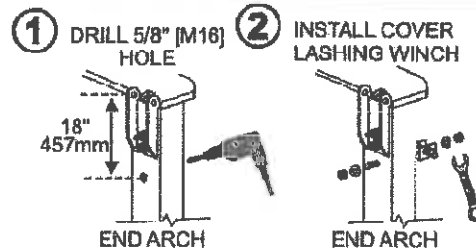
The welded D-rings are always on the **OUTSIDE** of the end of the building.



STEP 8

TYPE 220 - INSTALL COVER WINCHES

- ALL POSTS**
1. Drill a \varnothing 5/8" [M16] hole through the center of each post 18" [457mm] below the top of the post.
 2. Fasten a lashing winch to the outside of each post using 5/8" [M16] threaded rod, nuts, and washers. Tighten securely. *Mount lashing winches with the safety bar facing down.*



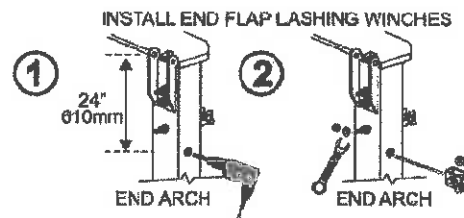
NOTE: If you are installing an eave on your building the cover lashing winches are not mounted on the posts. Cover winches are installed on the base coupler using a winch mount bracket. See STEP 23 for details.



STEP 9

TYPE 220 - INSTALL END FLAP WINCHES

- ALL CORNERS**
1. Drill a \varnothing 5/8" [M16] hole through the center of each corner post 24" [610mm] below the top of the post.
 2. Fasten a lashing winch to the outside (end) of each corner post using 5/8" [M16] threaded rod, nuts, and washers. Tighten securely. *Mount lashing winches with the safety bar facing down.*

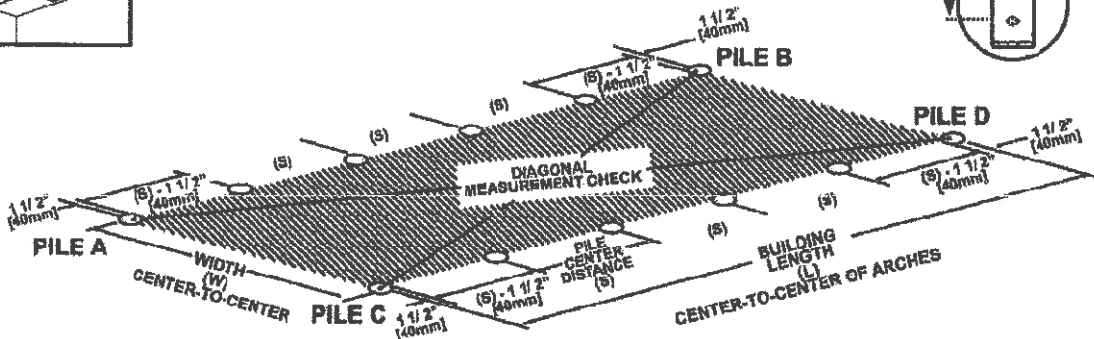
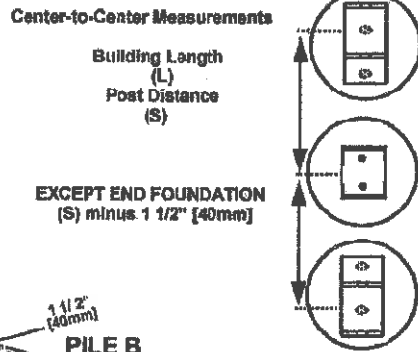
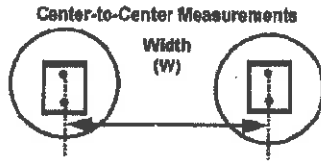
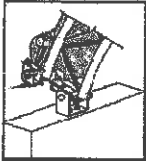
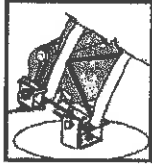


Tighten all bolts/nuts to assembly torque value- See Page 32

TYPE 220 INSTALLATION - Go directly to Page 13



TYPE 320 INSTALLATION



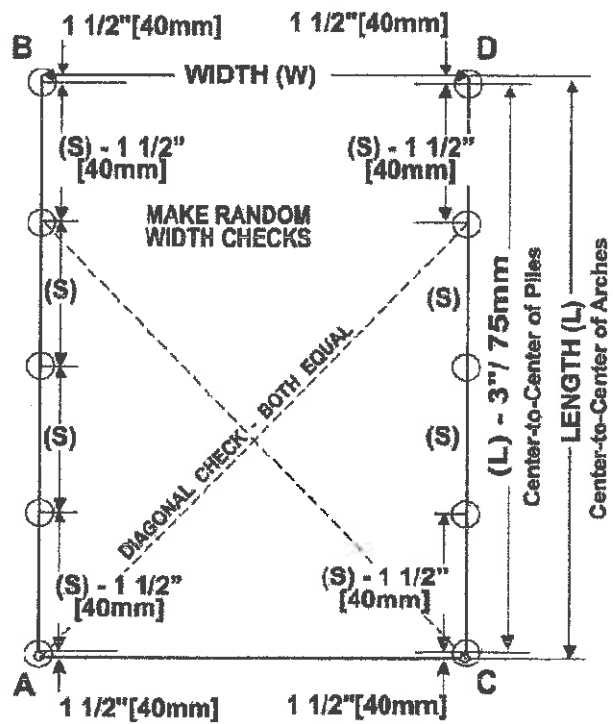
55' WIDE - ATLAS 18
C/C TO ANCHOR BOLT
(W) WIDTH = 53' 5/16"

IMPORTANT

END ARCHES MOUNT 1 1/2" [40mm] OFFSET ON THE SWIVEL PLATE.

PLAN A
MEASURE AND INSTALL THE END PILE CENTERS AT (S) MINUS 1 1/2" [40mm]. THIS WILL ALLOW THE END ARCH MOUNTING BOOTS TO BE MOUNTED IN THE CENTER OF THE PILE.

OPTION
MEASURE AND INSTALL THE OUTSIDE EDGE OF THE FOUNDATION AT (S) PLUS 4" [100mm]. TO REDUCE FOUNDATION PROTRUSION AT THE CORNERS.



PLAN A

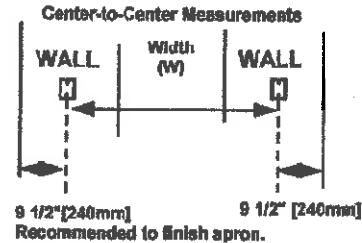
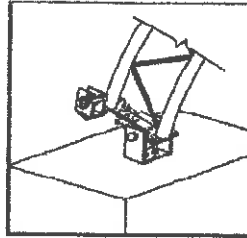
BUILDING ON-CENTER MEASUREMENT (S) IS AS ORDERED



TYPE 320 - INSTALLATION continued

WIDE FOUNDATIONS

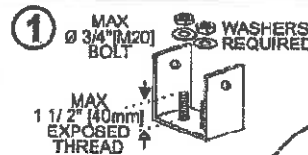
Planning the foundation so that the boot mounts 9 1/2" [240mm] from the outside edge will permit the apron to finish straight down from the cover's tensioning point.



STEP 10

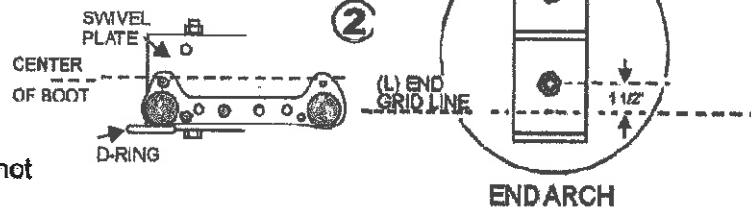
TYPE 320 - INSTALL MOUNTING BOOTS

- ANCHOR BOLTS** - Maximum \varnothing 3/4" [M20] bolts. Maximum 1 1/2" [40mm] exposed thread. Washers required. **Tighten all anchor bolts securely.**



- END ARCHES** - The center of the mounting boot mounts 1 1/2" [40mm] inside the end grid line.

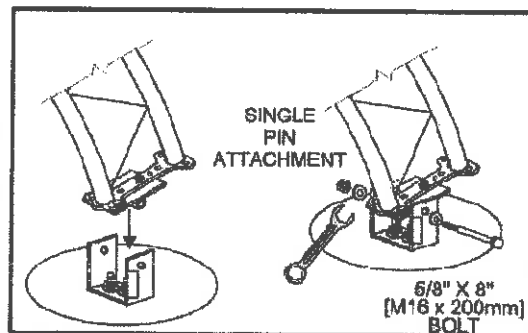
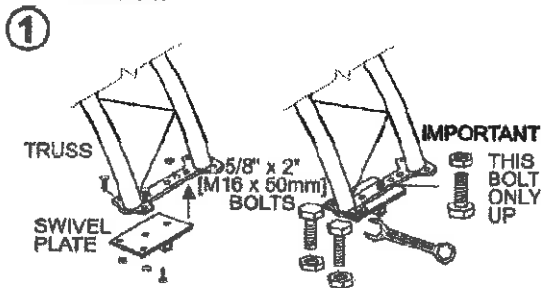
Remember - If you have not installed the end piles at (S) minus 1 1/2" [40mm], the bracket will not be centered on the pile.



STEP 11

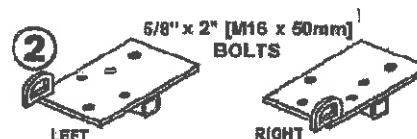
TYPE 320 - INSTALL SWIVEL PLATES

- INSIDE ARCHES** - Attach the 4 hole boot swivel plates to the base of the inside arches using 5/8" x 2" [M16 x 50mm] bolts/nuts. This will permit single pin attachment of the arches.



- END ARCHES** - Attach the 5 hole boot swivel plates with the welded on D-rings to the end arches using 5/8" x 2" [M12 x 50mm] bolts/nuts.

The welded D-rings are always on the **OUTSIDE** of the end of the building.



Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 12

ASSEMBLE THE ARCHES

IDENTIFY AND LAYOUT ARCH TRUSSES.

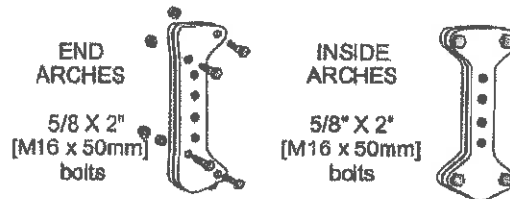
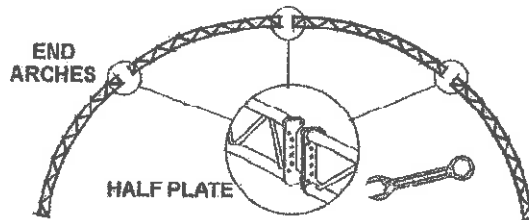
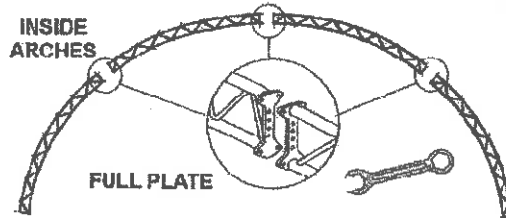
1. Identify and separate the inside trusses from the end trusses. Inside trusses have full coupler plates. End trusses have half coupler plates.

55' WIDE - ATLAS 18
Each completed arch
requires 4 truss
sections.

ASSEMBLE ARCHES

2. **END ARCHES**
4 of 5/8" x 2" [M16 x 50mm]
bolts/nuts
3. **INSIDE ARCHES**
4 of 5/8" x 2" [M16 x 50mm]
bolts/nuts

LEAVE THE 4 HOLES IN THE
CENTER OF THE COUPLER EMPTY



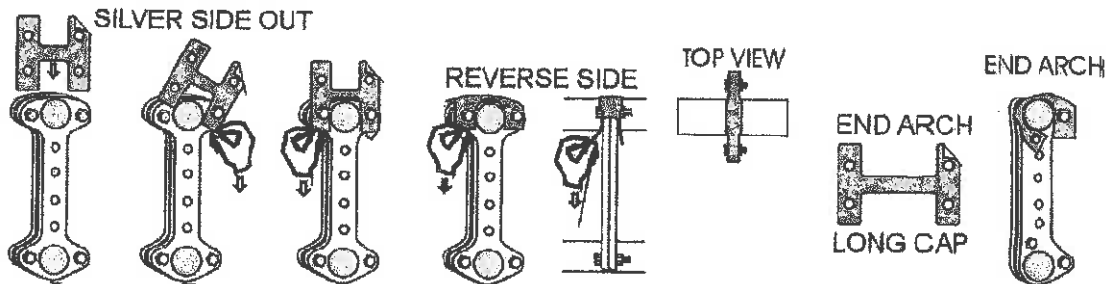
Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 13

INSTALL COUPLER PROTECTORS

The coupler protectors fit **OVER** the bolt head and nuts of the **TOP** of the **ASSEMBLED** arches. The coupler protectors **ARE REQUIRED** to protect the fabric cover.

WARNING: FABRIC DAMAGE WILL OCCUR IF NOT INSTALLED. Remove or smooth any burs or irregularities before installing.



IMPORTANT - Do not attempt to install the coupler protectors UNDER the bolts or nuts. The fabric will deform, twist and tear off.

WARNING: TRUSS WILL FAIL AND WARRANTY IS VOID IF A SPREADER

STEP 14

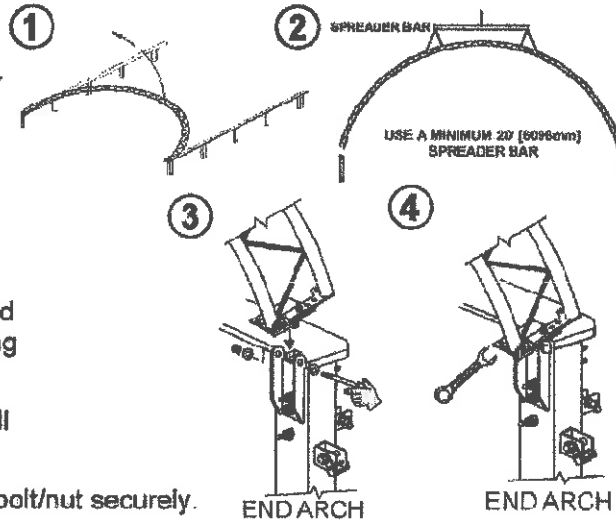
ERECT END ARCH

TYPE 220

MOUNTING BRACKETS AND SWIVELS MUST BE ATTACHED BEFORE ERECTION.

MOVE END ARCH INTO POSITION

1. Position an end arch so that the arch can be tilted upright.
2. Attach a spreader bar to the arch and elevate the truss into its upright position, and center it on top of the end posts. Use extreme caution when lifting arches.
3. Lower the arch into position and install a 5/8" x 8" [M16 x 200mm] bolt/nut.
4. Tighten the 5/8" x 8" [M16 x 200mm] bolt/nut securely.
5. Plumb and brace the arch securely using rope or dimensional lumber.

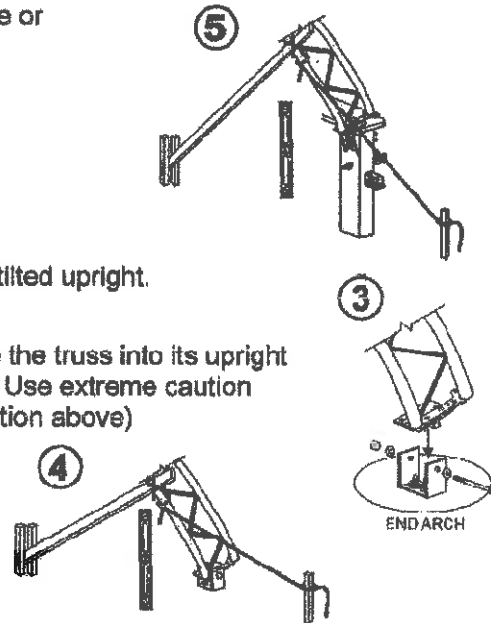


TYPE 320

MOUNTING BOOTS AND SWIVELS MUST BE ATTACHED BEFORE ERECTION.

MOVE END ARCH INTO POSITION

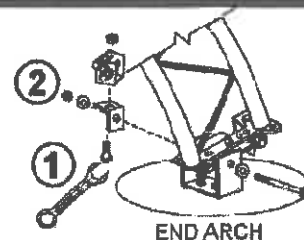
1. Position an end arch so that the arch can be tilted upright. (See ① TYPE 220 illustration above)
2. Attach a spreader bar to the arch and elevate the truss into its upright position, and center it on top of the end piles. Use extreme caution when lifting arches. (See ② TYPE 220 illustration above)
3. Lower the arch into position and install a 5/8" x 8" [M16 x 200mm] bolt/nut.
4. Plumb and brace the arch securely using rope or dimensional lumber.



STEP 15

TYPE 320 - INSTALL END FLAP WINCHES

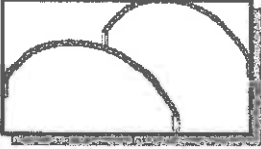
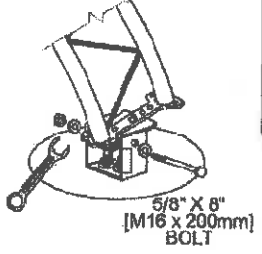
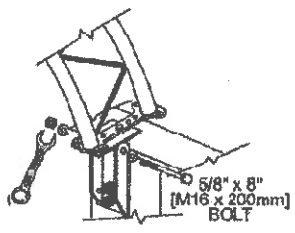
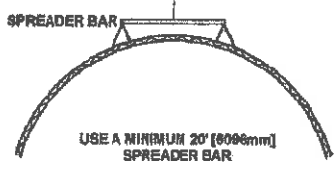
1. **End Arches Only** - Attach an end flap lashing winch to a winch mount bracket using a 5/8" x 2" [M16 x 50mm] bolt/nut.
2. Attach the bracket/winch assembly to the inside of arch boot 5/8" x 8" [M16 x 200mm] bolt. Tighten securely.



Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 16

ERECT THE NEXT ARCH

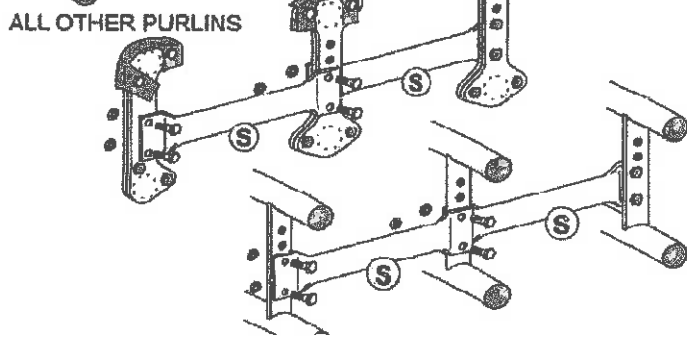
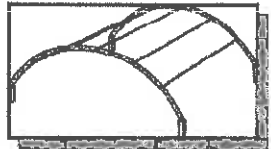
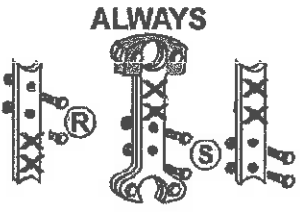
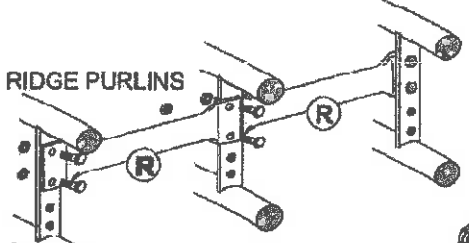


WASHERS ARE REQUIRED



STEP 17

INSTALL PURLINS



X = NO BOLTS

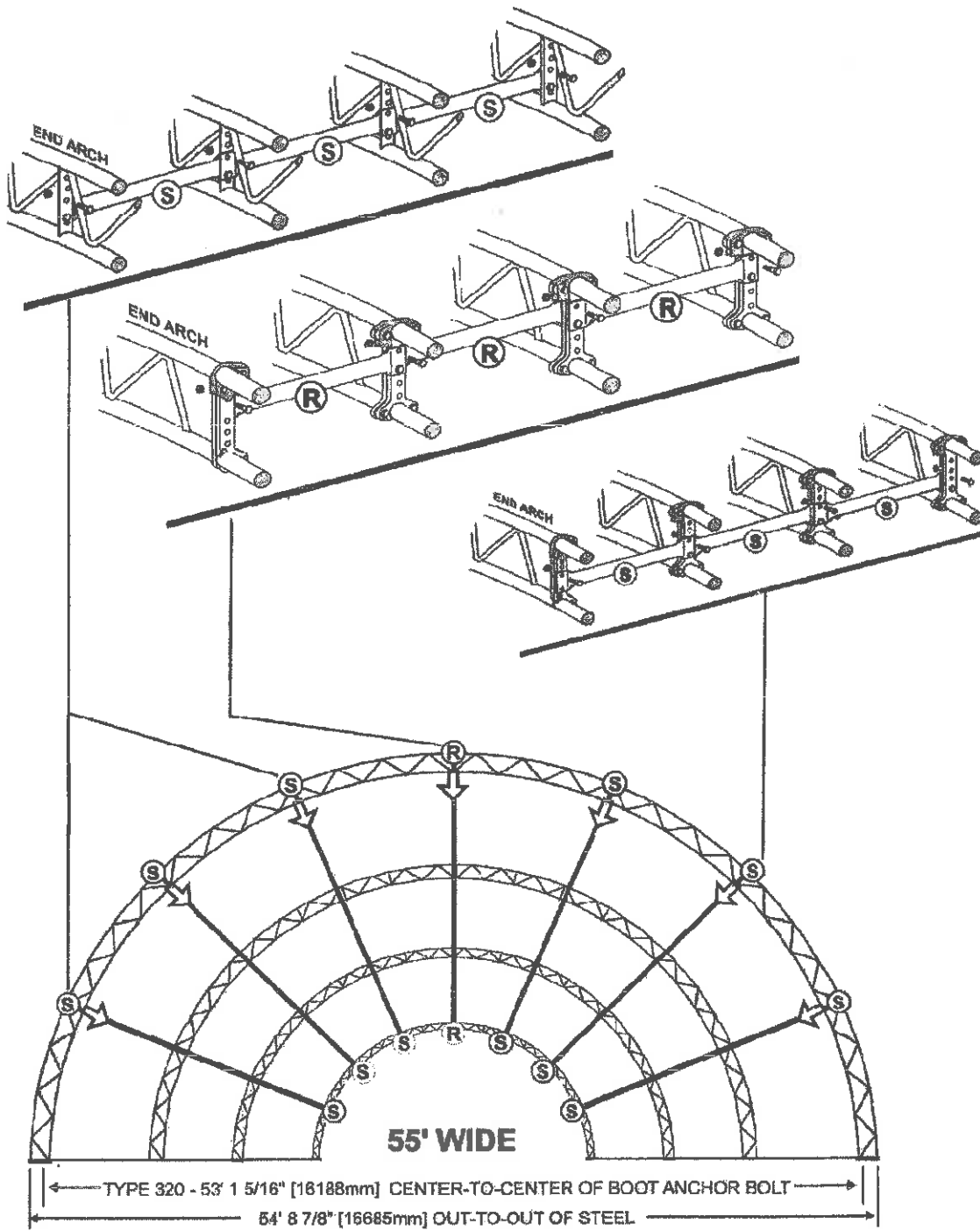
ATTACH PURLINS USING 5/8" x 2" [M16 x 50mm] BOLTS

LABOUR SAVING HINT
ARCHES WITH CROSS CABLES
Do not install CENTER HOLE bolts.
See Step 18 next page.

IMPORTANT
INSTALL ALL PURLINS BETWEEN THESE FIRST TWO ARCHES BEFORE PROCEEDING

Tighten all bolts/nuts to assembly torque value- See Page 32

55' WIDE - ATLAS 18



Tighten all bolts/nuts to assembly torque value- See Page 32

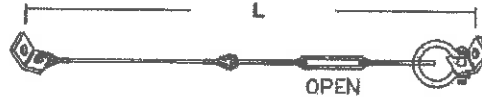
STEP 18

INSTALL CROSS CABLES

Cross cabled end arch (or arches) create a structural frame for the rest of the building.

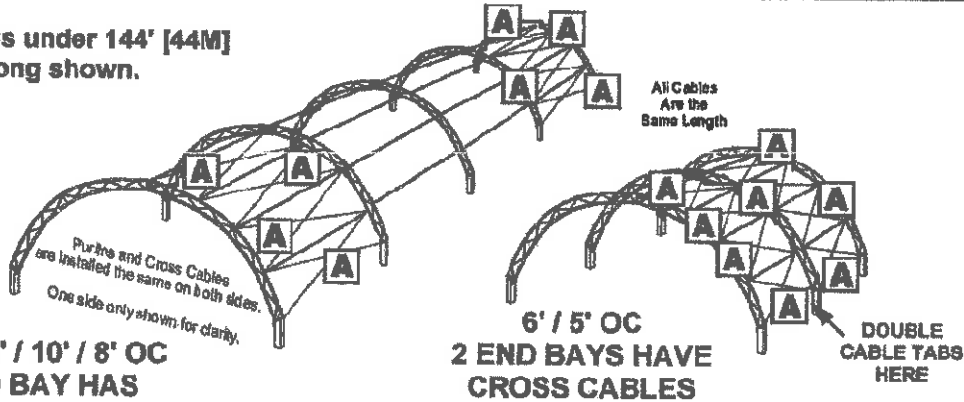
This Atlas 55 building uses 1 cable length.

Cables install in LOCATION **A**



NOTE: Arch spacing determines cable length. More than three cable lengths are supplied when any portion of the building has a different arch spacing. See Building Components, Page 1, of this manual for cable lengths for specific arch spacings.

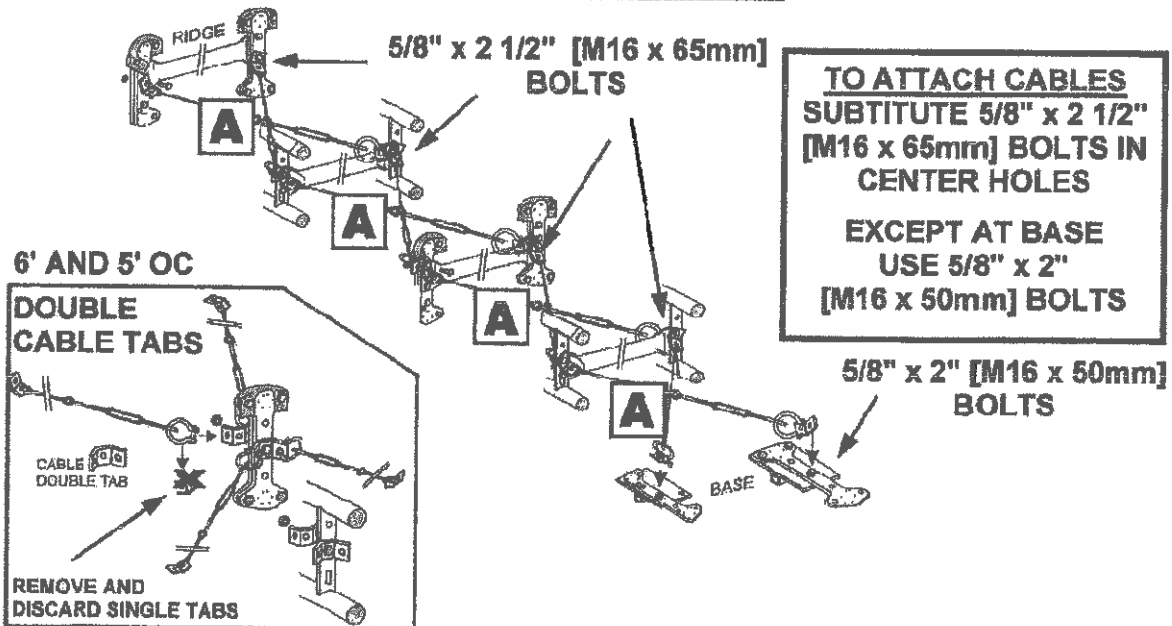
Buildings under 144' [44M] long shown.



16' / 14' / 12' / 10' / 8' OC
ONE END BAY HAS
CROSS CABLES

6' / 5' OC
2 END BAYS HAVE
CROSS CABLES

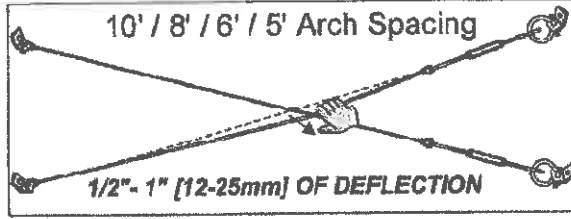
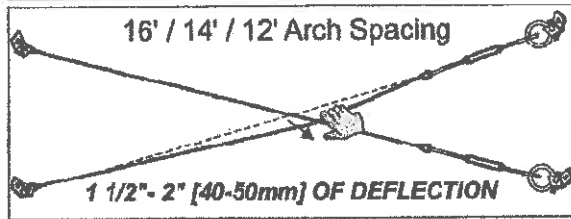
CABLES ALWAYS ATTACH AT THE CENTER HOLE



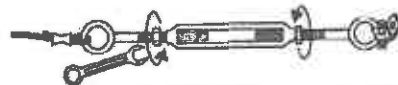
**TO ATTACH CABLES
SUBSTITUTE 5/8\" x 2 1/2\"
[M16 x 65mm] BOLTS IN
CENTER HOLES**

**EXCEPT AT BASE
USE 5/8\" x 2\"
[M16 x 50mm] BOLTS**

Tighten all bolts/nuts to assembly torque value- See Page 32

STEP 19**TENSION CROSS CABLES**

MAKE CROSSED CABLE LENGTHS EQUAL TO SQUARE THE FRAME

**STEP 20****TIGHTEN CABLE TURNBUCKLE LOCKNUTS****STEP 21****ERECT ALL REMAINING ARCHES**

ERECT ALL REMAINING ARCHES. AND INSTALL ALL PURLINS AND ALL CROSS CABLES

STEP 22**BUILDINGS OVER 144' [44M] - SEE APPENDIX A**

If you are erecting a building that is over 144' [44M] long go to APPENDIX A, Item 1, on Page 26 of this manual for cross cable placement and cross cable double tab placement.

STEP 23**TYPE 320 - INSTALL COVER LASHING WINCHES**

1. Install lashing winch mounting brackets on the underside of each arch base EXCEPT 5' [1524mm] o/c and 6' [1830mm] o/c buildings - install every other arch - match placement to notches in cover.

Inside Common Arches -

1 bracket required

5/8" X 2" [M16 x 50mm]

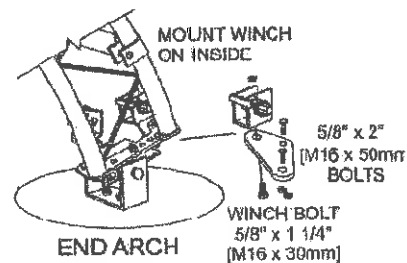
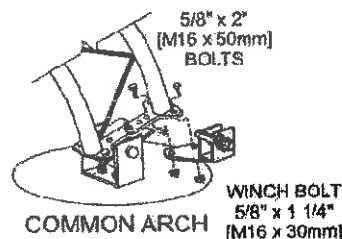
bolts/nuts

End Arch -

1 bracket required

5/8" x 2" [M16 x 50mm]

bolts/nuts



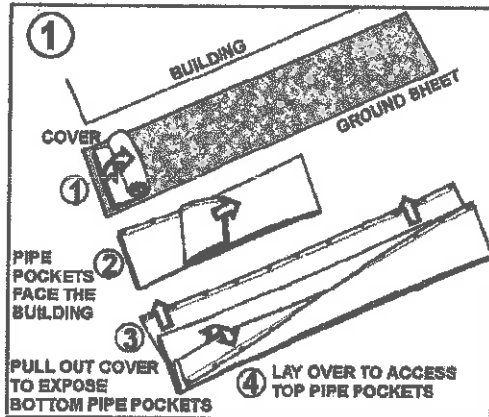
2. Attach lashing winches using 5/8" x 1 1/4" [M16 x 30mm] bolts/nuts.

Tighten all bolts/nuts to assembly torque value- See Page 32

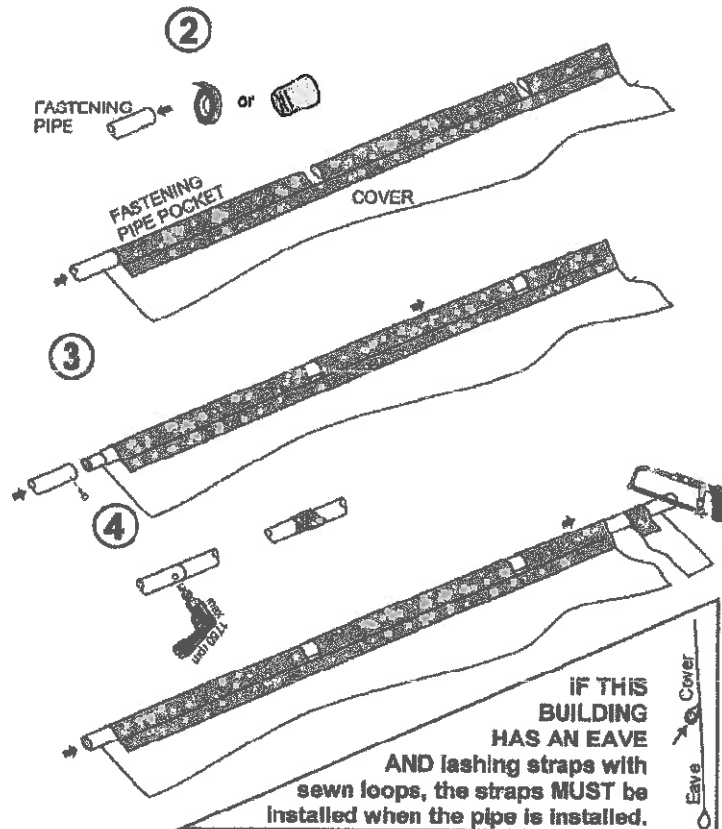
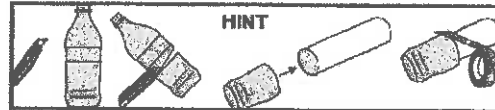
STEP 24

INSTALL COVER FASTENING PIPES

Use a ground sheet to protect the cover while it is being prepared for installation.

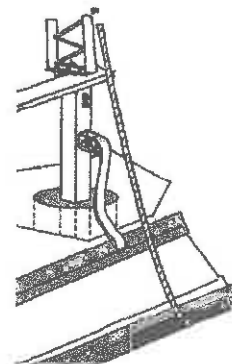
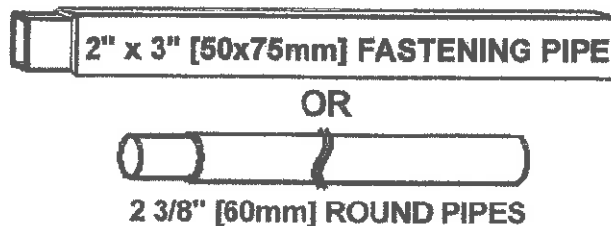


1. Roll out the cover and leave a small walk area along the building. Align the cover evenly to each end of the frame.
2. Pipe raw edge can damage pocket fabric. Wrap or cap leading edge of pipe.
3. Install BOTH fastening pipes.
4. Use 1/4" x 3/4" [M6 x 20mm] Tek self-drilling screws to fasten the pipes together. Wrap with duct tape (tape optional - not supplied).



NOTE: Fastening pipes are supplied in factory cut lengths. Some buildings will require measured cuts, possibly on two lengths of pipe.

BUILDINGS USE 2" X 3" [50 X 75MM] RECTANGULAR FASTENING PIPE OR 2 3/8" [60MM] ROUND FASTENING PIPES

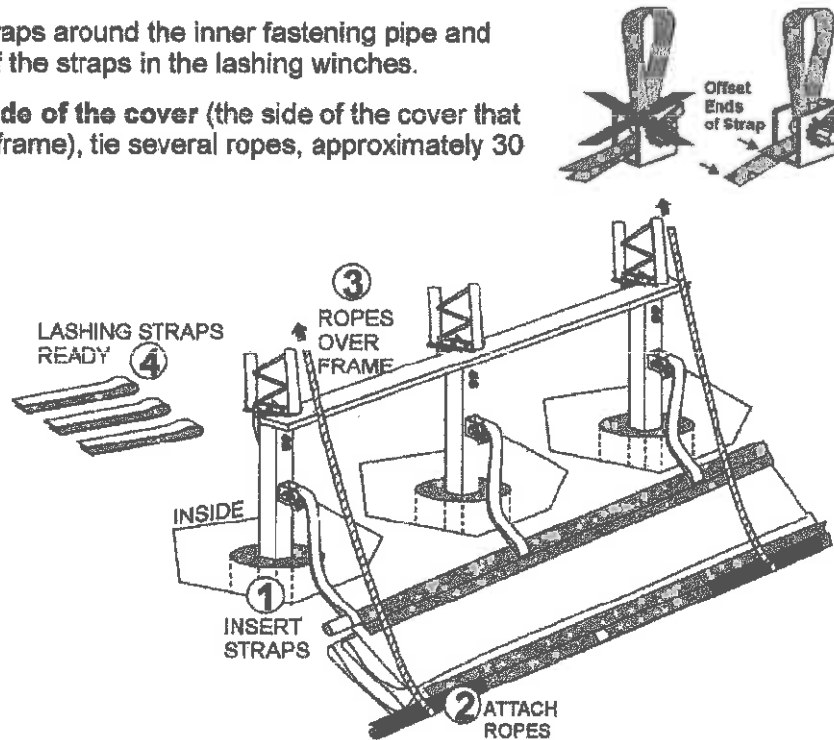


STEP 25

INSTALL THE COVER

NOTE: *DO NOT install the cover onto the frame in high wind conditions. A slight breeze is the most advantageous for cover installation. Take advantage of the breeze by pulling the cover up over the arches with the breeze blowing into the cover . . . like a sail filled with air.*

1. Loop the lashing straps around the inner fastening pipe and secure both ends of the straps in the lashing winches.
2. On the opposite side of the cover (the side of the cover that is furthest from the frame), tie several ropes, approximately 30 feet [9M] apart, to the steel fastening pipe through the notched hole.
3. Throw the free end of the ropes over the frame to the opposite side of the building.
4. Ready the lashing straps on the opposite side of the building.



CHECK LIST:

- **BEFORE** proceeding ensure that the cover is **POCKET SIDE** up.
- **ALL** coupler plates have coupler protectors.
- **BOTH** fastening pipes are in place.
- Fastening straps near side are **SECURED** in the lashing winches.
- Ropes are secured to the **OPPOSITE** pipe and passed over the frame.
- **NO WIND** or there can be a light breeze (ideally from rope pulling side).



USE CAUTION WHEN INSTALLING COVERS WITH MOTORIZED EQUIPMENT. PRE-ARRANGE COMMUNICATION DEVICES OR HAND SIGNALS TO RELAY DIRECTIONS TO EQUIPMENT OPERATORS.

5. Pull the cover over the frame **EVENLY, CAREFULLY** and **SLOWLY**.
6. Loop the lashing straps around the fastening pipe and **loosely secure** in the lashing winches. **DO NOT TIGHTEN**. Adjust the cover so that it is square and evenly centered on the frame. *The end flaps should overhang evenly at both ends.*

NOTE: *DO NOT LEAVE THE COVER UNATTENDED UNDER ANY CIRCUMSTANCES until final assembly and tightening has been completed.*

STEP 26

INSTALL COVER PVC PIPE

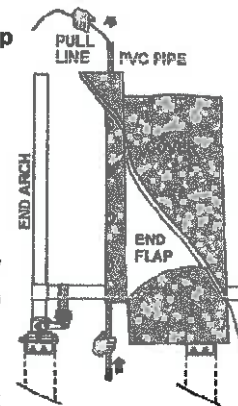
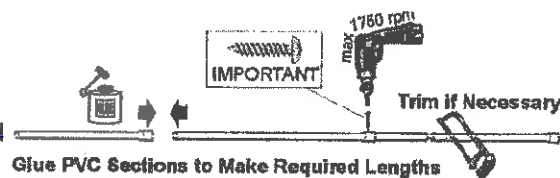
1. Once the cover is on the frame and is sitting centered, square and straight, visually check to ensure the cover extends approximately 12" [305mm] on both ends of the building.
2. Drill a hole in the smooth end of one PVC tube and tie the pull line to it. Wrap this leading end with duct tape.



Hint - A small funnel or cone (not supplied) on the leading edge of the PVC will help spread the PVC pocket.

3. Push - Pull the PVC into the pocket.
Glue and screw the lengths of PVC together as you proceed.

IMPORTANT - ALWAYS install a screw (not supplied) at every connection. PVC glue loses adhesive qualities when applied in cold weather and in damp and humid conditions.



Hint: PVC tubes should slide easily into the pockets. Do not force. Check for twisted fabric or misaligned pocket openings if you experience difficulty.

STEP 27

TENSION COVER ENDS

1. Operate the cover fastening tube end arch lashing winches to remove the slack from the lashing straps. **DO NOT TENSION.**

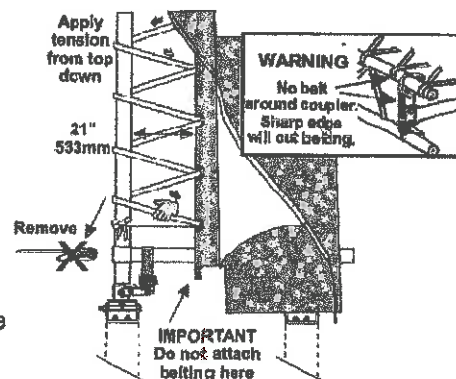
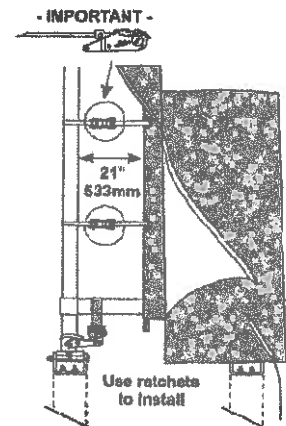
Hint - Use ratchet straps (not supplied) on both ends, evenly spaced, to tension and hold the cover lengthwise. Adjust to obtain a distance of 21" [533mm] between the Arch tube and the PVC pipe at both ends. Then lace the cover to the end arch.

2. **Lace - start at the base.** Lace the 1" [25mm] belting around the PVC tube through the notches and then back to the top truss tube of the end arch - in 10'-12' [3-4M] sections - all the way up to the top center of the building. Tie off each section. Repeat lacing from other base.

Hint - The cover shifts down when final tension is applied. Always try to lace the belting on the down side of the web weld.

3. **Tension - start at the top center.** Work your way down from the secured end use force to tighten the belting and finish by tying the belting off on each section. The PVC tube should be parallel with the end arch all the way around.
4. Lace and tension the opposite end of the building. The cover should be tight and secure from end to end when finished.

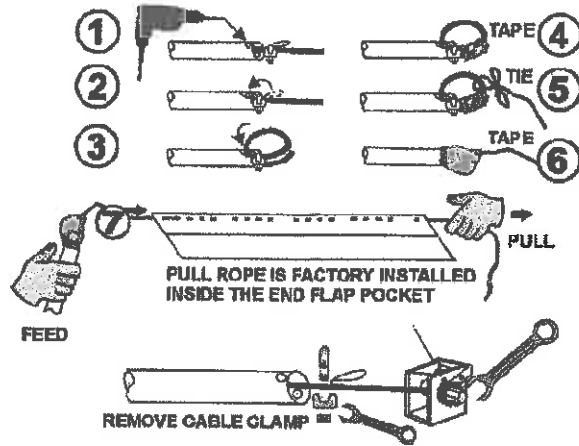
Hint: Trim the belting excess after you have finished the tighten-down.



STEP 28

INSTALL END FLAP CABLE

1. Secure BOTH the cable and PVC tube casing to the end flap pull rope in an acceptable manner. Protect the fabric from any sharp edges.
2. Feed and pull the cable through the end flap until it is equal on both sides.
You may require a third person on a lift to assist the cable through the folds and creases. You can try flipping the end flap flat over the top of the building.
3. The cable clamps can be removed after the cable is secured into the lashing winch.



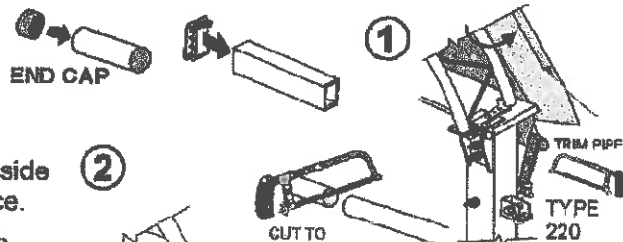
WARNING - Pull slowly or rope burn will damage fabric.

STEP 29

TERMINATE THE COVER FASTENING PIPE

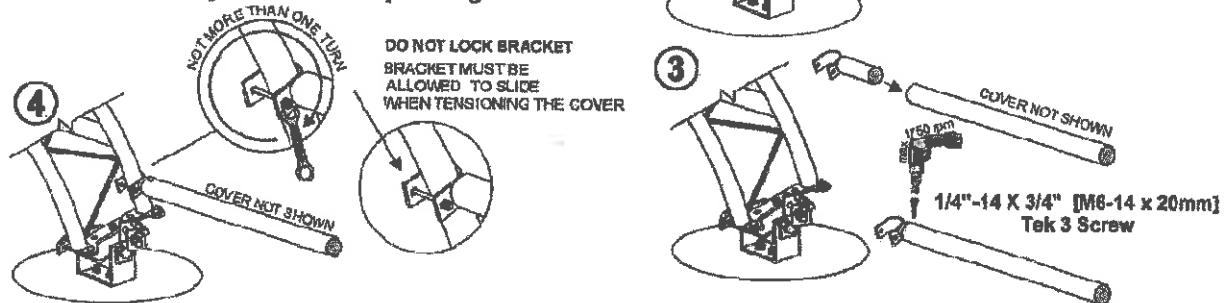
TYPE 220 INSTALLATION

1. Trim the fastening pipe to the end of the building and install plastic end caps.



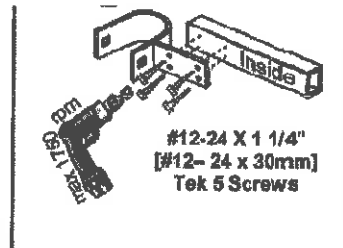
TYPE 320 INSTALLATION

2. Cut the ends of the fastening pipe to fit inside the arch with 1/2" - 1" [12-25mm] clearance.
3. Install the saddle bracket in the end of the tube and secure using a single 1/4"-14 x 3/4" [M6-14 x 20mm] Tek 3 screw.
4. Fit the saddle over the arch tube and install a 1/2" x 4" [M12 x 100mm] carriage bolt/nut.



IMPORTANT: Deform the bracket by tightening the 1/2" [M12] bolt/nut as far as possible. This will reduce any protruding edges. Then release the nut until you achieve a one turn lock. The bracket must be allowed to slide on the truss tube when the cover is tensioned.

Tighten all bolts/nuts to torque value- See Page 32

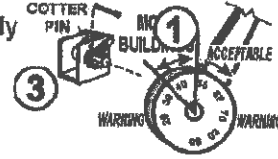


It is now safe to remove all ropes used to steady the frame and install the cover.

STEP 30

TENSION THE COVER

1. Use a 1 1/8" [29mm] wrench to tighten the cover lashing straps evenly on both sides of the building. The tension for the lashing winches on this building has been calculated at **35 - 45 ft. lbs. [48-60N.m]** **DO NOT EXCEED 45 ft. lbs. [60 n.m]** Use a torque wrench. Remove as many wrinkles and creases and bagging as possible.
2. Next, adjust the end lashing straps tension until the cover fastening pipes are level.
3. Install a cotter pin in the lashing winch pilot holes to lock the release lever.



STEP 31

TYPE 220 - SECURE END LASHING STRAPS

1. Secure the outside (end) lashing straps (4) to the fastening pipe by using pipe clips or fender washers and 1/4" x 3/4" [M6 x 20mm] Tek 3 self-drilling screws. Install the screws through the fastening strap into the fastening pipe.

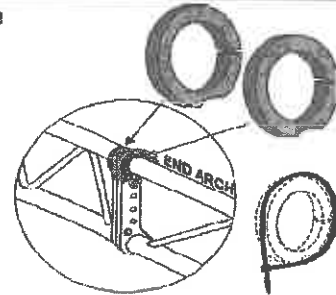


NOTE: Failure to secure the corner fastening straps to the pipe could result in possible damage to the cover. Not required on TYPE 320 installation.

STEP 32

INSTALL RUBBER END FLAP PROTECTORS

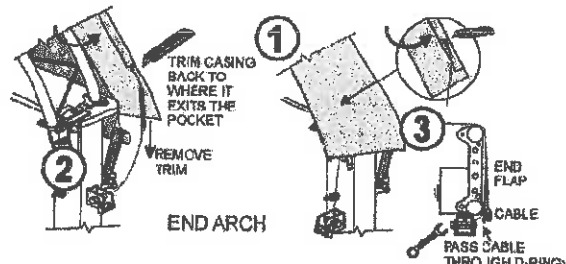
1. All buildings require 2 rubber end flap protectors installed on the upper truss tube at all connected couplers on the end arches.
2. The rubber protectors are designed to pressure fit on the truss tube. If necessary, tape them in position.
3. **WARNING - DO NOT** tension the end flap without installing the rubber protectors. **DAMAGE WILL OCCUR.** If protectors are missing, wrap \varnothing 1/2" [12mm] 12 rope at the coupler and tape to secure.



STEP 33

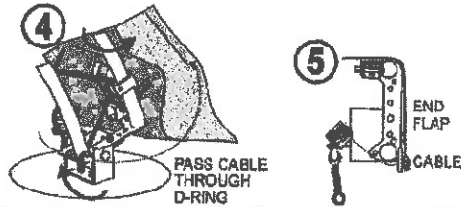
TENSION THE END FLAP CABLES

1. Trim the plastic cable casing.
2. **TYPE 220** - Insert the cable in the end flap winches so that the windings bind the cable end.
3. **TYPE 220 with Fabric End Wall** - Cut an exit hole in the end flap pocket so the cable exits above the D-ring. Pierce the end panel and feed the cable inside the building through the D-ring to the winch. Secure or weld the end flap tail to the end wall.



It may be necessary to repeat the tightening several times at both winches.

4. **TYPE 320** - Thread the end flap cable through the D-ring to the end flap winch.
5. Tighten winches on both sides until the end flap is tight. Repeat this procedure on the other end of the building.



STEP 34

TYPE 320 - SECURE THE APRON

ALWAYS SECURE THE APRON

The fabric is designed to be under tension at all times.

GROUND

Use dimensional lumber to attach the apron to the frame or foundation.
Or back fill the apron at the foundation.

WALL

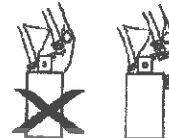
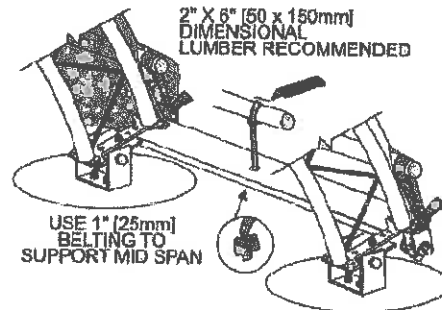
Depending on the width of the wall you may want to consider the following finishing option. Protruding edges on fabric are potential wear points.

WARNING - This is a 320 APRON option only. Do not use for 220 covers.

1. Attach dimensional lumber to the underside of the arch bases so that the apron can be wrapped around the lumber and away from protruding edges.

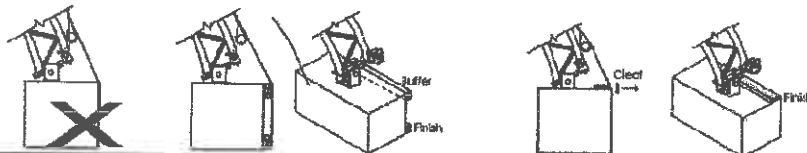
NOTE: Longer bolts may be required to re-attach the lashing winches.

2. Drill a 1" [25mm] hole mid span in the dimensional lumber and pass a short section of 1" [25mm] belting through the hole. Tie a permanent knot below the lumber that will not pass through the hole.
3. Slit the fastening tube pocket directly above the hole and loop the 1" [25mm] belting around the fastening tube. Level the dimensional lumber and tie a releasable knot.
4. This belting will keep the dimensional lumber from sagging. The belting length may need to be adjusted when cover tension is adjusted.



CONCRETE

Never install fabric over concrete edges.
Always install a dimensional lumber buffer or equivalent.



STEP 35

READ MAINTENANCE SCHEDULE Page 2

STEP 36

COMPLETE WARRANTY REGISTRATION Page 36

www.britespanbuildings.com

**APPENDIX A
EXTRUSION CONNECTION**

TYPEB

TYPEC

TYPE D

**APPENDIX B
FLAP OVERLAP CONNECTION**

TYPEA

APPENDIX A

EXTRUSION CONNECTION

Multiple covers are provided for buildings over 144' [44M] in length.

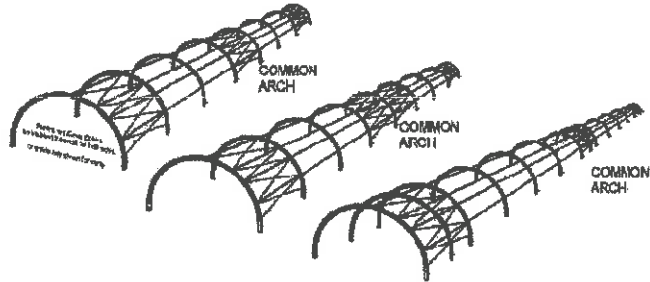
This enables ease of onsite handling and installation.

Normally covers are supplied in equal or near equal lengths. The longest cover length is 144'.
 Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. CROSS CABLE INSTALLATION

- A. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.

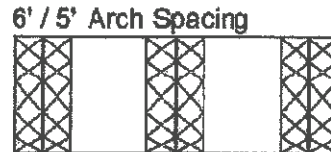
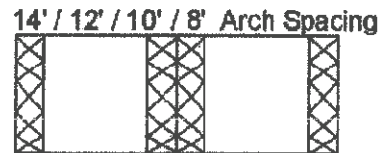
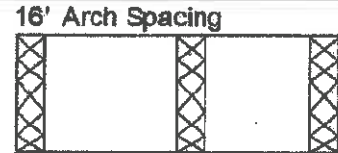
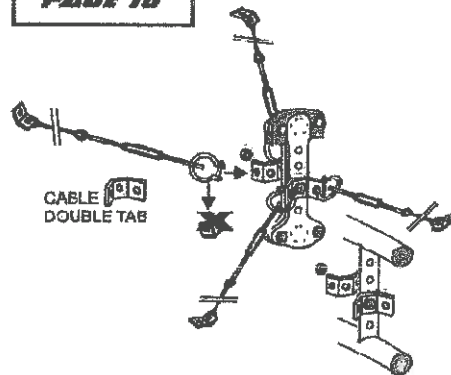
THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.



- B. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.

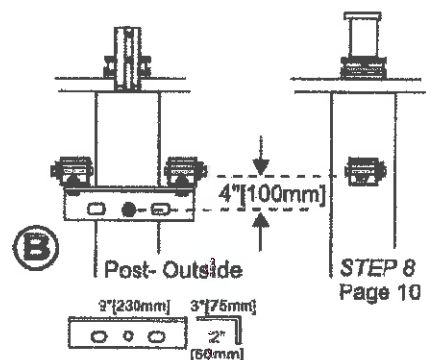
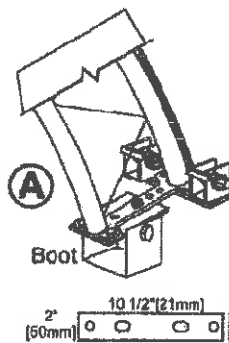
**STEP 22
FROM
PAGE 18**

DOUBLE TAB AND CROSS CABLE PLACEMENT



2. WINCH BRACKET INSTALLATION

- A. Attach the flat winch bracket to the common arch base using 2 of 5/8" x 2" [M16 x 50mm] bolts/nuts.
- B. Attach the angle winch bracket on the outside of the common post using one of 5/8" x 12" [M16 x 305mm] threaded rod and 5/8" [M16] washers/nuts. Attach the winches using 5/8" x 1 1/4" [M16 x 30mm] bolts/nuts.



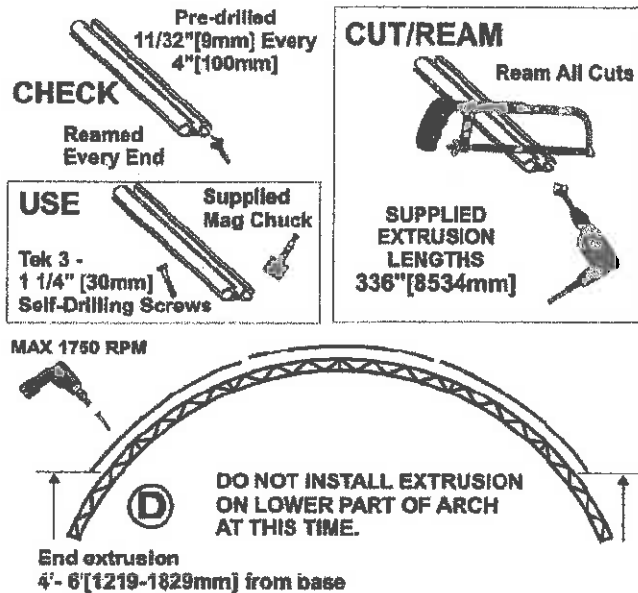
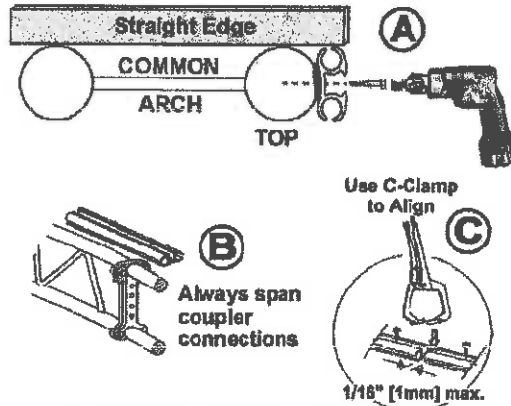
Tighten all bolts/nuts to assembly torque value- See Page 32

3. INSTALL EXTRUSION

Apply Norseal butyl tape to underside of extrusion

Install extrusion on the Common arch as shown using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.

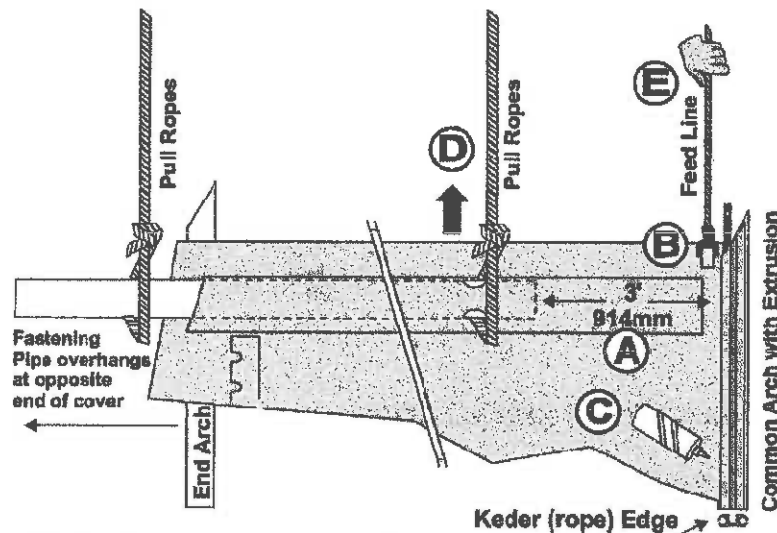
Step #6 can be completed before truss is lifted into place.



4. 2 COVER INSTALLATION

Install the covers as directed in STEPS 24-33 (Pages 19-23), **except** :

- A - When installing the cover, shift the pull-over fastening pipe 3 feet [914mm] away from the extrusion end of the cover (the keder rope edge).
- B - Attach a light feed line to the keder D-ring at the leading edge of the cover.
- C - Charge the extrusion with WinterGel Lubricant.
- D - PULL the cover with the fastening pipe.
- E - FEED the keder edge evenly with the D-ring line while installing.
- F - Fastening pipe end brackets are not required at common arch.

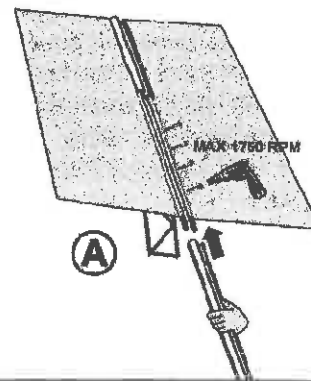


YOU MUST USE RATCHET STRAPS TO GET ADEQUATE LENGTHWISE TENSION ON THE COVER SEE STEP 27, Page 21.

5. LOWER EXTRUSION INSTALLATION

- A. After both covers are installed, install extrusion on the lower edge of the covers and secure to the common arches using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.

THE INSTALLER DETERMINES WHERE THE LOWER EXTRUSION TERMINATES - AVOID POINTS OR ANGLES THAT COULD DAMAGE THE FABRIC WHEN THE FABRIC IS TERMINATED.



6. TRUSS COVER INSTALLATION

A - Install the truss covers

Use a rubber mallet to install snap cap on outside of extrusion



7. 3 OR MORE COVERS - INNER COVERS -

A - Install extrusion on all Common arches.

B - Inner covers have a main cover part and a narrow connector part. Both parts have a keder end and a PVC pocket end and are laced together at the PVC connection.

Install the main cover part and the narrow connector part separately.

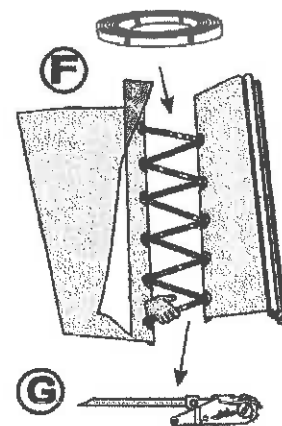
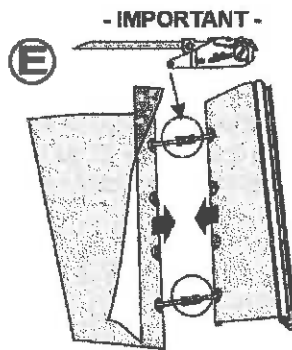
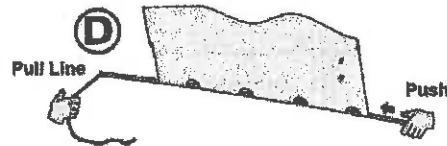
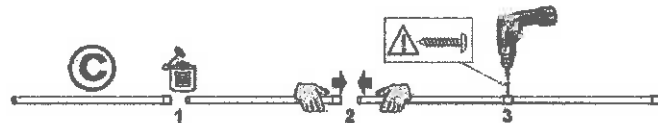
C - Assemble lengths of PVC pipe.

D - Install the PVC pipe in the PVC pockets of both the main cover part and the narrow connector part.

E - Attach ratchet straps to the PVC pipes every 10-12 feet [3-4M] and apply tension.

F - Lace the PVC pipe together in 10-12 feet [3-4M] sections using the 1" [25mm] belting. Always tie off the sections.

G - Remove the ratchet straps.



Finish the interior covers by following the directions Step 5 and Step 6 in this Appendix A.

APPENDIX B

FLAP OVERLAP CONNECTION

Multiple covers are provided for buildings over 144' [44M] in length.

This enables ease of onsite handling and installation.

Normally covers are supplied in equal or near equal lengths. The longest cover length is 144' [44M].

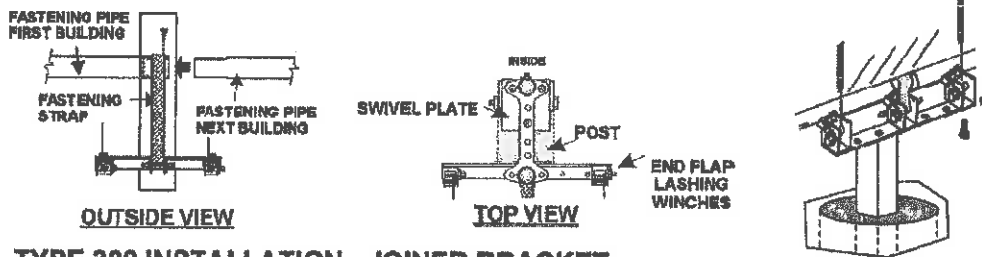
Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. SITE PREPARATION

- a. Arch spacing (running measurement) is the same for the entire length of the building. (the covers share a common arch). *Eg. - 150' [46M] building on 10' [3M] centers has 16 piles/posts on each side.*

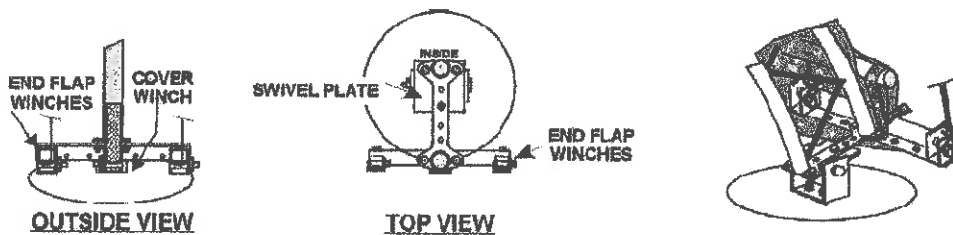
2. TYPE 220 INSTALLATION - JOINER BRACKET

- a. Install a joiner bracket to the common arch post. The bracket installs under the cover lashing winch on the threaded rod. Add an end flap lashing winch to each end of the bracket using 5/8" x 2" [M16 x 50mm] bolts and nuts.



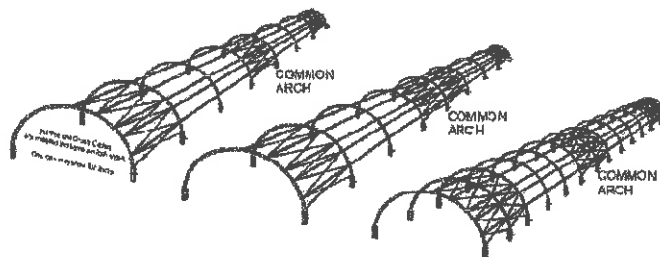
3. TYPE 320 INSTALLATION - JOINER BRACKET

- a. Install a joiner bracket to the underside of the arch base between the cover lashing winch and the base using 2 of 5/8" x 2" [M16 x 50mm] bolts/nuts. Add an end flap lashing winch to each end of the bracket using 5/8" x 2" [M16 x 50mm] bolts and nuts.



4. CROSS CABLE INSTALLATION

- a. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.



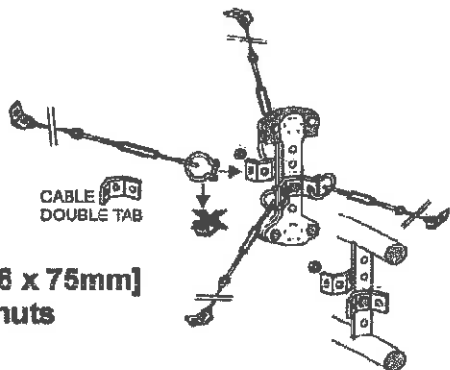
THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.

Tighten all bolts/nuts to assembly torque value- See Page 32

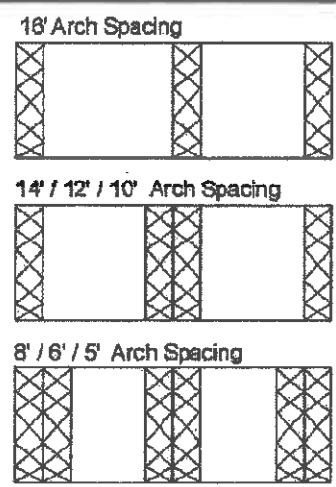
STEP 22
FROM
PAGE 18

DOUBLE TAB AND CROSS CABLE PLACEMENT

- b. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.



5/8" x 3" [M16 x 75mm] bolts/nuts

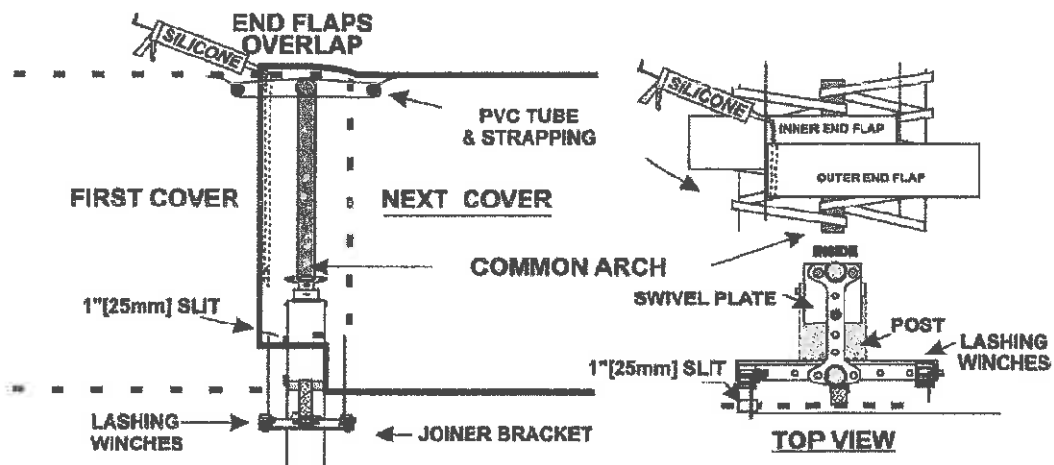


5. COVER INSTALLATION

- a. Install the first cover as directed in STEPS 24-32 (Pages 19-23), **except that** : the end flap on the common arch is *not* secured at this time, flip the end flap back and out of the way; the joiner bracket is installed under the lashing winch; and the end flap lashing winches are secured to the joiner bracket.
- b. Install the next cover in the same manner, *facing the PVC tube to the common arch*. Do not tighten the lashing winches of this cover at this time.

TYPE 220 INSTALLATION

← PREVAILING WINDS



OUTSIDE VIEW

- c. Release the fastening strap in the end arch winch of the first building. Join the fastening pipe of both covers and secure with Tek self-drilling screws. Place the fastening strap over the fastening pipe and re-install the end fastening strap in the winch. Retighten this lashing winch and tighten all of the winches of the next cover.
Adjust the cover lashing winches to remove as many wrinkles and bagging as possible over the entire building. For most buildings 35 - 45 ft. lbs [48-60N.m.] of torque provides adequate cover tension.

Tighten all bolts/nuts to assembly torque value- See Page 32

- d. Place the end flap of the first cover over the next cover's lacing. Attach the end flap cable for this first (inner) end flap to the lashing winches. Tension the lashing winches.

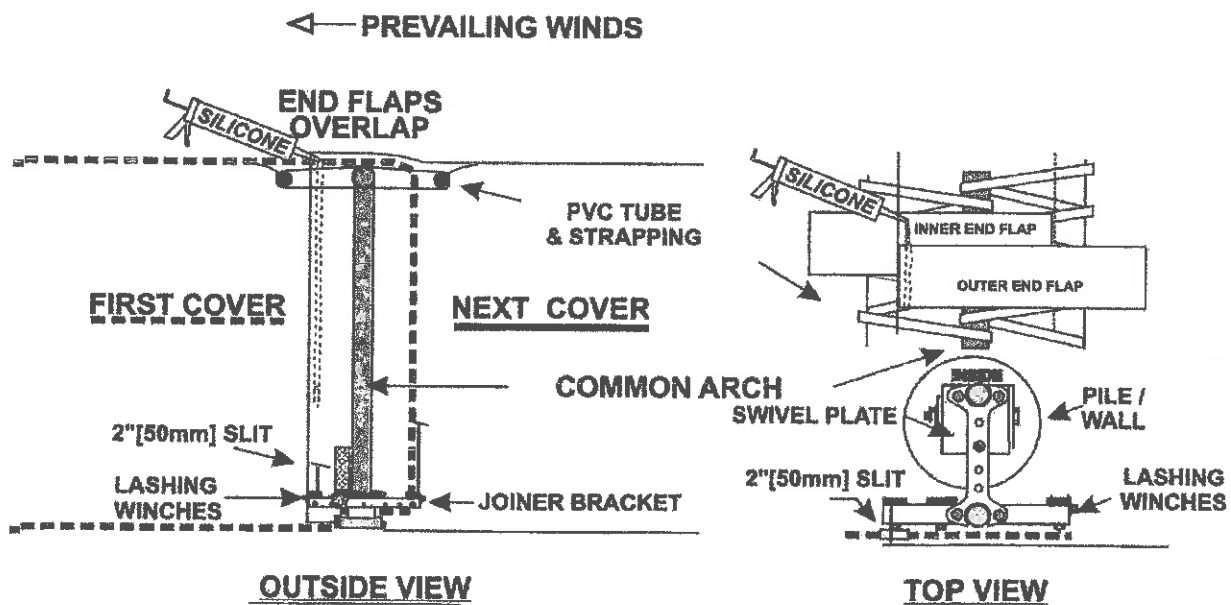
NOTE: If your building is subject to prevailing winds, you should secure the end flaps to protect the overlap.

- e. Place the end flap (outer) of the next cover over the first (inner) end flap. Cut a slit in the first (inner) end flap at the point where the end flap cable for the outer end flap exits its pocket. Feed the fastening cable through the slit and attach to the lashing winches. Tension the lashing winches.

It is best to have the end flap PVC cable casing passing through the fabric or against any part of the fabric rather than the end flap steel cable.

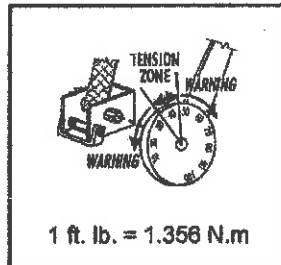
- f. Apply a bead of silicone (supplied) between the outer end flap and the cover. Insert the tube tip between the layers with all straps fastened securely. Walk on the building to seal the top portion of the end flap and use a ladder or lift equipment to reach the sides. Where it is difficult to reach some areas, unsealed portions should not exceed 3 feet [914mm].

TYPE 320 INSTALLATION

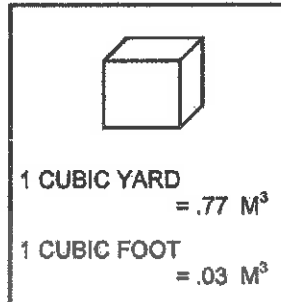


CONVERSIONS

| INCHES | | MILLIMETERS | |
|--------|-------|-------------|------------|
| 1/32" | | | |
| 2/32 | 1/16" | | 1.6 |
| 3/32 | | | |
| 4/32 | 2/16 | 1/8" | 3.2 |
| 5/32 | | | |
| 6/32 | 3/16" | | 4.8 |
| 7/32 | | | |
| 8/32 | 4/16 | 2/8 | 1/4" |
| | 5/16 | | |
| | 6/16 | 3/8" | 9.5 |
| | 7/16 | | |
| | 8/16 | 4/8 | 2/4 |
| | 9/16 | | 1/2" |
| | 10/16 | 5/8" | 15.9 |
| | 11/16 | | |
| | 12/16 | 6/8 | 3/4" |
| | 13/16 | | |
| | 14/16 | 7/8" | 22.2 |
| | 15/16 | | |
| | 16/16 | 8/8 | 4/4 |
| | | 2/2 | 1" |
| | | | 25.4 |



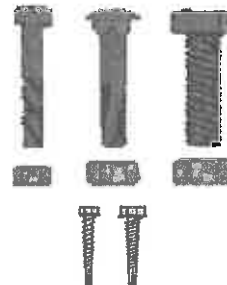
| FEET | METERS |
|------|--------|
| 1' | .305 |
| 2 | .610 |
| 3 | .914 |
| 4 | 1.219 |
| 5 | 1.524 |
| 6 | 1.829 |
| 7 | 2.134 |
| 8 | 2.438 |
| 9 | 2.743 |
| 10 | 3.048 |
| 25 | 7.620 |
| 30 | 9.144 |
| 35 | 10.668 |
| 40 | 12.192 |
| 45 | 13.716 |
| 50 | 15.240 |
| 60 | 18.288 |
| 70 | 21.336 |
| 80 | 24.384 |
| 90 | 27.432 |
| 100' | 30.480 |



ASSEMBLY TORQUE VALUES

SUGGESTED ASSEMBLY TORQUE VALUES FOR STRUCTURAL BOLTS

| Ø SIZE INCH/mm | THREADS per INCH/25mm | GRADE 5 ft - lbs | | GRADE 5 N.m | |
|-------------------|--------------------------|---------------------|------|----------------|------|
| | | DRY | WET* | DRY | WET* |
| 3/8 M10 | 16 | 30 | 23 | 40 | 30 |
| 7/16 M12 | 14 | 50 | 35 | 70 | 50 |
| 1/2 M12 | 13 | 75 | 55 | 100 | 75 |
| 5/8 M16 | 11 | 150 | 110 | 200 | 150 |
| 3/4 M20 | 10 | 260 | 200 | 353 | 270 |
| 1 1/4 M30 | 7 | 1120 | 840 | 1520 | 1140 |
| #12 TEK 3 | 14 | 7.7 | - | 10.5 | - |
| #12 TEK 5 | 24 | 12.5 | - | 17 | - |



* Lubricant

SQUARING A FOUNDATION

IMPORTANT

Depending on the size of your building, you may need a qualified contractor or surveyor to lay out the foundation of your building to ensure that it is straight and square.

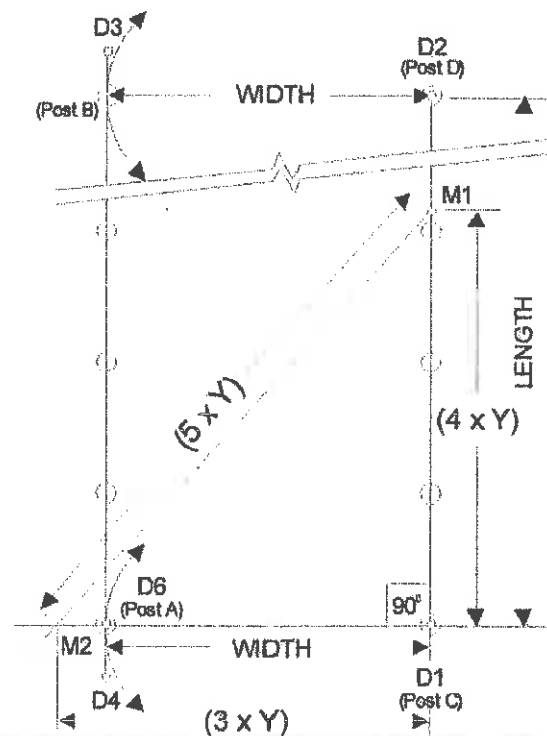
**The following is a suggested method only.
BRITESPAN is not responsible for foundations.**

1. Measure and string a straight line the exact length of the building (D1-D2).
2. Attach a measuring tape to stake D2 and measure the exact width of the building perpendicular to line D1-D2. Make an arc in the dirt at that exact measurement. Repeat this procedure at stake D1 and make a second arc.
3. String an extended line (D3-D4) at the crowns of these two arcs. Recheck width measurements.

USING THE 3-4-5 METHOD TO SQUARE THE FOUNDATION

4. With the measuring tape still attached to stake D1, measure the distance (4 x Y) from stake D1 towards stake D2 and place a stake (M1). See chart this page for a suggested value for Y for your building.
5. With the measuring tape still attached to stake D1, measure the distance (3 x Y) through the crown of the arc, and past line D3-D4, to M2.
6. With a second tape attached to stake M1, measure the distance (5 x Y) to M2.
7. Keeping the tapes tight, cross the two tapes at exactly the (3 x Y) measurement and the (5 x Y) measurement and hold in position. Place a stake (D6) exactly where line D1-M2 crosses line D3-D4. Remove stake M2.
8. Follow the linear and diagonal measurement checks beginning on Page 6 of this manual.

| SERIES/ SIZE | SUGGESTED Y VALUE |
|-----------------|----------------------|
| 18/20 | 7' [2.0M] |
| 22 | 8' [2.5M] |
| 26 | 9' [2.8M] |
| 30/32 | 11' [3.4M] |
| 36 | 12' [3.6M] |
| 40 | 14' [4.3M] |
| 42 | 15' [4.5M] |
| 50 | 17' [5.2M] |
| 55 | 19' [5.8M] |
| 62 | 22' [6.7M] |
| 72 | 25' [7.6M] |
| 82 | 30' [9.2M] |



Maintenance Recommendations For Buildings in Corrosive Environments

BUILDING STEEL

BRITESPAN manufactured steel components are hot dipped galvanized, hot zinc plated or coated with a high quality sealant. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building steel.
- Remove any environmental residue that accumulates on the building steel.
- Seal all surface penetration marks with a high quality sealant or a high zinc content paint.

BUILDING HARDWARE

Hardware components are made of galvanized steel or aluminum alloy; are zinc plated with an added leachant-sealant; or are zinc or cadmium plated. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from coming in direct contact with the building hardware.
- Remove any environmental residue that accumulates on the building hardware.
- Seal or protect from corrosion any non-building components that are connected to, or that come in contact with, the building hardware.

ANCHOR BOLTS *It is recommended that the building owner/operator:*

- Seal the exposed anchor bolt threads with a high quality sealant or a high zinc content paint.

FABRIC LASHING WINCHES *It is recommended that the building owner/operator:*

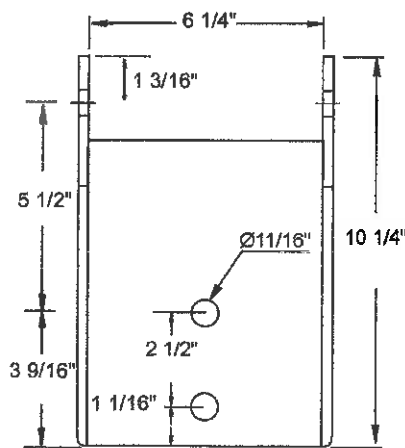
- Spray the lashing winches with a moisture displacing filming lubricant. (WD40 or equivalent)

FABRIC *It is recommended that the building owner/operator:*

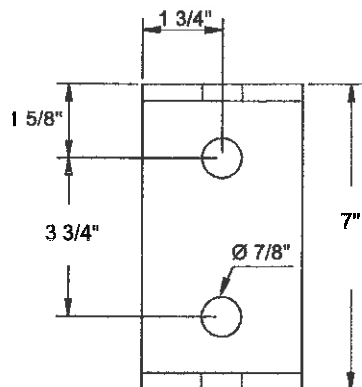
- Prevent corrosive material or product from resting against or covering the building fabric.
- Remove any environmental residue that accumulates on the building fabric. Where moisture will not contribute to corrosion – wash with water and non-abrasive soap.

MOUNTING TEMPLATES

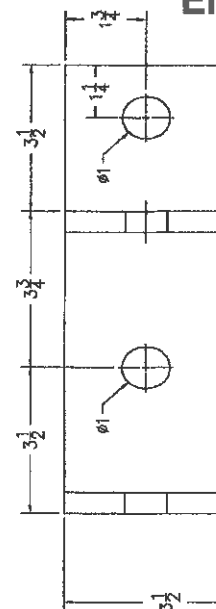
PLATE



COMMON BOOT



END BOOT



BUILDING ENDWALLS

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

FABRIC END WALLS must be supported by a framework that is constructed to meet wind load ratings and building safety standards.

If you are constructing a framework for BRITESPAN supplied fabric end panels the framework MUST BE DESIGNED to match the fastening system of the fabric end panel and must be constructed to meet wind load ratings and building safety standards per engineer's requirements.

Failure to comply with the above can result in damage to the building and will void fabric end panel warranty.

Contact a structural engineer or your local BRITESPAN representative for details.

SUSPENDING OBJECTS AND SERVICES IN BUILDING

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

RULE # 1

Always suspend weighted objects and services from the arches. Use dedicated brackets and hardware and attach to the lower truss cord only - do not use building brackets or hardware and never use the truss webbing as an attachment point. Wherever possible, use clamps to avoid drilling or piercing the lower truss cord. Any suspended objects must be approved by a licensed engineer. If this is not done it may void the building warranty.

RULE #2

Do not suspend weighted objects, services or building operation components from the purlins. The purlins act under compression when wind and snow loads affect the building. Added weight to a purlin can cause it to react unevenly and fail when wind and snow load forces are applied.

If suspensions mid-arch are necessary, use a separate purlin dedicated to the suspension. In some cases a tensioned cable in conjunction with the standard purlin can be used to offset the weight of the suspended object. Four inch (100mm) diameter purlins are capable of supporting weighted objects and services and in some cases can be substituted for standard purlins.

Exceptions for suspensions from purlins can include:

- > Lightweight aluminum and plastic roof vents
- > Simple lighting services without ballasts or transformers
- > Electrical conduit and wiring
- > Control cables

IMPORTANT- always use clamps or ties - **DO NOT** drill or pierce purlins

Contact a structural engineer or your BRITESPAN representative for assistance.

FOR TECHNICAL ASSISTANCE CALL YOUR LOCAL DEALER, SALES REPRESENTATIVE OR 1-800-407-4846



37651 Amberley Road
Lucknow, Ontario Canada N0G 2H0
www.britespanbuildings.com



ONLINE WARRANTY REGISTRATION

Please go to www.britespanbuildings.com and select warranty tab. Complete all registration information boxes (similar to form below). Attach all photos requested and submit. Please ensure photos are clear and are in the view and sequence shown in the attached examples.

| | | | |
|---|--|--|--|
| 1. _____ | | Business / Company Name | |
| Owner Name | | _____ | |
| 2. _____ | | Agent / Representative | |
| Mailing Address | | _____ | |
| 3. _____ | | Phone | |
| City / Town | | _____ | |
| 4. _____ | | Website | |
| Prov/State | | _____ | |
| 5. _____ | | Postal Code | |
| City / Town | | _____ | |
| 6. _____ | | Country | |
| 7. () _____ | | 9. _____ | |
| Home Phone | | Email Address (required for warranty certificate) | |
| 8. () _____ | | Work Phone | |
| 10. The Building Address is the same as above <input type="checkbox"/> If not, provide the building address | | | |
| 11. x _____ | | 13. _____ | |
| Building Size (w x l) | | Size of Door / Openings | |
| 12. _____ | | 15. _____ | |
| # of Enclosed Ends | | Date Warranty Registration Submitted | |
| 14. _____ | | 18. _____ | |
| SO# | | Dealer Invoice Number | |
| 16. _____ | | 17. _____ | |
| Date of Purchase | | Name of Dealer Purchased from | |
| 19. Building Application: _____ | | Primary Use: _____ | |
| | | Industry | |
| | | Self-Installed Dealer Installed Other | |
| 20. The Building foundation was | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 21. The Building steel was | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 22. The Building cover was | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 23. The end frame(s) were | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 24. The end(s) fabric were | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| | | Name of Contractor is required | |
| | | _____ | |
| | | _____ | |
| | | _____ | |
| | | _____ | |
| | | Yes No | |
| 25. Did you receive the Steel and Fabric and Warranty? | | <input type="checkbox"/> <input type="checkbox"/> | |
| 26. Did you receive Building Maintenance information located in owner/installation manual? | | <input type="checkbox"/> <input type="checkbox"/> | |
| 27. Did you ask the installer or Dealer for instructions on how to perform Building Maintenance procedures? | | <input type="checkbox"/> <input type="checkbox"/> | |
| Comments _____ | | | |
| _____ | | | |

Allow 90 days from date of registration submitted for Processing and Warranty Evaluation of photos. If you are not emailed a Warranty Certificate within this time frame please contact you BRITESPAN Representative. Use the building SO# as your trace number. Note: Warranty only valid with warranty registration and required photos. See attached for



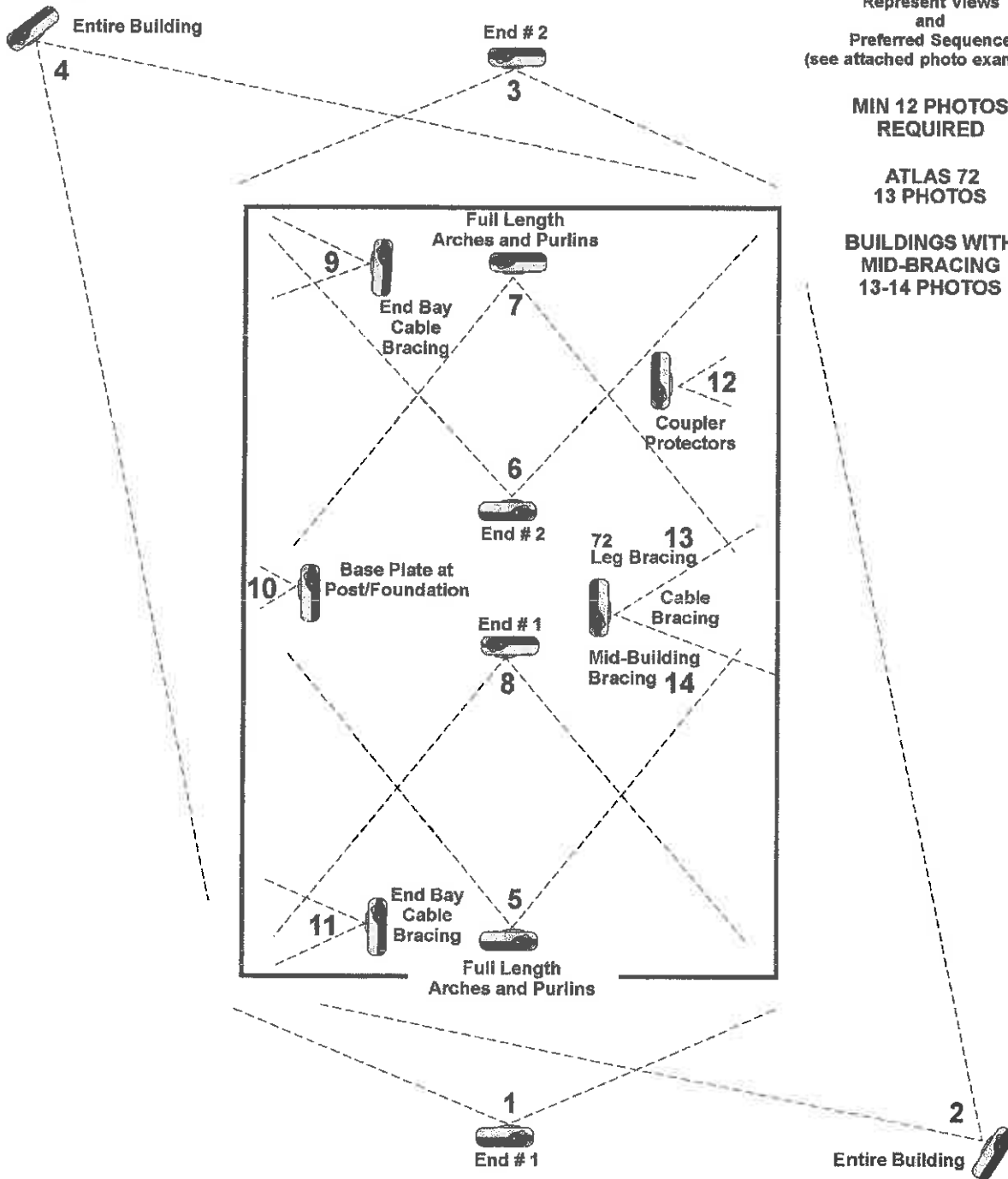
BRITESPAN Warranty Photo Registration

NUMBERS
Represent Views
and
Preferred Sequence
(see attached photo examples)

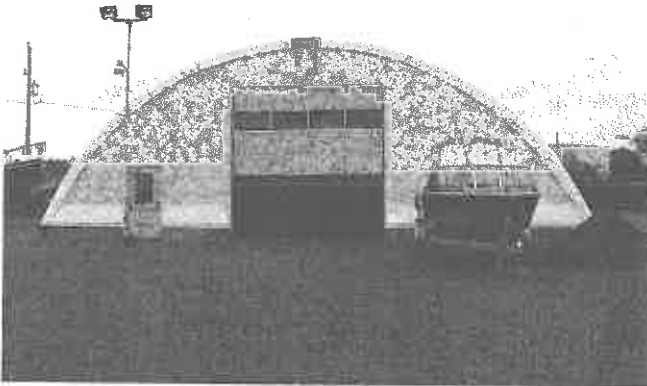
**MIN 12 PHOTOS
REQUIRED**

**ATLAS 72
13 PHOTOS**

**BUILDINGS WITH
MID-BRACING
13-14 PHOTOS**

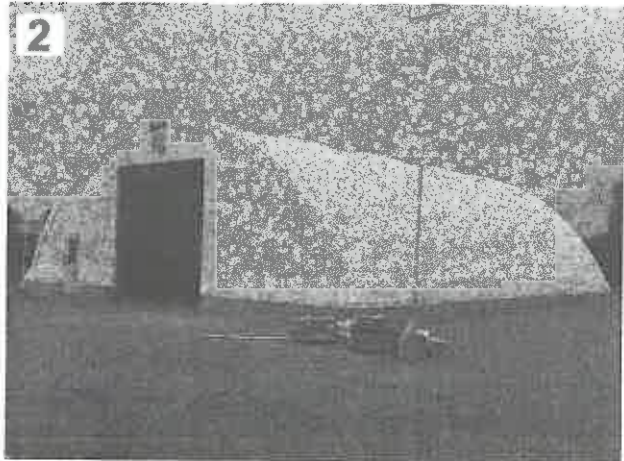


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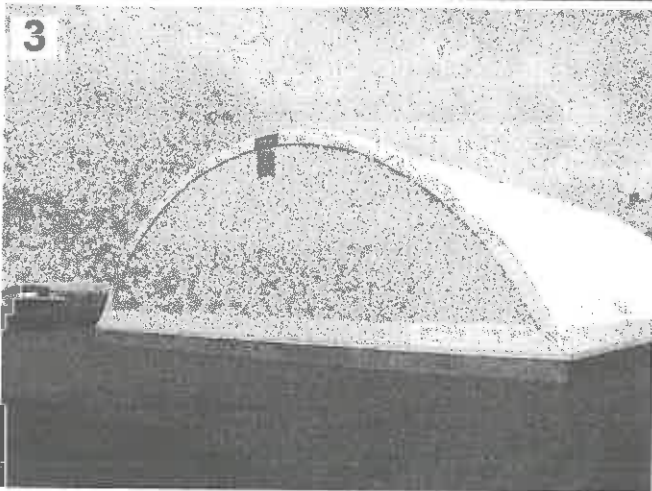


REQUIRED VIEWS

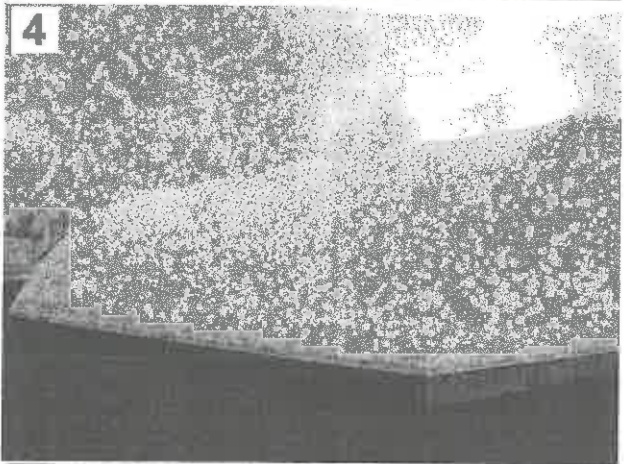
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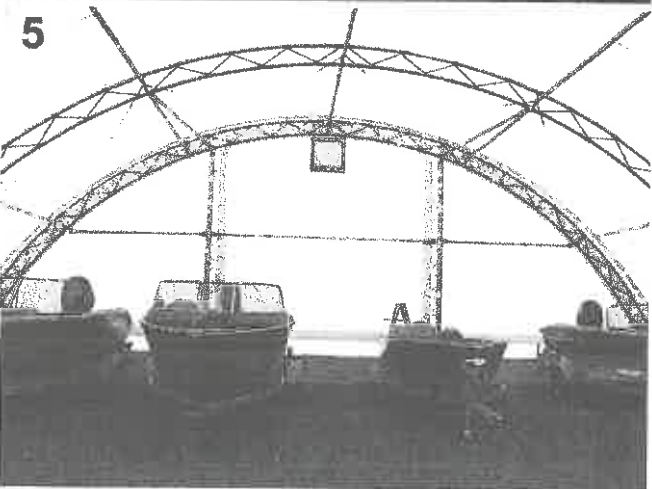
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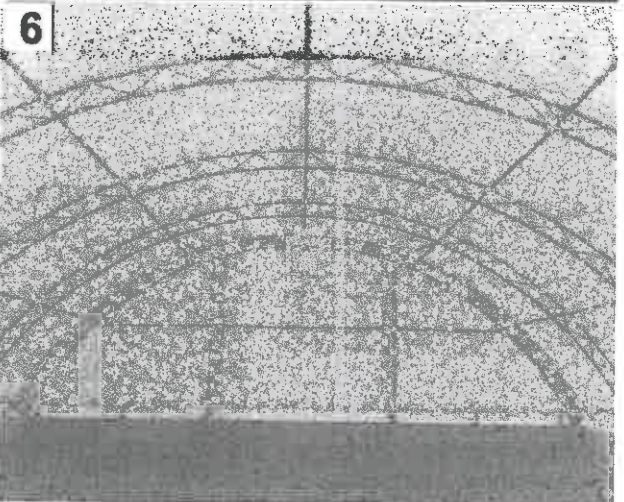
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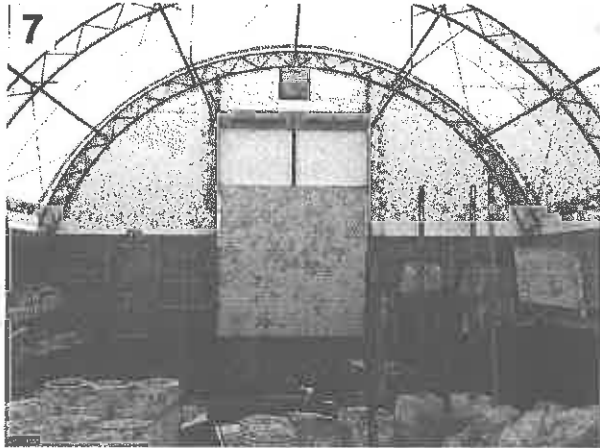


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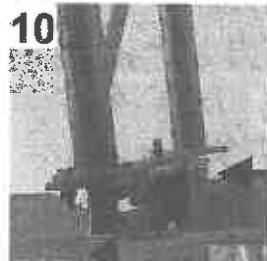
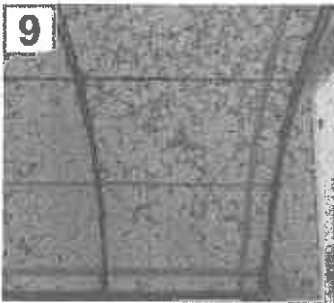
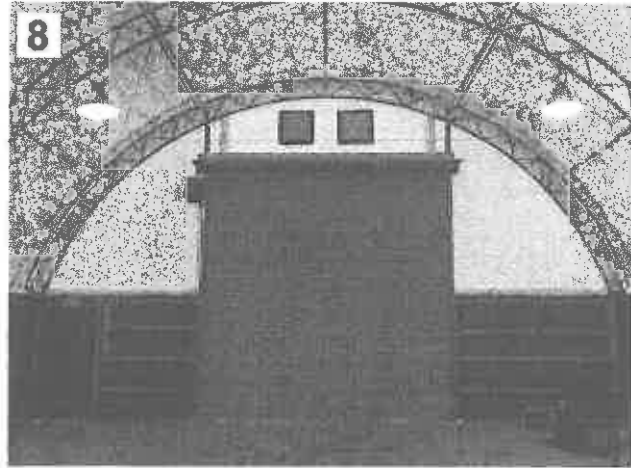


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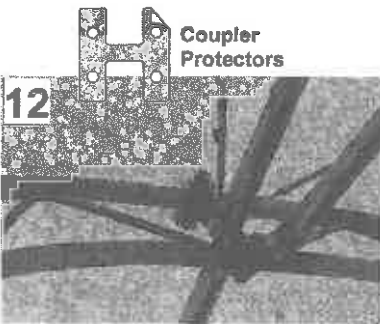
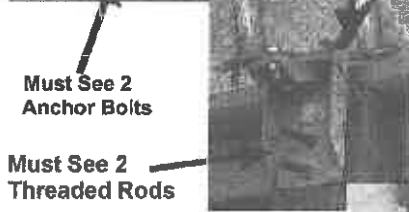




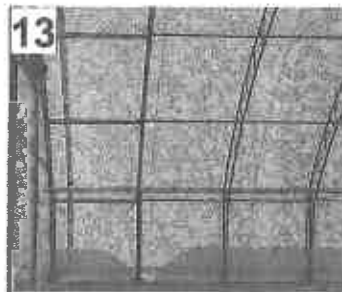
REQUIRED VIEWS



Must See Swivel Bolt Washer



Coupler Protectors



65 and 72 Building Leg Bracing



Mid-Building Bracing



LIMITED WARRANTY

SCOPE OF LIMITED WARRANTY

Only the building components manufactured by BRITESPAN Building Systems Inc. and described in this agreement are warranted for manufacturer defects to the building owner.

This warranty is only valid if and when:

- i) Warranty has properly been registered by an authorized BRITESPAN Building Systems Inc. dealer as per the instruction in the building kit and,
- ii) BRITESPAN Building Systems Inc. receives written notice and proof of claim (photos where possible) of any manufacturers defects during the period of warranty coverage.

Resolve of the structural defect(s) may be through the supply of new, used or rebuilt parts, or on-site repair, at the option of BRITESPAN Building Systems Inc. If BRITESPAN Building Systems Inc. chooses to repair or replace the defective product or component, BRITESPAN Building Systems Inc. shall be allotted reasonable time to do so.

This warranty includes the explicit warranty of BRITESPAN Building Systems Inc. There are no other warranties expressed or implied. This warranty is made and is not to be replaced by any warranties of marketability or suitability for a particular purpose. Warranty specifications are applicable to units sold and erected in Canada and the United States only. Warranty may vary outside of those areas. Please contact your local authorized BRITESPAN Building Systems Inc. representative for more details.

WARRANTY REGISTRATION

Follow all of the instructions for the online warranty registration found in this manual and at www.britespanbuildings.com. All warranty registrations must be submitted for registration review within 60 days of building installation. A certificate of warranty will be issued to your local authorized BRITESPAN Building Systems Inc. representative once all of the requirements have been met for registration and approved by BRITESPAN Building Systems Inc.

A warranty certificate may be withheld if the building or any components are not assembled in accordance with the installation procedures indicated in the installation manual. A warranty certificate will be issued upon correction of identified deficiencies supported with new photographs to complete the verification.

If the building changes ownership, the new owner must apply for a warranty transfer to assume remaining years of warranty on the existing structure(s). Contact your local authorized BRITESPAN Building Systems Inc. dealer to obtain a transfer of warranty package. A one-time per transfer fee may apply.

STANDARD LIMITED WARRANTY COVERAGE PERIODS:

| TABLE 3-1: STANDARD PRO-RATED WARRANTY COVERAGE PERIOD (YEARS) | |
|--|-------------------|
| COMPONENT | ATLAS18 / ATLAS24 |
| MAIN STRUCTURE COVER (NON-FR) ⁽⁴⁾ | 16 |
| MAIN STRUCTURE COVER (FR) ⁽⁴⁾ | 10 |
| END FABRIC (NON-FR) ⁽⁵⁾ | 3 |
| END FABRIC (FR) ⁽⁵⁾ | 3 |
| MAIN STEEL FRAMEWORK ⁽²⁾ | 5 |
| END STEEL FRAMEWORK (HSS) ⁽³⁾ | 5 |

* Building needs to be installed by factory trained, approved and qualified personnel.



LIMITED WARRANTY

NOTES ON LIMITED WARRANTY COVERAGE PERIODS

- All repair or replacement costs are pro-rated as per table 3-1 on page one of this document. (1)
- Consists of main building trusses, purlins and manufactured brackets (2)
- Consists of vertical columns, horizontal members, and manufactured brackets. Does not include cables or fasteners. (3)
- Consists of main building cover panels only. Does not include any fastening system components (4)
- Consists of end enclosure panels only (standard FR & non-FR fabrics only). Does not include any fastening system components. End enclosure panels must be properly supported by a BRITESPAN Building Systems Inc. end support system or an alternative system designed and engineered to match the end panel fastening system. The alternative system must also meet site wind load and building safety requirements as per engineer requirements. (5)

STANDARD TERMS OF LIMITED WARRANTY COVERAGE

Should any components be found to have manufacturer's defects under normal use, the defect(s) will be repaired or the components replaced, at the discretion of BRITESPAN Building Systems Inc. The building owner will be responsible for the cost of the repair or replacement parts pro-rated per year following the original purchase date, plus the cost of delivery and installation of replacement parts, if required. All replacement parts are F.O.B. Lucknow, Ontario, Canada. Any parts requiring replacement under this warranty are subsequently warranted only for the remaining time period of the unexpired portion of the warranty that is applicable to the original product.

Due to continual product development, over time certain fabric colours or steel components may become unavailable. In those incidents, BRITESPAN Building Systems Inc. reserves the right to substitute replacement components with those that are comparable in function, quality, and price to the original. BRITESPAN Building Systems Inc. is not responsible nor liable if the replacement component varies in appearance from the original.

LIMITS AND RELEASE OF LIABILITY

This warranty does not apply to defects or damages resulting from a) improper installation and /or installation that is not in accordance with BRITESPAN Building Systems Inc. installation manuals and procedures; b) improper or inadequate maintenance of the structure; c) any modification or alteration of the product; d) misuse, neglect, or abuse of the product; e) accident; f) repair or alteration by an unauthorized BRITESPAN Building Systems Inc. dealer; g) integration of products or accessories not manufactured specifically for use in a BRITESPAN Building Systems Inc.; h) exposure to corrosive elements; i) corrosion resulting from structure applications, environment within the structure, and/or insufficient maintenance or any cause other than a defect in an item's described corrosion protection; j) use of abrasive cleaning methods, chemicals, or solvents; k) exposure to conditions in excess of, or not meeting, as the case may be, wind and snow load specifications for building model; l) design of foundation and/or installation and/or deficiency in the foundation; m) product upgrades; n) product recall; o) normal wear and tear; p) wear caused by multiple installations; q) storage and/or handling of building components; r) an act of God; s) This warranty does not apply to cosmetic defects or deterioration, including discolouration.

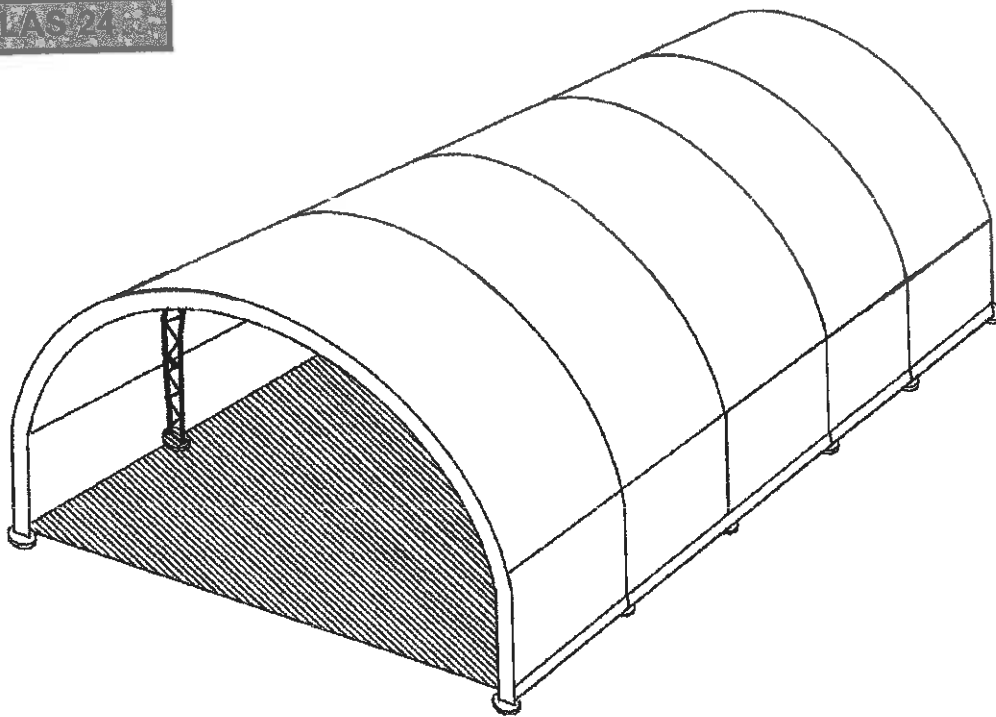
BRITESPAN Building Systems Inc. will not be liable for any damages incurred during or as a result of installation of a BRITESPAN Building Systems Inc. product, whether or not in accordance with the installation instructions. In no event will BRITESPAN Building Systems Inc., any distributor, or the selling dealer be liable for any direct, indirect, special, incidental, or consequential damages (including loss of profit, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if BRITESPAN Building Systems Inc., its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. By registering for and taking benefit of the warranty, the building owner expressly releases and discharges BRITESPAN Building Systems Inc., all distributors, and all dealers from all claims, causes of action, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the building owner ever had, now has, or may have by reason of the assembly, erection, use and/or operation of any BRITESPAN Building Systems Inc. All references to building owners, BRITESPAN Building Systems Inc., all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

BRITESPAN Building Systems Inc. and its authorized dealers are independent businesses; authorized dealers are not agents or legal representatives of BRITESPAN Building Systems Inc. Authorized dealers have no right or authority to assume or create any legal obligation or responsibility, express or implied, on behalf of BRITESPAN Building Systems Inc., or to bind BRITESPAN Building Systems Inc. in any manner whatsoever. BRITESPAN Building Systems Inc. shall have no liability for any acts, errors, omissions, workmanship, supplies, advice, representations or misrepresentations of any authorized dealer.



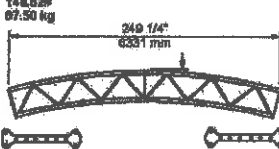
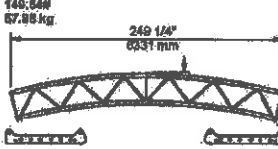
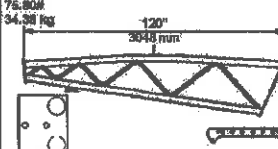
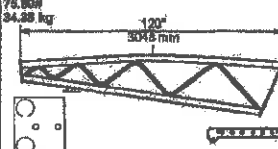
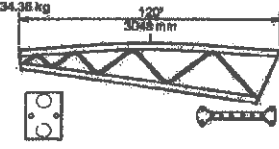
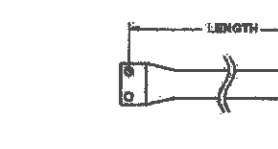
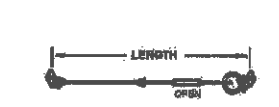
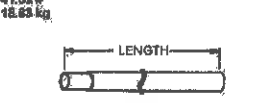
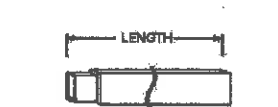


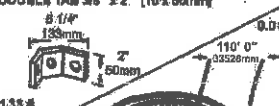

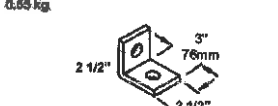












Owner / Installation Manual

Includes Warranty and Registration



**SEPARATE MANUALS
Are Supplied for
END ENCLOSURES**

Building Components

|  <p>148.82# 67.50 kg</p> <p>240 1/4" 6351 mm</p> <p>TRUSS - ATLAS 24 65/70/72/82 COMMON CENTRE 30004050</p> |  <p>148.84# 67.85 kg</p> <p>240 1/4" 6351 mm</p> <p>TRUSS - ATLAS 24 65/70/72/82 COMMON END 30004055</p> |  <p>75.80# 34.36 kg</p> <p>120" 3048 mm</p> <p>TRUSS - ATLAS 24 65/72 LEFT LEG 30804072</p> |  <p>75.80# 34.36 kg</p> <p>120" 3048 mm</p> <p>TRUSS - ATLAS 24 65/72 RIGHT LEG 30004067</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---------------|----------------|------------------|---------------|-----------------|--------------------|---------------|-----------------|--------------------|---------------|-----------------|--------------------|---------------|-----------------|--------------------|--|-----------------|--------------------|--------------|----------------|-------------------|---------------|----------------|-------------------|---------------|----------------|-------------------|--------------|----------------|------------------|--------------|----------------|------------------|--------------|----------------|------------------|--------------|----------------|------------------|--------------|----------------|------------------|--------------|----------------|------------------|
|  <p>75.78# 34.35 kg</p> <p>120" 3048 mm</p> <p>TRUSS - ATLAS 24 65/72 COMMON LEG 30004060</p> |  <p>FORLIN - 14 GA</p> | <table border="1"> <thead> <tr> <th>DIA.</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>PA2.875 - 168</td> <td>18' 0" / 406 mm</td> <td>48.14 # / 22.29 kg</td> </tr> <tr> <td>PA2.875 - 168</td> <td>18' 0" / 406 mm</td> <td>40.00 # / 18.14 kg</td> </tr> <tr> <td>PA2.875 - 148</td> <td>14' 0" / 356 mm</td> <td>35.25 # / 15.99 kg</td> </tr> <tr> <td>PA2.875 - 128</td> <td>12' 0" / 305 mm</td> <td>30.18 # / 13.69 kg</td> </tr> <tr> <td>PA2.875 - 108</td> <td>10' 0" / 254 mm</td> <td>23.34 # / 11.49 kg</td> </tr> <tr> <td>PA2.875 - 88</td> <td>8' 0" / 203 mm</td> <td>20.28 # / 9.20 kg</td> </tr> <tr> <td>PA2.875 - 68</td> <td>6' 0" / 152 mm</td> <td>15.43 # / 7.00 kg</td> </tr> <tr> <td>PA2.875 - 58</td> <td>5' 0" / 127 mm</td> <td>12.93 # / 5.87 kg</td> </tr> </tbody> </table> <p>NOTE: Length = Arch Spacing</p> | | DIA. | LENGTH | WEIGHT | PA2.875 - 168 | 18' 0" / 406 mm | 48.14 # / 22.29 kg | PA2.875 - 168 | 18' 0" / 406 mm | 40.00 # / 18.14 kg | PA2.875 - 148 | 14' 0" / 356 mm | 35.25 # / 15.99 kg | PA2.875 - 128 | 12' 0" / 305 mm | 30.18 # / 13.69 kg | PA2.875 - 108 | 10' 0" / 254 mm | 23.34 # / 11.49 kg | PA2.875 - 88 | 8' 0" / 203 mm | 20.28 # / 9.20 kg | PA2.875 - 68 | 6' 0" / 152 mm | 15.43 # / 7.00 kg | PA2.875 - 58 | 5' 0" / 127 mm | 12.93 # / 5.87 kg | | | | | | | | | | | | | | | | | | |
| DIA. | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 168 | 18' 0" / 406 mm | 48.14 # / 22.29 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 168 | 18' 0" / 406 mm | 40.00 # / 18.14 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 148 | 14' 0" / 356 mm | 35.25 # / 15.99 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 128 | 12' 0" / 305 mm | 30.18 # / 13.69 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 108 | 10' 0" / 254 mm | 23.34 # / 11.49 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 88 | 8' 0" / 203 mm | 20.28 # / 9.20 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 68 | 6' 0" / 152 mm | 15.43 # / 7.00 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PA2.875 - 58 | 5' 0" / 127 mm | 12.93 # / 5.87 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>ARCH SPACING LENGTH WEIGHT</p> <table border="1"> <tbody> <tr> <td>10 - 861231-8</td> <td>231" / 5867 mm</td> <td>6.89 # / 3.03 kg</td> </tr> <tr> <td>10 - 861223-8</td> <td>223" / 5715 mm</td> <td>6.80 # / 2.96 kg</td> </tr> <tr> <td>14 - 861203-8</td> <td>211" / 5360 mm</td> <td>6.40 # / 2.90 kg</td> </tr> <tr> <td>14 - 861183-8</td> <td>203" / 5207 mm</td> <td>6.31 # / 2.86 kg</td> </tr> <tr> <td>12 - 861192-8</td> <td>192" / 4877 mm</td> <td>6.13 # / 2.78 kg</td> </tr> <tr> <td>12 - 861188-8</td> <td>188" / 4724 mm</td> <td>6.04 # / 2.74 kg</td> </tr> </tbody> </table> | 10 - 861231-8 | 231" / 5867 mm | 6.89 # / 3.03 kg | 10 - 861223-8 | 223" / 5715 mm | 6.80 # / 2.96 kg | 14 - 861203-8 | 211" / 5360 mm | 6.40 # / 2.90 kg | 14 - 861183-8 | 203" / 5207 mm | 6.31 # / 2.86 kg | 12 - 861192-8 | 192" / 4877 mm | 6.13 # / 2.78 kg | 12 - 861188-8 | 188" / 4724 mm | 6.04 # / 2.74 kg | <table border="1"> <thead> <tr> <th>ARCH SPACING</th> <th>LENGTH</th> <th>WEIGHT</th> </tr> </thead> <tbody> <tr> <td>10 - 861174-8</td> <td>174" / 4420 mm</td> <td>5.90 # / 2.69 kg</td> </tr> <tr> <td>10 - 861167-8</td> <td>167" / 4242 mm</td> <td>5.78 # / 2.61 kg</td> </tr> <tr> <td>8 - 861157-8</td> <td>157" / 3983 mm</td> <td>5.62 # / 2.55 kg</td> </tr> <tr> <td>8 - 861151-8</td> <td>151" / 3835 mm</td> <td>5.53 # / 2.51 kg</td> </tr> <tr> <td>6 - 861192-8</td> <td>192" / 4877 mm</td> <td>6.13 # / 2.78 kg</td> </tr> <tr> <td>6 - 861188-8</td> <td>188" / 4724 mm</td> <td>6.04 # / 2.74 kg</td> </tr> <tr> <td>5 - 861174-8</td> <td>174" / 4420 mm</td> <td>5.90 # / 2.68 kg</td> </tr> <tr> <td>5 - 861167-8</td> <td>167" / 4242 mm</td> <td>5.78 # / 2.61 kg</td> </tr> </tbody> </table> | | | ARCH SPACING | LENGTH | WEIGHT | 10 - 861174-8 | 174" / 4420 mm | 5.90 # / 2.69 kg | 10 - 861167-8 | 167" / 4242 mm | 5.78 # / 2.61 kg | 8 - 861157-8 | 157" / 3983 mm | 5.62 # / 2.55 kg | 8 - 861151-8 | 151" / 3835 mm | 5.53 # / 2.51 kg | 6 - 861192-8 | 192" / 4877 mm | 6.13 # / 2.78 kg | 6 - 861188-8 | 188" / 4724 mm | 6.04 # / 2.74 kg | 5 - 861174-8 | 174" / 4420 mm | 5.90 # / 2.68 kg | 5 - 861167-8 | 167" / 4242 mm | 5.78 # / 2.61 kg |
| 10 - 861231-8 | 231" / 5867 mm | 6.89 # / 3.03 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 - 861223-8 | 223" / 5715 mm | 6.80 # / 2.96 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 - 861203-8 | 211" / 5360 mm | 6.40 # / 2.90 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 - 861183-8 | 203" / 5207 mm | 6.31 # / 2.86 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 - 861192-8 | 192" / 4877 mm | 6.13 # / 2.78 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 - 861188-8 | 188" / 4724 mm | 6.04 # / 2.74 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ARCH SPACING | LENGTH | WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 - 861174-8 | 174" / 4420 mm | 5.90 # / 2.69 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 - 861167-8 | 167" / 4242 mm | 5.78 # / 2.61 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 - 861157-8 | 157" / 3983 mm | 5.62 # / 2.55 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 - 861151-8 | 151" / 3835 mm | 5.53 # / 2.51 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 - 861192-8 | 192" / 4877 mm | 6.13 # / 2.78 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 - 861188-8 | 188" / 4724 mm | 6.04 # / 2.74 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 - 861174-8 | 174" / 4420 mm | 5.90 # / 2.68 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 - 861167-8 | 167" / 4242 mm | 5.78 # / 2.61 kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>FASTENING TUBE # 2.875 [80mm] 14 GA FT2.375-2458</p> |  <p>TUBE - 2" x 1/2" HSS FASTENING (SMAWED) 14 GA 80 x 76mm</p> |  <p>BRACKET - FTHSS SADDLE 30010278 2 7/8" [73mm] FOR 2" x 3" FT [80 x 76mm]</p> |  <p>FT End Saddle Brkt 30011278 2 3/8" Round - 2 7/8" Cord</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>BRACKET - CROSS CABLE DOUBLE TAB 3/8" x 2" [10 x 50mm] 30012350</p> |  <p>CUTTER PIN # 2410 x 1" # 5 inch x 26 mm 804030</p> |  <p>BRACKET - WINCH MOUNT 2 1/2" x 3" x 2 1/2" x 3/8" 33400190</p> |  <p>FULL COUPLER PROTECTOR 830775 HALF COUPLER PROTECTOR 830950</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>24 R TIE DOWN STRAP 320530</p> |  <p>1" [25mm] BELTING 804198</p> |  <p>RUBBER FLAP PROTECTOR 890375</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>24 COVER JOINT WINCH ANGLE 30005010</p> |  <p>RTV SILICONE 804509</p> |  <p>HEX BOLT #8" x 2" #10 x 50mm 800218 #8" x 2 1/2" #10 x 60mm 800085 #8" x 3" #10 x 75mm 800050 NUT - 4" [41] 801050 CARR BOLT 1/2" x 4" #12 x 100mm 800820 NUT - 1" [25] 893163 WASHER - 1/2" [13] 895164</p> |  <p>3/8" RWD CHUCK DRIVER 18mm 804100 PVC GLUE 804520 #1/8" - 14 x 3/4" (PK 3) MS-14 x 18mm 800020 #12-24 x 1 1/8" (PK 3) #12-24 x 32mm 803020</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>BUILDING JOINER BRACKET 2" x 3" x 3/16" ANGLE 80 x 75 x 5mm 30003420</p> |  <p>24 FT STABILIZER 30012279</p> |  <p>Norseal Butyl Tape 100FT Roll 804510</p> |  <p>5/16" MAG CHUCK DRIVER 5mm 840005 LUBRICANT .55L GREENLEE WINTERCEL 8045085</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



IMPORTANT – READ MANUAL FIRST

Improper Site Preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

MAINTENANCE SCHEDULE

Failure to comply with this maintenance schedule will invalidate the warranty.

A. INSTALLATION ADJUSTMENT

1. The cover of your Atlas building may relax after installation. The fabric is designed to be under tension at all times to prevent wear and ensure a long life. Adjust the cover over the entire building to remove as many wrinkles and creases and bagging as possible. For most buildings 35 - 45 ft. lbs [48 - 60 N.m] of torque provides adequate cover tension. Adjust the end winches until the fastening pipe is level. Re-tension end flaps.

NOTE: *Building covers installed during cooler weather tend to relax more than covers installed during warmer weather. If your cover was installed in cooler weather recheck its tightness on the first available warm sunny day.*

B. INSTALLATION INSPECTION - 1 WEEK MAINTENANCE

1. Cover - ensure the cover straps are secure and the cover is tensioned. For most buildings 35 - 45 ft. lbs [48 - 60N.m] of torque provides adequate cover tension. Adjust cover tension as required..
2. Belting - check for premature belting wear and ensure tightness.
3. End Flaps - ensure the flaps remain tight and securely fastened.
4. Aprons - ensure the aprons are securely fastened.
5. Cables - ensure the cables are tensioned according to the installation instructions.
6. Steel - Seal all surface penetration marks with a sealant or high zinc content paint.

C. QUARTERLY MAINTENANCE

1. Repeat above "INSTALLATION INSPECTION - 1 WEEK" a minimum of 4 times per year.

D. GENERAL MAINTENANCE

1. **Cover** - Clean with water and non-abrasive soap. Do not use solvents or chemicals. Use caution when using high pressure washers.
2. **Snowfall** - Snow accumulating on the cover could indicate that the cover needs re-tensioning. Remove snow and check tension.
3. Use caution when using heavy equipment or manually clearing away avalanched snow.

E. ACCIDENTAL DAMAGE

Cover: Sharp objects can puncture and damage the cover. Do not attempt to seal or repair with conventional materials. Call your local BRITESPAN representative. They will be able to assess the damage and facilitate replacement or provide a heat-weld service if the cover is repairable.

Structure: Report and document any damage to the steel structure, components or foundation immediately. Have your local BRITESPAN representative inspect the damage and provide a comprehensive evaluation. Perform any temporary or emergency repairs as determined. Replace or repair damaged components as determined.



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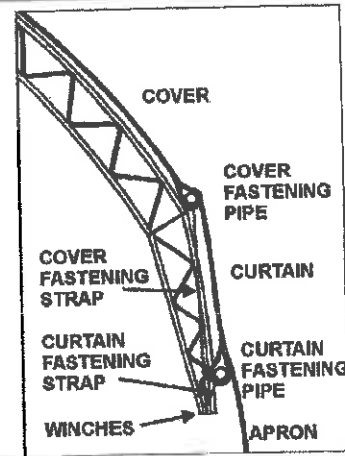
PHOTO REGISTRATION INSTRUCTIONS.....33

STEP 1

INSTALLATION TYPE











LEG MOUNT

- The leg attaches to the top surface of the foundation.
- The cover fastening pipe is located above the first coupler and the cover lashing winches attach to the leg anchor bolts.
- The curtain fastening pipe is located above the base and the curtain lashing winches attach to the leg anchor bolts.
- Typically the cover has an attached finish/seal apron.



STEP 2

REQUIRED EQUIPMENT

1. String and string level for alignment. 
2. Stakes and tape to mark the post/pile locations. 
3. Movable scaffolding or a platform lift. 
4. Crane or equivalent to lift arches into the vertical position. 
5. Temporary bracing - dimensional lumber or rope.
6. Square level. 
7. 2 to 4 lengths of cover pull rope 125' [40M] or longer. 
8. Torque wrench. 
9. Hacksaw. 
10. #10 x 3/4" [#10 x 20mm] round head Philips screws and bit. 
11. 13/16" [21mm] - 15/16" [24mm] - 1 1/8" [29mm] wrenches and sockets. 
12. **Optional** -A transit (available from a local rental store); power wrench.

REQUIRED FOR BUILDINGS OVER 144' IN LENGTH

1. Drill - Appendix A
2. Rubber mallet - Appendix A
3. Caulking gun - Appendix B

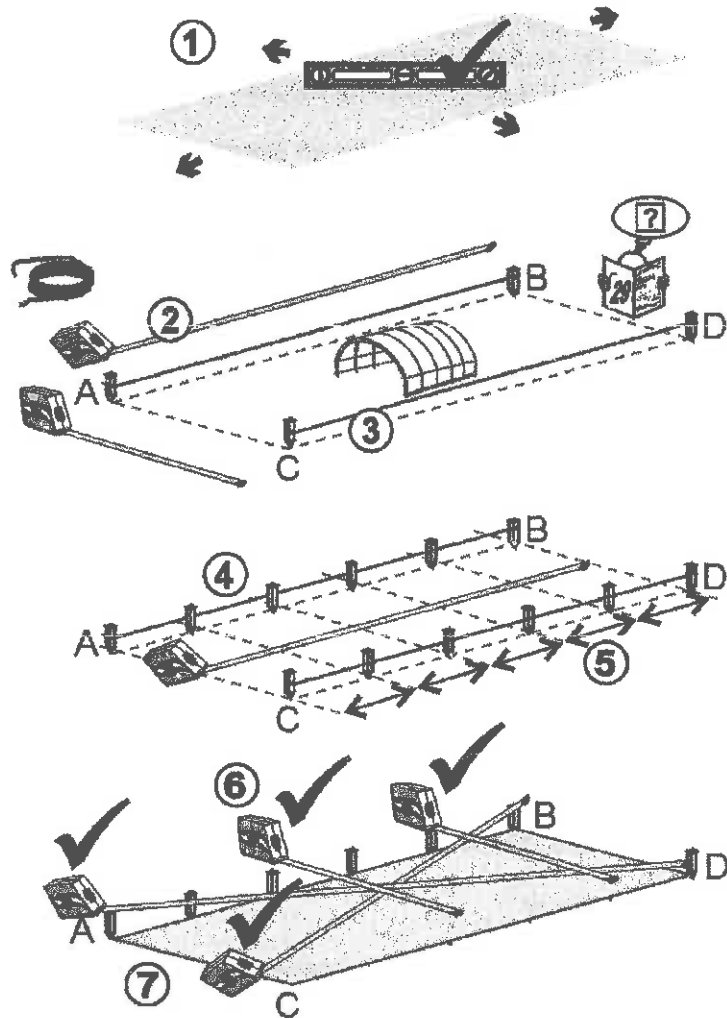


BUILDINGS OVER 144' [44M] IN LENGTH See STEP 34, Page 21

STEP 3 SITE PREPARATION

BRITESPAN IS NOT RESPONSIBLE FOR FOUNDATION DESIGN OR INSTALLATION.

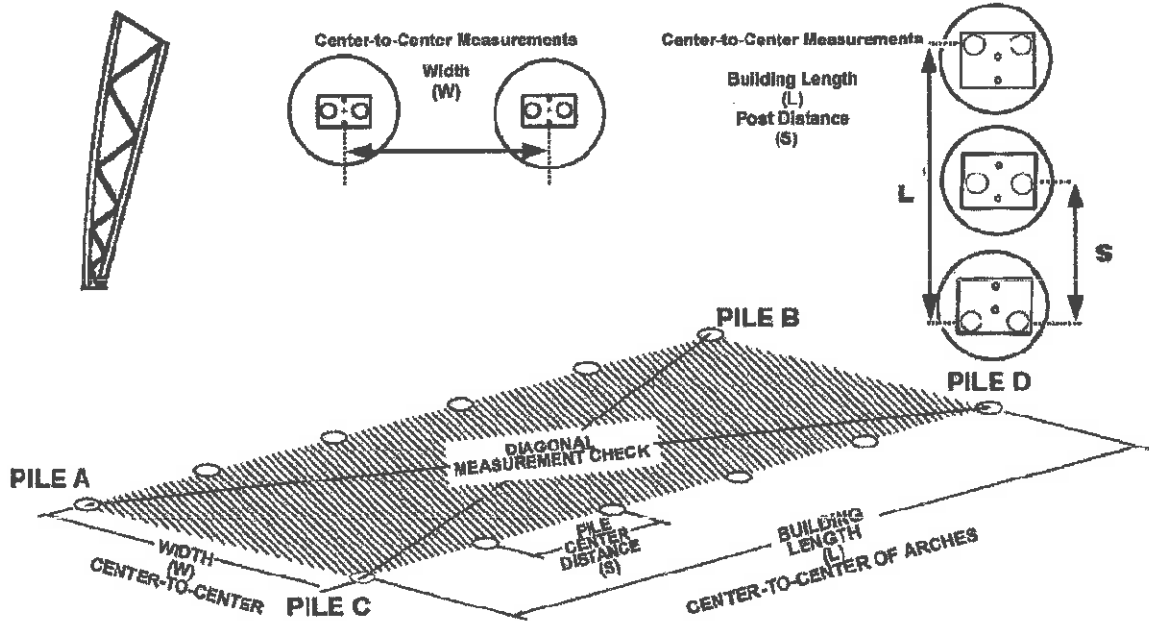
1. Start with a level site.
2. Measure and stake out the location of the corner piles A, B, C and D. Use an accepted method to make the foundation straight and square. See *Squaring A Building Layout* on Page 29 for assistance.
3. String lines from A to B and from C to D.
4. Measure and stake the arch on-center intervals along the length of the building using a running measurement.
5. Check linear measurements by measuring the distance between each stake. Distance should be equal.
6. Check the width measurements the entire length of the building.
7. Check the square of the foundation by measuring diagonally. Diagonal measurements should be equal.



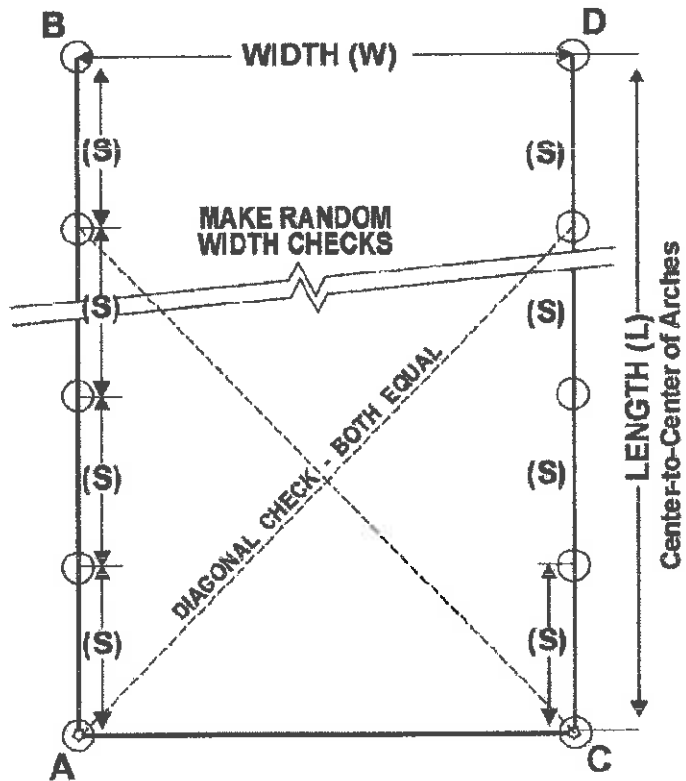
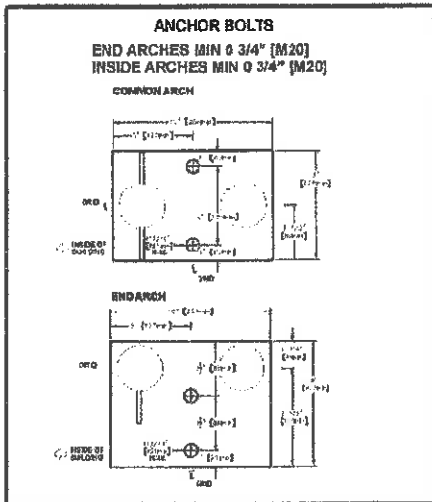
NOTE: Buildings over 144' [44M] in length have more than one cover. Even with this feature, the foundation continues as a running measurement for the entire length of the building.

STEP 4

BUILDING LAYOUT



72' WIDE - ATLAS 24
C/C ANCHOR BOLT
(W) WIDTH = 71' 6"
[21805mm]
(S) ON-CENTER
AS ORDERED
(L) LENGTH
AS ORDERED



ALL MEASUREMENTS ARE CENTER-TO-CENTER

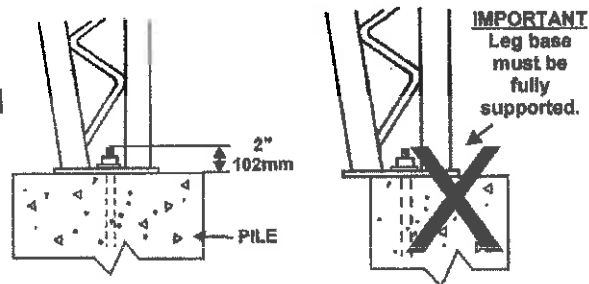
STEP 5

ANCHOR BOLTS

ANCHOR BOLTS - not supplied

1. **End Arches** - Minimum \varnothing 3/4" [M20] .
Inside Arches - Minimum \varnothing 3/4" [M20]
Minimum 2" [102mm] exposed thread.
Washers are required.
Two (2) anchor bolts are required for each leg.
Two (2) additional 5/8" [M16] end flap winch and winch mount anchor bolts are required at each end leg.

Consult a foundation engineer to determine the type and size of anchor.



See anchor bolt template on Page 26

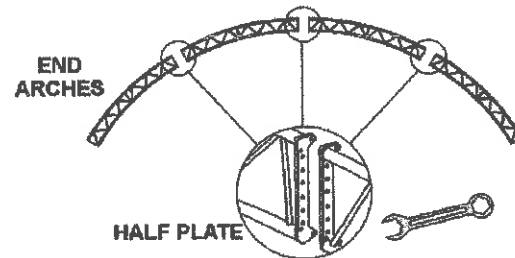
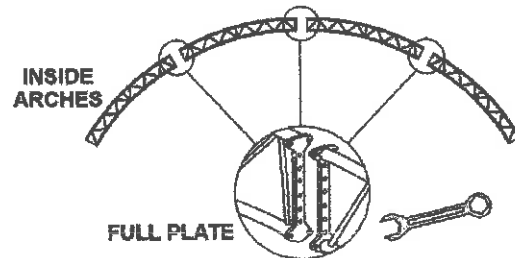
STEP 6

ASSEMBLE THE ARCHES

IDENTIFY AND LAYOUT ARCH TRUSSES.

1. Identify and separate the inside trusses from the end trusses. Inside trusses have full coupler plates. End trusses have half coupler plates.

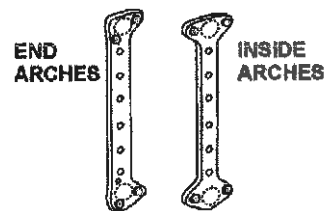
72' WIDE - ATLAS 24
Each completed arch requires 4 truss sections.



ASSEMBLE ARCHES

2. **END ARCHES AND INSIDE ARCHES**
4 of 5/8" x 2" [M16 x 50mm] bolts/nuts

LEAVE THE 6 HOLES IN THE CENTER OF THE COUPLER EMPTY



Tighten all bolts/nuts to assembly torque value- See Page 30

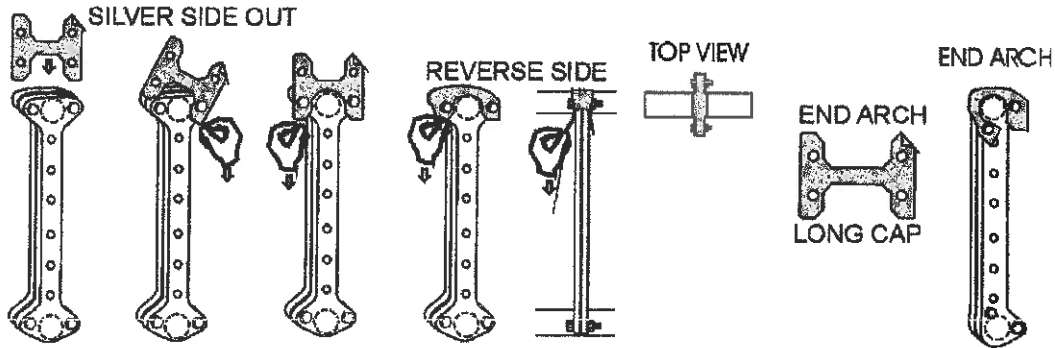
STEP 7

INSTALL COUPLER PROTECTORS

The coupler protectors fit OVER the bolt head and nuts of the TOP of the ASSEMBLED arches.

The coupler protectors ARE REQUIRED to protect the fabric cover.

WARNING: FABRIC DAMAGE WILL OCCUR IF NOT INSTALLED. Remove or smooth any burrs or irregularities before installing.

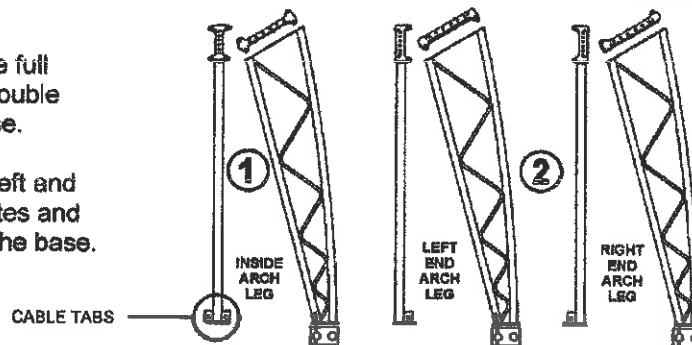


IMPORTANT - Do not attempt to install the coupler protectors UNDER the bolts or nuts. The fabric will deform, twist and tear off.

STEP 8

IDENTIFY THE LEGS

1. Inside arch legs have full coupler plates and double cable tabs at the base.
2. End arch legs have left and right half coupler plates and single cable tabs at the base.



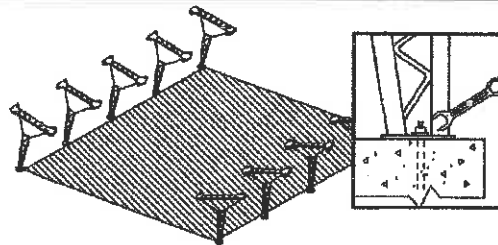
STEP 9

INSTALL THE END ARCH LEGS

TIGHTEN ALL ANCHOR BOLTS COMPLETELY.

Under normal conditions the secured the legs will stand on their own.

END LEGS - The single cable tab is always on the inside.



Tighten all bolts/nuts to assembly torque value- See Page 30

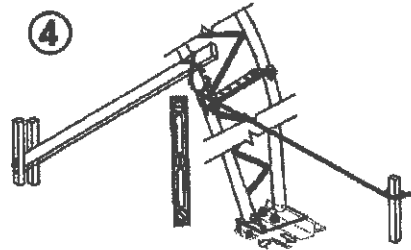
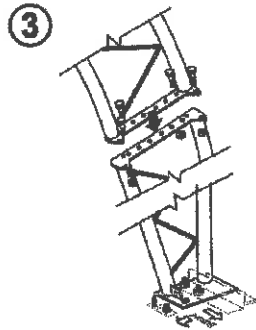
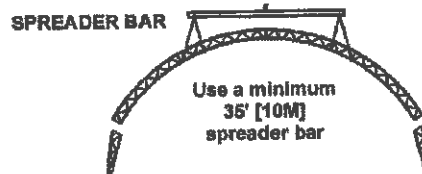
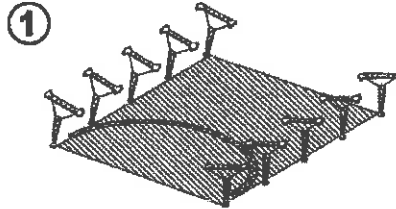
STEP 10

ERECT END ARCH

LEGS MUST BE ATTACHED TO THE FOUNDATION BEFORE ERECTION.

MOVE END ARCH INTO POSITION

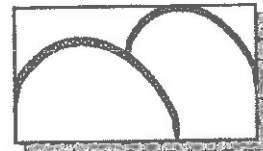
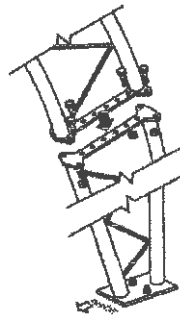
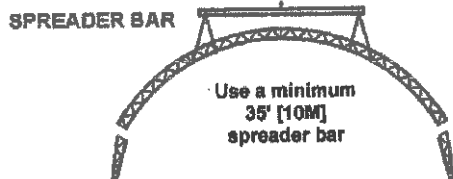
1. Position an end arch so that the arch can be tilted upright.
2. Attach a spreader bar to the arch and elevate the truss into its upright position, and center it on top of the legs. Use extreme caution when lifting arches.
3. Lower the arch into position and attach to the legs using 4 of 5/8 x 2" [M16 x 50mm]
4. Plumb and brace the arch securely using rope or dimensional lumber.



WARNING: TRUSS WILL FAIL AND WARRANTY IS VOID IF A SPREADER BAR IS NOT USED.

STEP 11

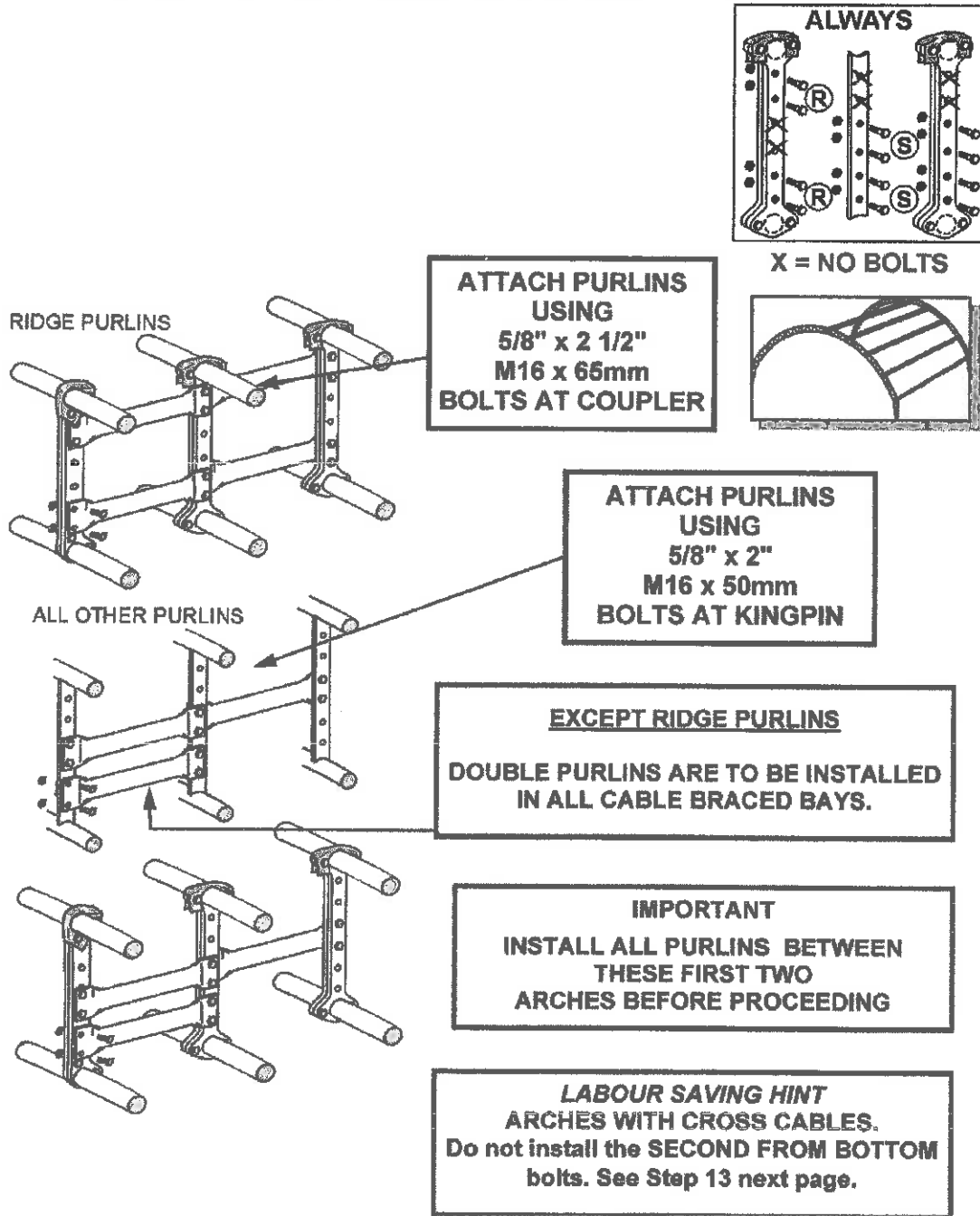
ERECT THE NEXT ARCH



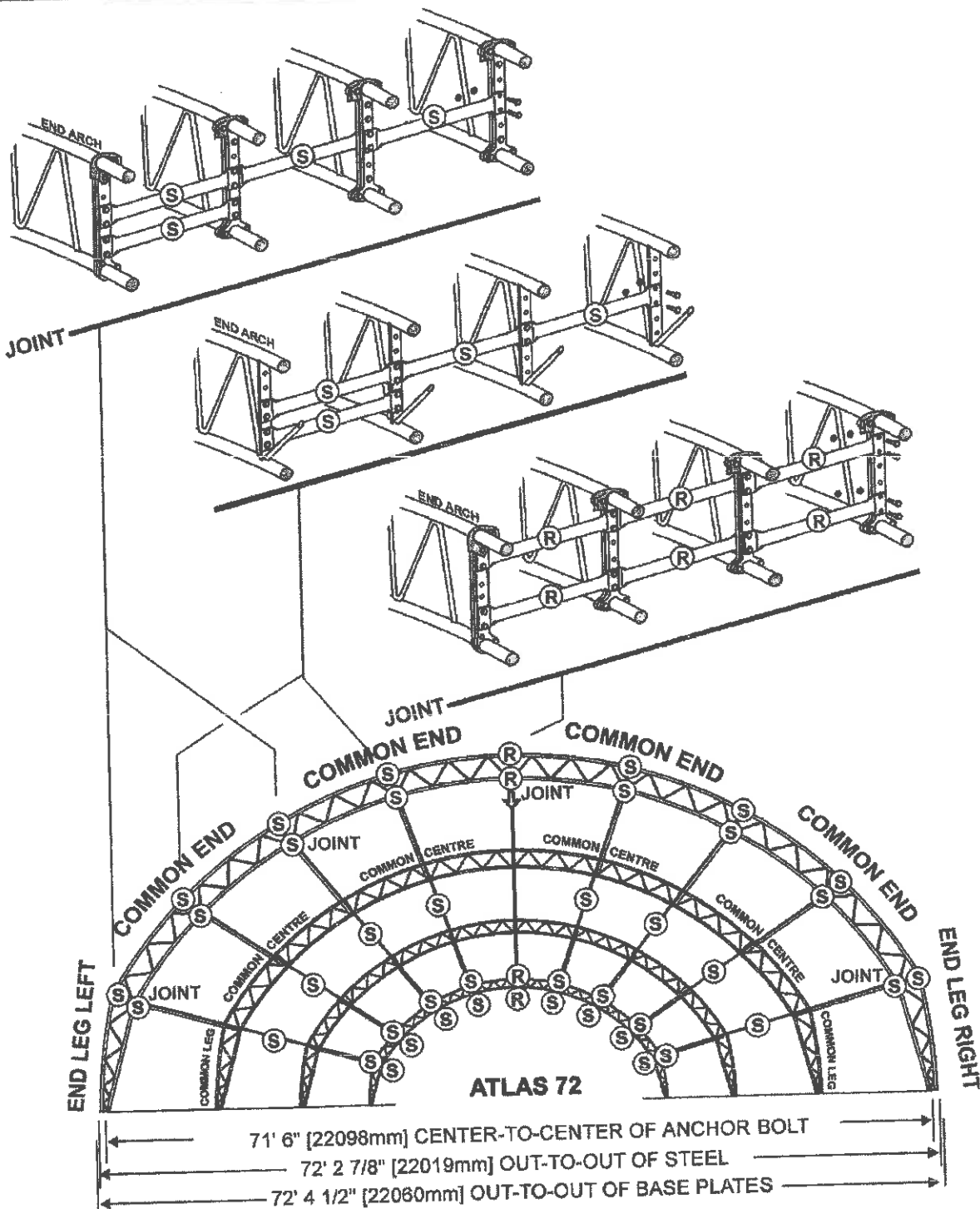
Tighten all bolts/nuts to assembly torque value- See Page 30

STEP 12

INSTALL PURLINS



Tighten all bolts/nuts to assembly torque value- See Page 30



Tighten all bolts/nuts to assembly torque value- See Page 30

STEP 13

INSTALL CROSS CABLES

Cross cabled end arch (or arches) create a structural frame for the rest of the building.

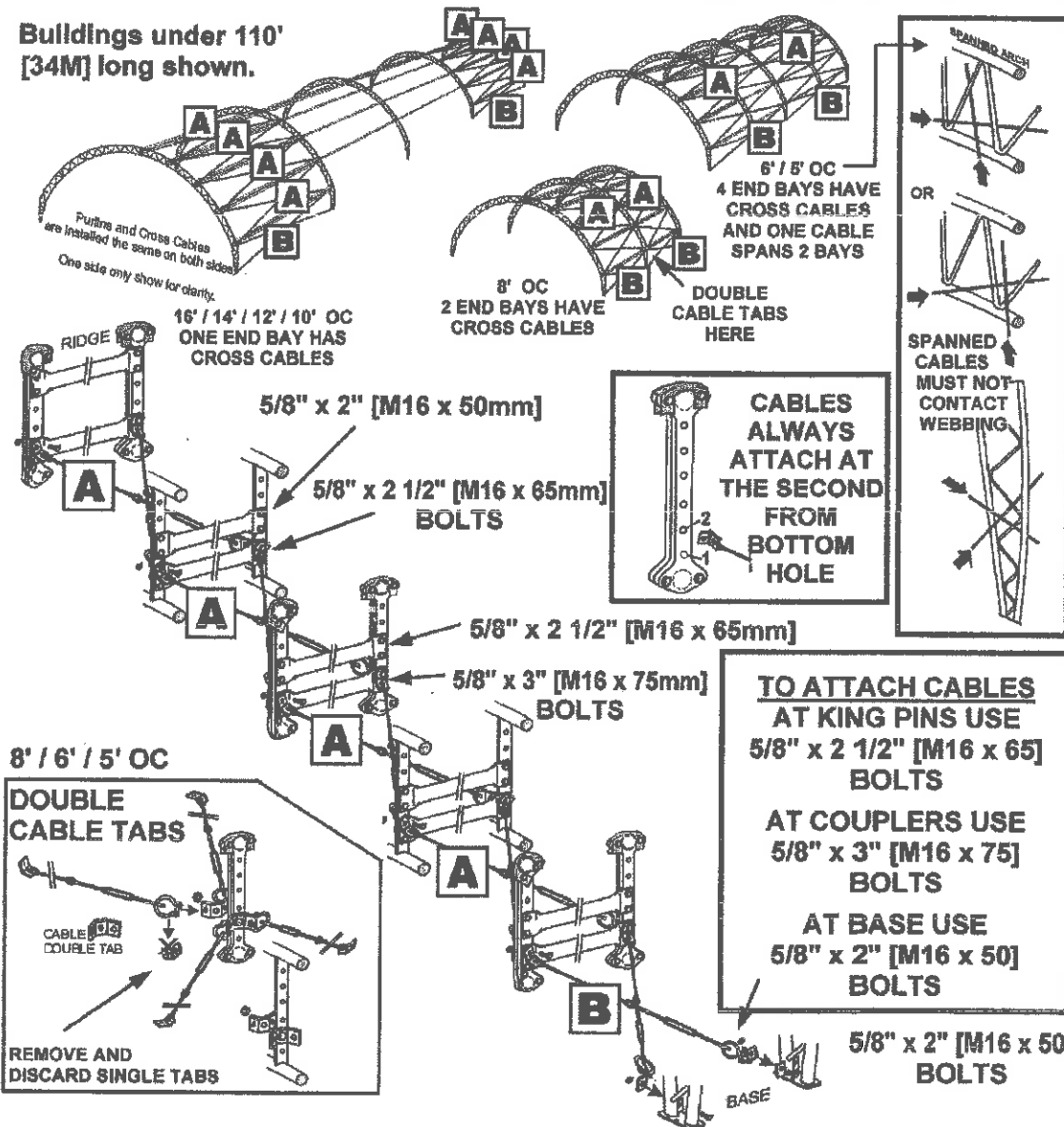
This Atlas building uses 2 cable length.

Install LONG cables in every LOCATION **A**.
Install SHORT cables in every LOCATION **B**.



NOTE: Arch spacing determines cable length. More than one cable length is supplied when any portion of the building has a different arch spacing. See Building Components, Page 1, of this manual for cable lengths for specific arch spacings.

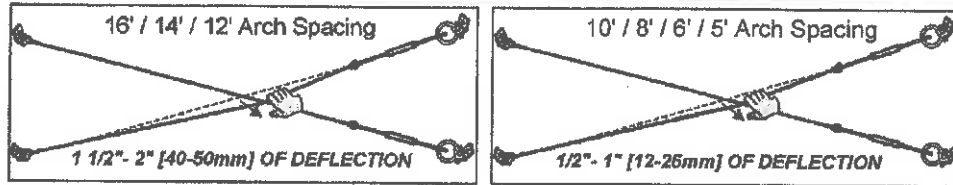
Buildings under 110' [34M] long shown.



Tighten all bolts/nuts to assembly torque value- See Page 30

STEP 14

TENSION CROSS CABLES

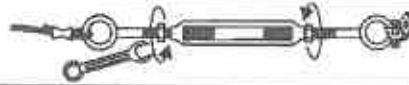


MAKE CROSSED CABLE LENGTHS EQUAL TO SQUARE THE FRAME



STEP 15

TIGHTEN CABLE TURNBUCKLE LOCKNUTS



STEP 16

ERECT ALL REMAINING LEGS AND ARCHES

ERECT ALL REMAINING LEGS AND ARCHES AND INSTALL ALL PURLINS AND ALL CROSS CABLES

STEP 17

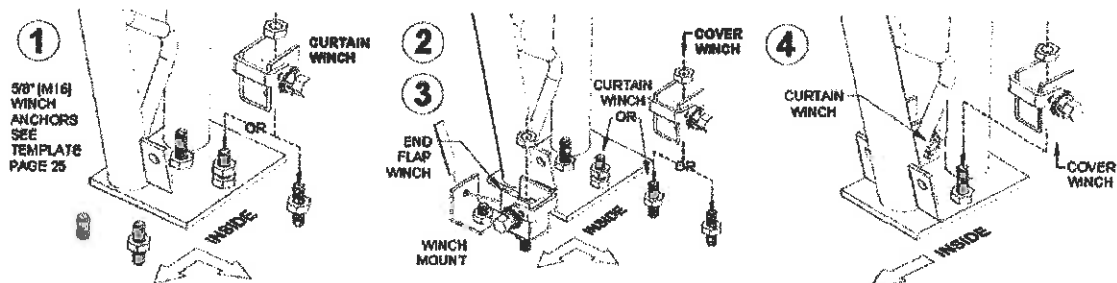
BUILDINGS OVER 144' [44M] - SEE APPENDIX A

If you are erecting a building that is over 144' [44M] go to APPENDIX A on Page 22 of this manual to determine cross cable placement and cross cable double tab placement.

STEP 18

INSTALL LASHING WINCHES

1. END ARCHES- Attach curtain lashing winches to the inside leg anchor if using a 5/8" anchor bolt long enough to double nut. If using 3/4" leg anchors, install a separate 5/8" anchor for curtain winch.
2. END ARCHES- Install cover winch on a separate 5/8" anchor.
3. The end flap cable winch can have 2 anchor bolts. Depending on end flap termination, one anchor may be required for a winch mount bracket to redirect cable. Install 5/8" [M16] anchors.
4. INSIDE ARCHES- Install lashing winches on the anchor bolts if using 5/8" diameter, otherwise install a separate 5/8" anchor for each winch beside the leg base.

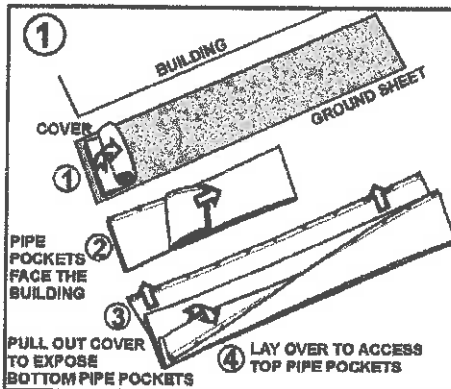


Tighten all bolts/nuts to assembly torque value- See Page 30

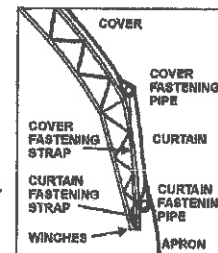
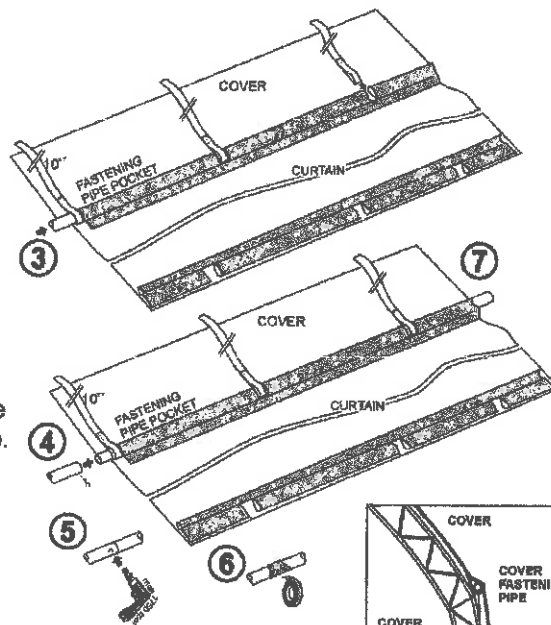
STEP 19

INSTALL COVER FASTENING PIPES

Use a ground sheet to protect the cover while it is being prepared for installation.



1. Roll out the cover and leave a small walk area along the building. Align the cover evenly to each end of the frame.
2. Pipe raw edge can damage pocket fabric. Wrap or cap leading edge of pipe.
3. Install BOTH cover fastening pipes only and the LONG sewn lashing straps at this time.
- 4.- 6. Use 1/4 x 3/4" [M6 x 20mm] Tek screws to fasten the pipes together. Wrap with duct tape (tape optional - not supplied).
7. Install fastening pipe the full length of the building.



NOTE: Fastening pipes are supplied in factory cut lengths. Some buildings will require measured cuts, possibly on two lengths of pipe.

BUILDINGS USE 2" X 3" [50 X 75MM] RECTANGULAR FASTENING PIPE OR 2 7/8" [60MM] ROUND FASTENING PIPES

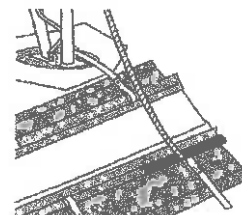


OR

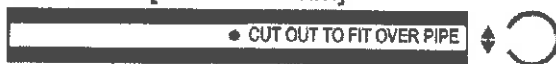


2 7/8" [60MM] ROUND PIPES

HINT: 2" x 3" [50 x 75mm] and Pipe - Make an ABS or PVC Pull-Over Pipe for every arch pull point. This reduces leading edge friction and risk of damage to the fabric when used in conjunction with the recommended installation procedure for covers.



Ø 3" x 24" [M80 x 610mm]



Drill hole to accommodate pull rope

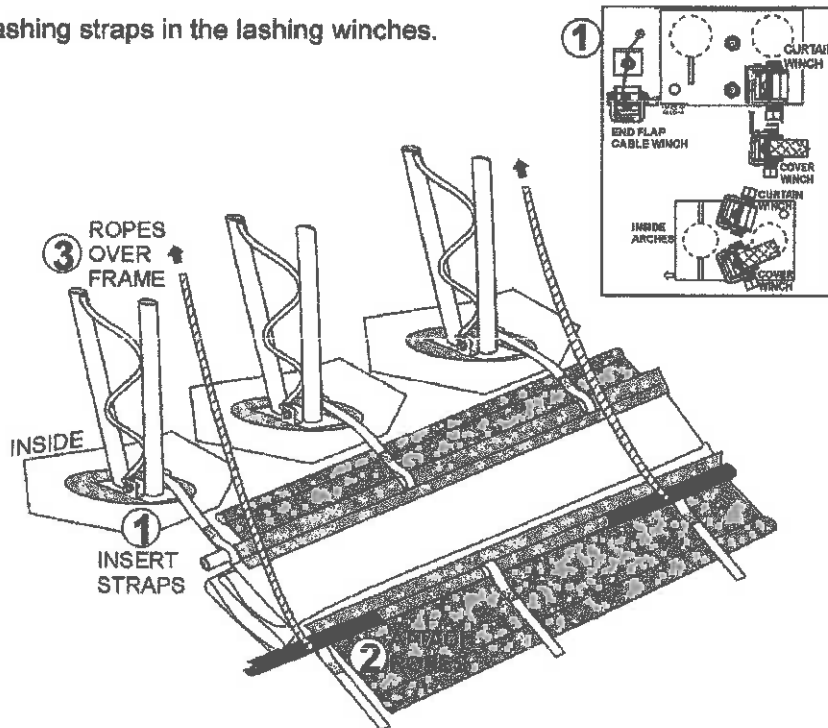


STEP 20

INSTALL THE COVER

NOTE: *DO NOT* install the cover onto the frame in high wind conditions. A slight breeze is the most advantageous for cover installation. Take advantage of the breeze by pulling the cover up over the arches with the breeze blowing into the cover . . . like a sail filled with air.

1. Secure the cover lashing straps in the lashing winches.
2. On the opposite side of the cover (the side of the cover that is furthest from the frame), tie several ropes, approximately 30' [10M] apart, to the steel fastening pipe through the notched hole.
3. Throw the free end of the ropes over the frame to the opposite side of the building.



CHECK LIST:

- **BEFORE** proceeding ensure that the cover is **POCKET SIDE** up.
- **ALL** coupler plates have coupler protectors.
- **BOTH** fastening pipes are in place.
- Fastening straps near side are **SECURED** in the lashing winches.
- Ropes are secured to the **OPPOSITE** pipe and passed over the frame.
- **NO WIND** or there can be a light breeze (ideally from rope pulling side).



USE CAUTION WHEN INSTALLING COVERS WITH MOTORIZED EQUIPMENT. PRE-ARRANGE COMMUNICATION DEVICES OR HAND SIGNALS TO RELAY DIRECTIONS TO EQUIPMENT OPERATORS.

4. Pull the cover over the frame **EVENLY**, **CAREFULLY** and **SLOWLY**.
5. Insert the cover lashing straps in the lashing winches and **loosely secure**. **DO NOT TIGHTEN**. Adjust the cover so that it is square and evenly centered on the frame. *The end flaps should overhang evenly at both ends.*

NOTE: *DO NOT LEAVE THE COVER UNATTENDED UNDER ANY CIRCUMSTANCES until final assembly and tightening has been completed.*

STEP 21

INSTALL COVER PVC PIPE

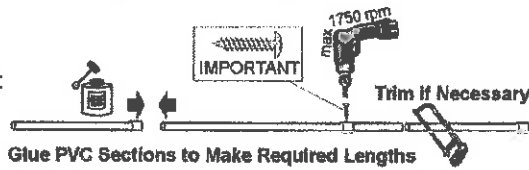
1. Once the cover is on the frame and is sitting centered, square and straight, check to ensure the cover extends approximately 24" [610mm] on both ends of the building.
2. Drill a hole in the smooth end of one PVC tube and tie the pull line to it. Wrap this leading end with duct tape.



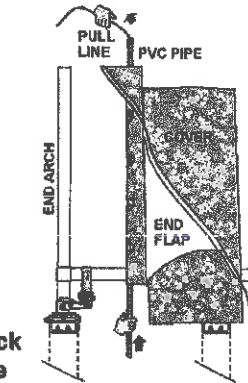
Hint - A small funnel or cone (not supplied) on the leading edge of the PVC will help spread the PVC pocket.

3. Push - Pull the PVC into the pocket.
Glue and screw the lengths of PVC together as you proceed.

IMPORTANT -
ALWAYS install a screw (not supplied) at every connection. PVC glue loses adhesive qualities when applied in cold weather and in damp and humid conditions.



Hint: PVC tubes should slide easily into the pockets. Do not force. Check for twisted fabric or misaligned pocket openings if you experience difficulty.



STEP 22

TENSION COVER ENDS

1. Operate the cover fastening tube end arch lashing winches to remove the slack from the lashing straps. **DO NOT TENSION.**

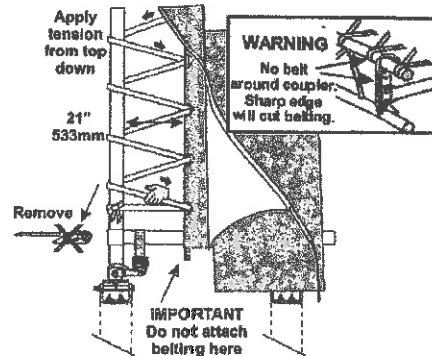
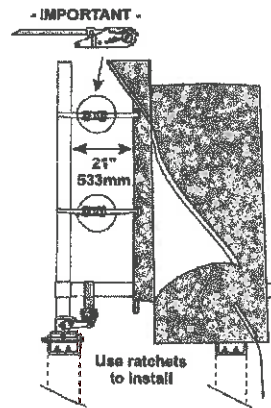
Hint - Use ratchet straps (not supplied) on both ends, evenly spaced, to tension and hold the cover lengthwise. Adjust to obtain a distance of 21" between the Arch tube and the PVC pipe at both ends. Then lace the cover to the end arch.

2. **Lace - start at the base.** Lace the 1" [25 mm] belting around the PVC tube through the notches and then back to the top truss tube of the end arch - in 10'-12' [3M-4M] sections - all the way up to the top center of the building. Tie off each section. Repeat lacing from other base.

Hint - The cover shifts down when final tension is applied. Always try to lace the belting on the down side of the web weld.

3. **Tension - start at the top center.** Work your way down from the secured end and use force to tighten the belting. Finish by tying the belting off on each section. The PVC tube should be parallel with the end arch all the way around.
4. Lace and tension the opposite end of the building. The cover should be tight and secure from end to end when finished.

Hint: Trim the belting excess after you have finished the tighten-down.



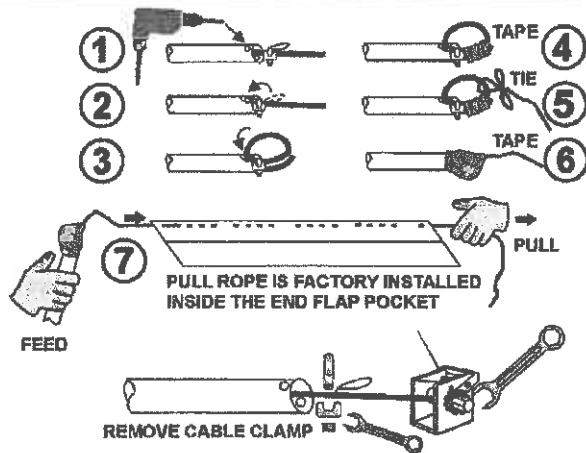
STEP 23

INSTALL END FLAP CABLE

1. Secure BOTH the cable and PVC tube casing to the end flap pull rope in an acceptable manner. Protect the fabric from any sharp edges.
2. Feed and pull the cable through the end flap until it is equal on both sides.

You may require a third person on a lift to assist the cable through the folds and creases. You can try flipping the end flap flat over the top of the building.

3. The cable clamps can be removed after the cable is secured into the lashing winch.

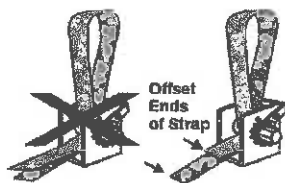
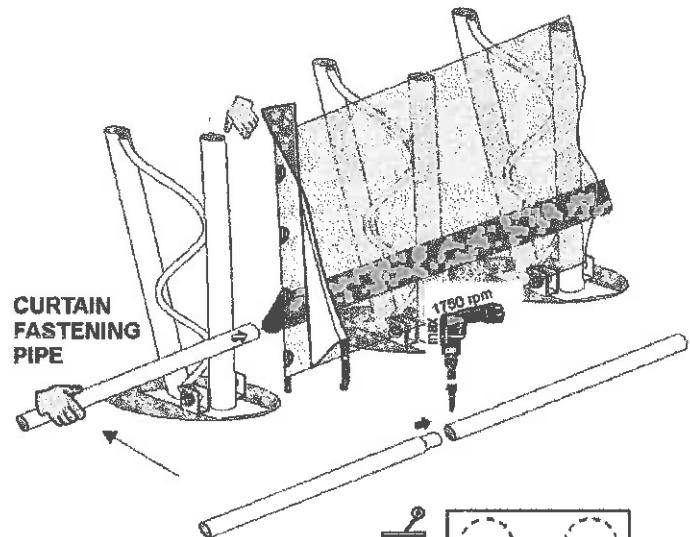


WARNING - Pull slowly or rope burn will damage fabric.

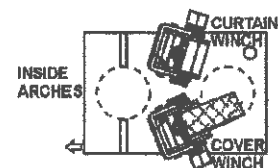
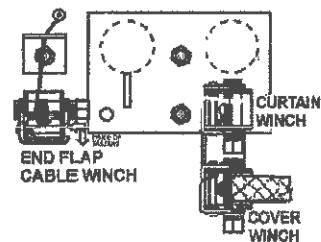
STEP 24

INSTALL CURTAIN FASTENING PIPES

1. Pipe raw edge can damage pocket fabric. Wrap or cap leading edge of pipe.
2. Install BOTH curtain fastening pipes.
3. Use 1/4" x 3/4" [M6 x 20mm] Tek screws to fasten the pipes together. Wrap joint with duct tape (optional - not supplied).
4. Insert the SHORT lashing straps in the lashing winches.



5. Add light tension only at this time.



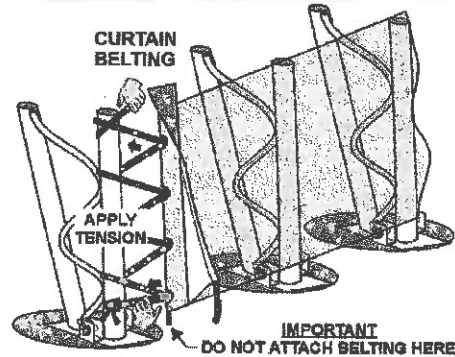
STEP 25

TENSION THE CURTAIN ENDS

1. Tension the curtain ends.

Follow STEP 21 instructions on previous page.

Hint - The fabric shifts down when final tension is applied. Always try to lace the belting on the down side of the web weld.

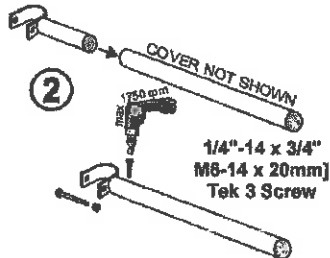


STEP 26

TERMINATE ALL FASTENING PIPES

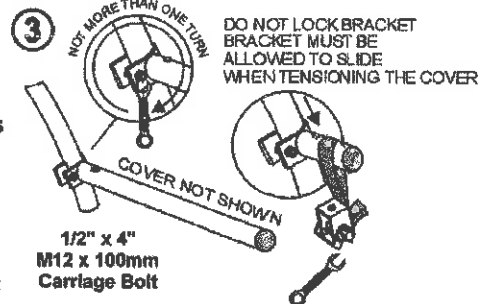
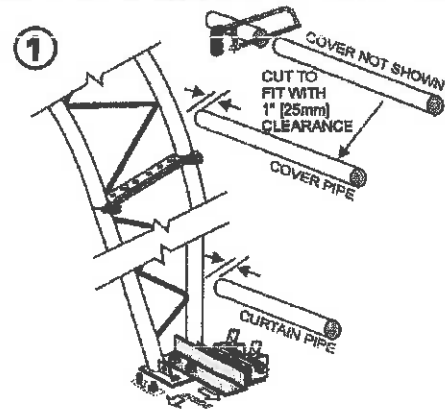
1. Cut the ends of the fastening pipe to fit inside the arch with 1/2" - 1" [12 - 25mm] clearance.

2. Install the saddle bracket in the end of the tube and secure using a single 1/4"-14 x 3/4" [M6 -14 x 20mm] Tek 3 screw.

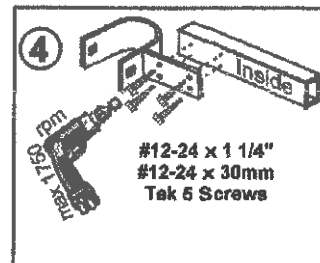


3. Fit the saddle over the arch tube and install a 1/2" x 4" [M12 x 100mm] carriage bolt/nut.

4. Trim the rectangular fastening pipes using above instructions. Fit saddle bracket on truss and align on pipe before marking mounting holes and fastening with #12-24 x 1 1/4" [#12-24 x 30mm] Tek 5 screws.



IMPORTANT: Deform the bracket by tightening the 1/2" [M12] bolt/nut as far as possible. This will reduce any protruding edges. Then release the nut until you achieve a one turn lock. The bracket must be allowed to slide on the truss tube when the cover is tensioned.

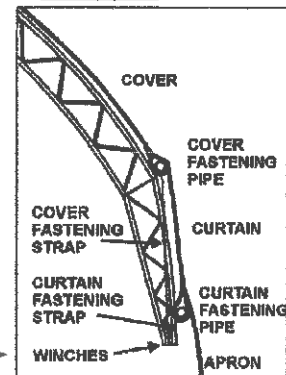
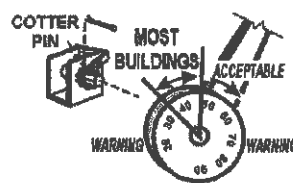


Tighten all bolts/nuts to torque value- See Page 30

STEP 27

TENSION THE COVER

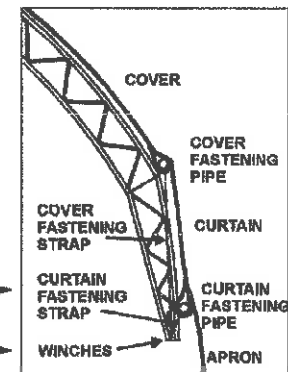
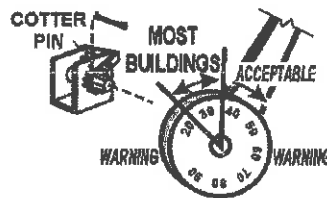
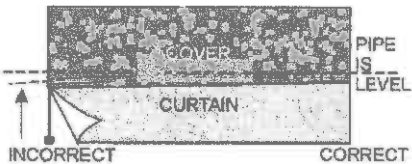
1. Use a 1 1/8" [29mm] wrench to tighten the cover lashing straps **EXCEPT THE END STRAPS** on both sides of the building. The tension for the lashing winches on this building has been calculated at **35 - 45 ft. lbs. [48 - 60N.m]**. **DO NOT EXCEED 45 ft. lbs. [60N.m]**. Use a *torque wrench*. Remove as many wrinkles and creases and bagging as possible.
2. Now tension end lashing straps until the cover fastening pipes are level. Install a cotter pin in the lashing winch pilot holes to lock the release lever.



STEP 28

TENSION THE CURTAIN

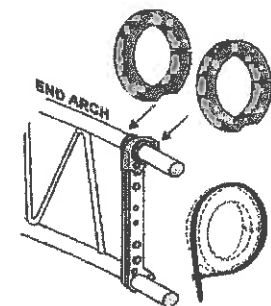
1. Use a 1 1/8" [29mm] wrench to tighten the curtain lashing straps **EXCEPT THE END STRAPS** on both sides of the building. The tension for the lashing winches on this building has been calculated at **25 - 35 ft. lbs. [34 - 48N.m]**. **DO NOT EXCEED 35 ft. lbs. [48N.m]**. Use a *torque wrench*. Remove as many wrinkles and creases and bagging as possible.
2. Now tension end lashing straps until the curtain fastening pipes are level. Install a cotter pin in the lashing winch pilot holes to lock the release lever.



STEP 29

INSTALL RUBBER END FLAP PROTECTORS

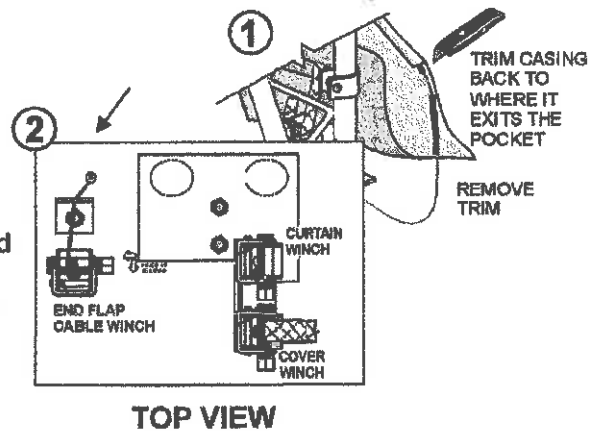
1. All buildings require 2 rubber end flap protectors installed at every coupler connection on the upper truss tube on the end arches.
2. Use zip ties or tape to ensure the rubber end flap protectors stay in position during end flap tensioning.
3. **WARNING** - DO NOT tension the end flap without installing the rubber protectors. **DAMAGE WILL OCCUR**. If protectors are missing, wrap \varnothing 1/2" [12mm] rope at the coupler and tape to secure.



STEP 30

TENSION THE END FLAP CABLES

1. Trim the plastic cable casing back to where it exits the fabric pocket.
2. Thread the end flap cable through the hole in the winch mount bracket and secure in the end flap winch so that the windings bind the cable end.
3. Tighten both sides of the building's end flaps until the slack in the flap is gone. Repeat this procedure for the opposite end of the building.



It may be necessary to repeat the tightening several times at both ends of the cover.

STEP 31

SECURE THE APRON

ALWAYS SECURE THE APRON

The fabric is designed to be under tension at all times.

GROUND

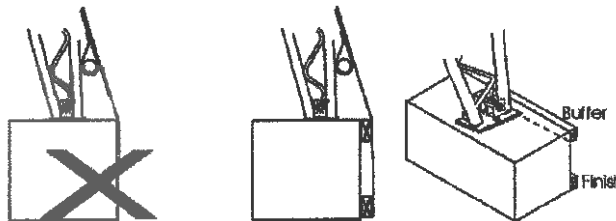
Use dimensional lumber to attach the apron to the frame or foundation. Or back fill the apron at the foundation.

WALL

Protruding edges on fabric are potential wear points.

CONCRETE

Never install fabric over concrete edges. Always install a dimensional lumber buffer or equivalent.



STEP 32

READ MAINTENANCE SCHEDULE Page 2

STEP 33

COMPLETE WARRANTY REGISTRATION

www.britespanbuildings.com

**APPENDIX A
EXTRUSION CONNECTION**

TYPEB

TYPEC

TYPED

**APPENDIX B
FLAP OVERLAP CONNECTION**

TYPEA

APPENDIX A

EXTRUSION CONNECTION

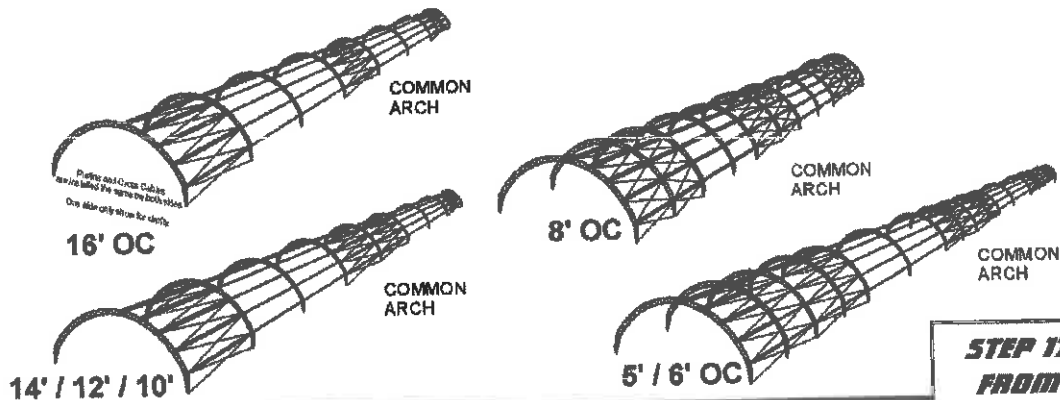
Multiple covers are provided for buildings over 144' [44M] in length. This enables ease of onsite handling and installation. Normally covers are supplied in equal or near equal lengths. The longest cover length is 144' [44M].

Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. CROSS CABLE INSTALLATION

- A. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.

THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.



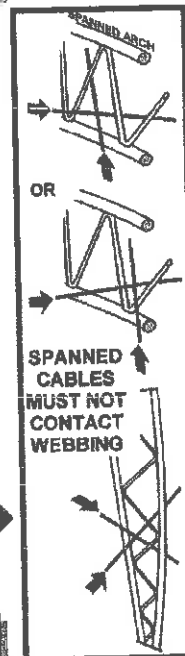
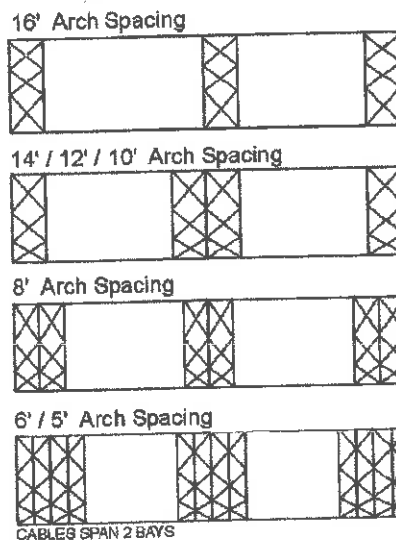
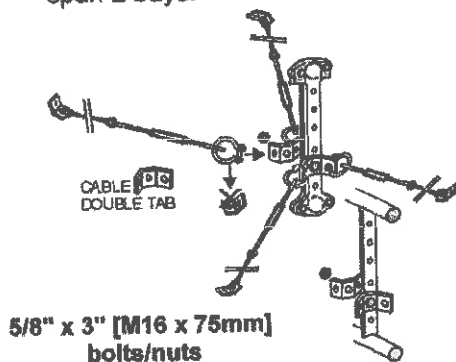
**STEP 17
FROM
PAGE 13**

DOUBLE TAB AND CROSS CABLE PLACEMENT

- B. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.

NOTE: Except ridge purlins - Double purlins are to be installed in all cable braced bays. See Step 12.

NOTE: 6' and 5' arch spacing - cables span 2 bays.

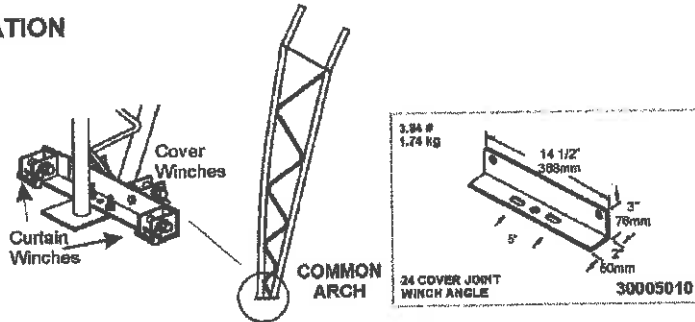


Tighten all bolts/nuts to assembly torque value- See Page 30

2. WINCH BRACKET INSTALLATION

Attach the cover joint winch angle bracket to the common arch base anchor bolts.

Attach the winches using 5/8" x 1 1/4" [M16 x 30mm] bolts/nuts.

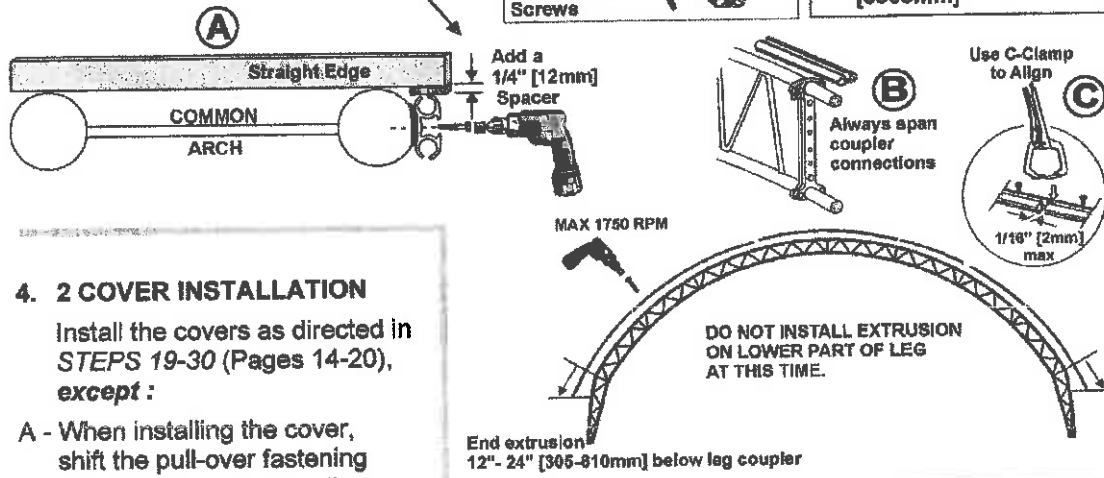


3. INSTALL EXTRUSION

Apply Norseal butyl tape to underside of extrusion.

Install extrusion on the Common arch as shown using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.

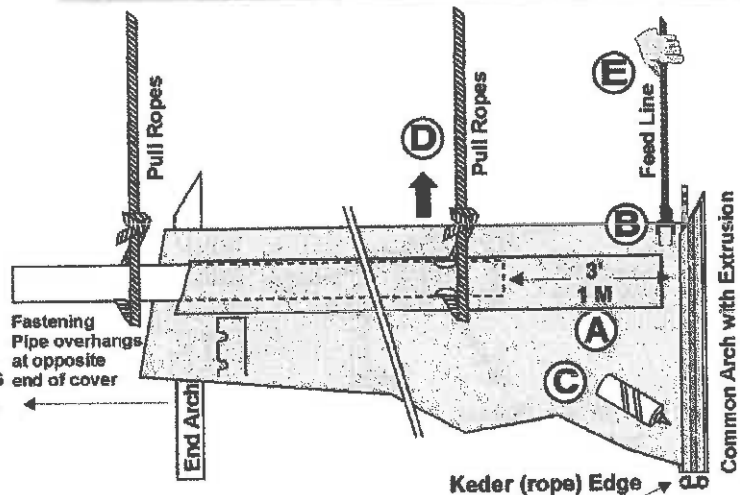
NOTE: SPACER REQUIRED



4. 2 COVER INSTALLATION

Install the covers as directed in STEPS 19-30 (Pages 14-20), **except** :

- A - When installing the cover, shift the pull-over fastening pipe 3' [1M] away from the extrusion end of the cover (the keder rope edge).
- B - Attach a light feed line to the keder D-ring at the leading edge of the cover.
- C - Charge the extrusion with WinterGel Lubricant.
- D - PULL the cover with the fastening pipe.
- E - FEED the keder edge evenly with the D-ring line while installing.
- F - Fastening pipe end brackets are not required at common



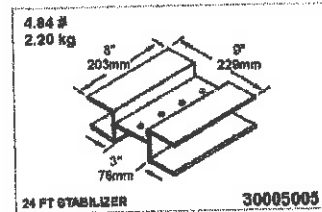
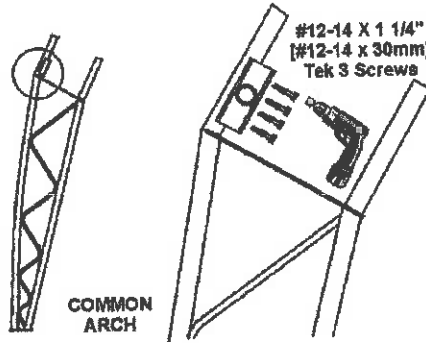
YOU MUST USE RATCHET STRAPS TO GET ADEQUATE LENGTHWISE TENSION ON THE COVER. SEE STEP 22, Page 16.

5. STABILIZER BRACKET INSTALLATION

DO NOT INSTALL UNTIL AFTER THE COVER IS INSTALLED - DAMAGE TO FABRIC COULD OCCUR.

- A. Release the cover lashing winches on the common arch.

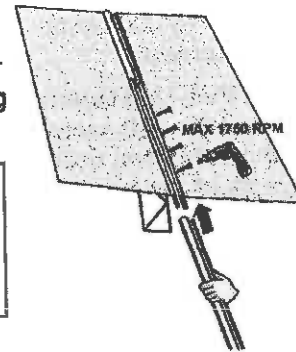
- B. Attach the stabilizer bracket using 1 1/4" [30mm] Tek 3 screws so that the cover fastening pipes will rest in the middle of the stabilizer bracket when the cover is tensioned.



- C. Re-tension the cover lashing winches

6. LOWER EXTRUSION INSTALLATION

After both covers are installed, install extrusion on the lower edge of the covers and secure to the common arches using #12-14 x 1 1/4" [#12-14 x 30mm] Tek 3 screws.



THE INSTALLER DETERMINES WHERE THE LOWER EXTRUSION TERMINATES - AVOID POINTS OR ANGLES THAT COULD DAMAGE THE FABRIC WHEN THE FABRIC IS TERMINATED.

7. TRUSS COVER INSTALLATION

- A - Install the truss covers

**8. 3 OR MORE COVERS
- INNER COVERS -**

A - Install extrusion on all Common arches.

B - Inner covers have a main cover part and a narrow connector part. Both parts have a keder end and a PVC pocket end and are laced together at the PVC connection.

Install the main cover part and the narrow connector part separately.

C - Assemble lengths of PVC pipe.

D - Install the PVC pipe in the PVC pockets of both the main cover part and the narrow connector part.

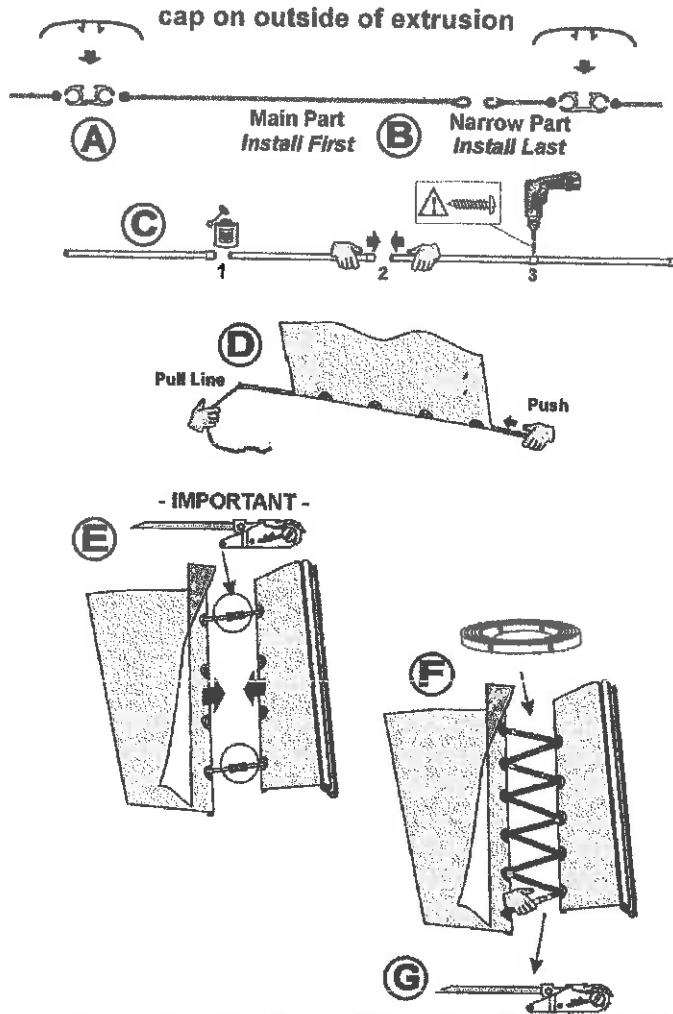
E - Attach ratchet straps to the PVC pipes every 10 -12 feet [3 - 4M] and apply tension.

F - Lace the PVC pipe together in 10 -12 feet [3 - 4M] sections using the 1" [25mm] belting. Always tie off the sections.

G - Remove the ratchet straps.

Finish the interior covers by following the directions Step 6 and Step 7 in this Appendix A.

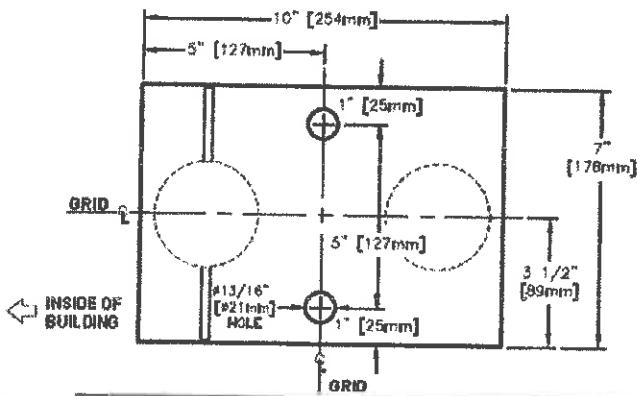
Use a rubber mallet to install snap



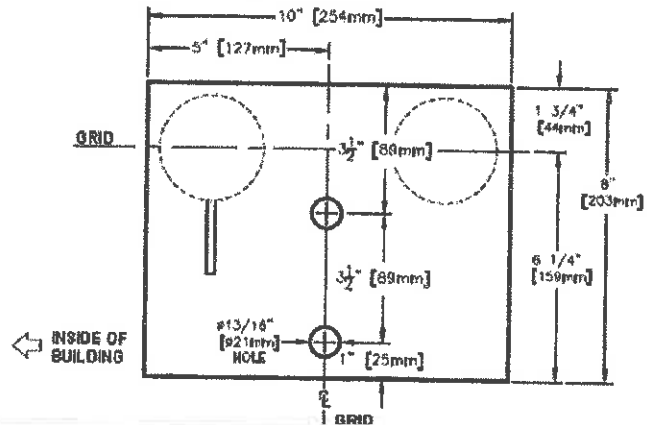
ANCHOR BOLT TEMPLATE

**IMPORTANT: ARCHES - MINIMUM Ø 3/4" [M20] ANCHOR BOLTS.
END FLAP WINCH and MOUNT - Ø 5/8" [M16] ANCHOR BOLTS.**

COMMON ARCH



END ARCH



APPENDIX B

FLAP OVERLAP CONNECTION

Multiple covers are provided for buildings over 144' [44M] in length.

This enables ease of on site handling and installation.

Normally covers are supplied in equal or near equal lengths.

The longest cover length is 144' [44M].

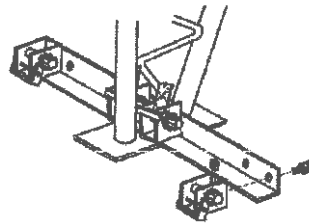
Eg. - a 150' [46M] building with 10' [3M] spacing is supplied with one 70' [21M] and one 80' [25M] cover.

1. SITE PREPARATION

- a. Arch spacing (running measurement) is the same for the entire length of the building. (the covers share a common arch). *Eg. - 150' [46M] building on 10' [3M] centers has 16 piles/posts on each side.*

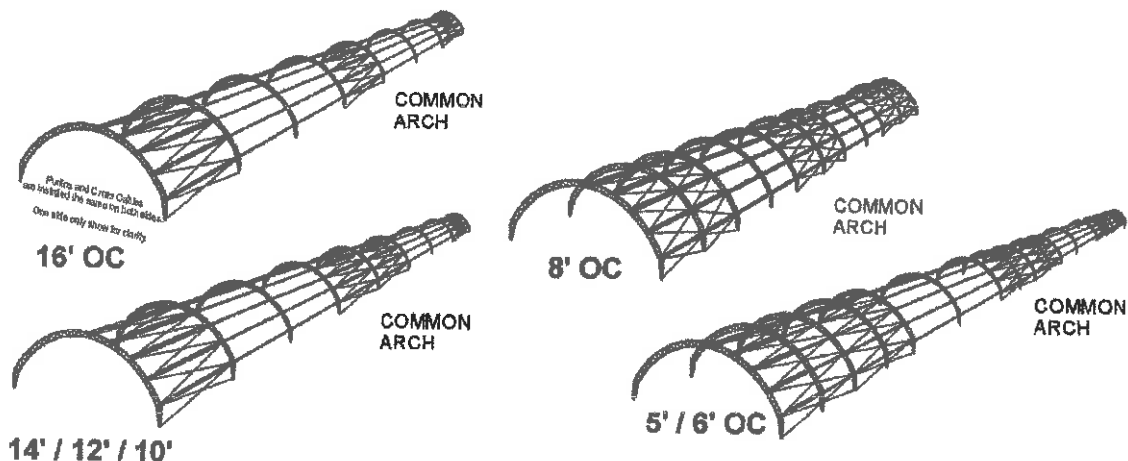
2. JOINER BRACKET

- a. Install a joiner bracket to the arch base using the anchor bolts. In addition to the 2 lashing winches mounted on the anchor bolts, add end flap lashing winches to each end of the bracket using 5/8" x 2" [M16 x 50mm] bolts and nuts.



3. CROSS CABLE INSTALLATION

- a. Buildings over 144' [44M] long require additional cross cables at the center of the building and some require additional end bay cabling.



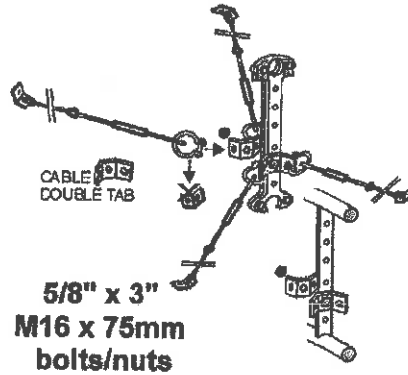
THE COMMON ARCH IS ALWAYS WHERE THE COVERS JOIN.

Tighten all bolts/nuts to assembly torque value- See Page 30

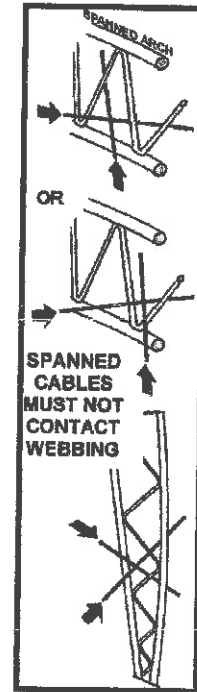
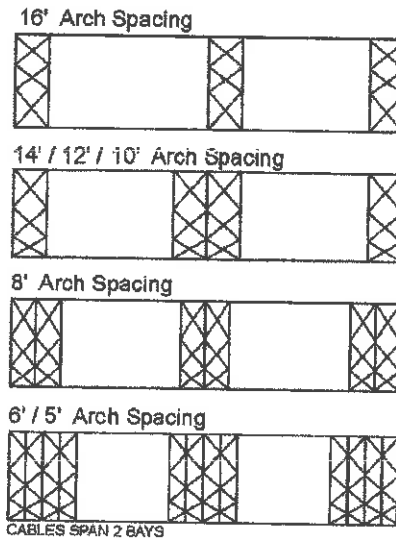
**STEP 17
FROM
PAGE 13**

DOUBLE TAB AND CROSS CABLE PLACEMENT

- b. Use double tabs where cables are installed in adjacent bays. Remove and discard the single tabs.



- c. Install cables as required by the building's arch spacing.



NOTE: 6' and 5' arch spacing - cables span 2 bays.

4. COVER INSTALLATION

IMPORTANT
The larger cover end flaps are the building ends. The smaller end flaps are where the building joins.



- a. Install the first cover as directed in STEPS 18-30 *except that* : the end flap on the common arch is *not* secured at this time, flip the end flap back and out of the way; the joiner bracket is installed under the lashing winch; and the end flap lashing winches are secured to the joiner bracket.
- b. Install the next cover in the same manner, *lacing the PVC tube to the common arch*. Do not tighten the cover or curtain lashing winches at this time.

Tighten all bolts/nuts to assembly torque value- See Page 30

- c. Release the fastening strap in the end arch winch of the first building. Join the fastening pipes of both covers and secure with Tek self-drilling bolts. Re-install the end fastening straps in the winches. Retighten the cover and curtain lashing winches and tighten all of the winches of the next cover.

Adjust the cover lashing winches to remove as many wrinkles and bagging as possible over the entire building. For most buildings 35 - 45 ft. lbs. [48 - 60N.m] of torque provides adequate cover tension and 25-35 ft. lbs. [34 - 48N.m] of torque provides adequate curtain tension

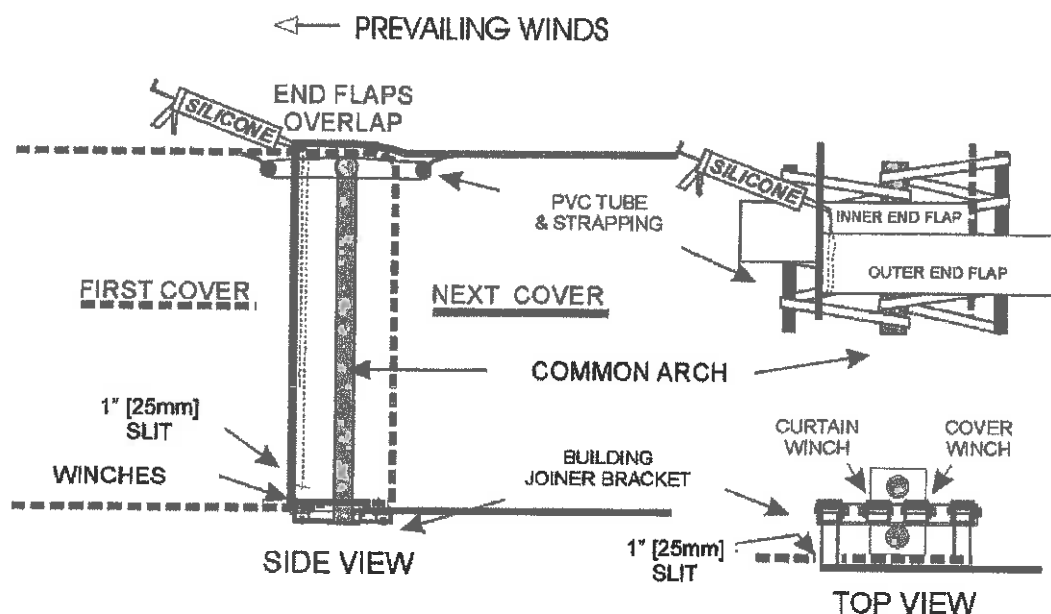
- d. Place the end flap of the first cover over the next cover's lacing. Attach the end flap cable for this first (inner) end flap to the lashing winches. Tension the lashing winches.

NOTE: If your building is subject to prevailing winds, you should secure the end flaps to protect the overlap.

- e. Place the end flap (outer) of the next cover over the first (inner) end flap. Cut a slit in the first (inner) end flap at the point where the end flap cable for the outer end flap exits its pocket. Feed the fastening cable through the slit and attach to the lashing winches. Tension the lashing winches.

It is best to have the end flap PVC cable casing passing through the fabric or against any part of the fabric rather than the end flap steel cable.

- f. Apply a bead of silicone (supplied) between the outer end flap and the cover. Insert the tube tip between the layers with all straps fastened securely. Walk on the building to seal the top portion of the end flap and use a ladder or lift equipment to reach the sides. Where it is difficult to reach some areas, unsealed portions should not exceed 3 feet [1 M].



SQUARING A BUILDING LAYOUT

IMPORTANT

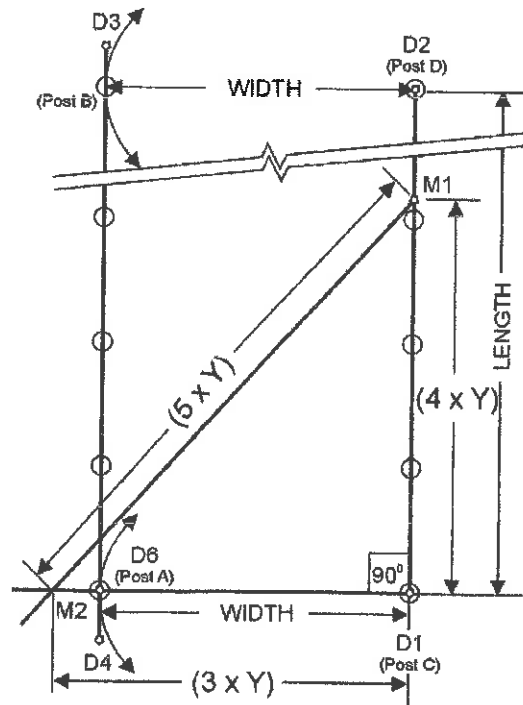
Depending on the size of your building, you may need a qualified contractor or surveyor to lay out the foundation of your building to ensure that it is straight and square. The following is a suggested method only.

1. Measure and string a straight line the exact length of the building (D1-D2).
2. Attach a measuring tape to stake D2 and measure the exact width of the building perpendicular to line D1-D2. Make an arc in the dirt at that exact measurement. Repeat this procedure at stake D1 and make a second arc.
3. String an extended line (D3-D4) at the crowns of these two arcs. Recheck width measurements.

USING THE 3-4-5 METHOD TO SQUARE THE BUILDING LAYOUT

4. With the measuring tape still attached to stake D1, measure the distance (4 x Y) from stake D1 towards stake D2 and place a stake (M1). See chart this page for a suggested value for Y for your building.
5. With the measuring tape still attached to stake D1, measure the distance (3 x Y) through the crown of the arc, and past line D3-D4, to M2.
6. With a second tape attached to stake M1, measure the distance (5 x Y) to M2.
7. Keeping the tapes tight, cross the two tapes at exactly the (3 x Y) measurement and the (5 x Y) measurement and hold in position. Place a stake (D6) exactly where line D1-M2 crosses line D3-D4. Remove stake M2.
8. Follow the linear and diagonal measurement checks beginning on Page 6 of this manual.

| SERIES/ SIZE | SUGGESTED Y VALUE |
|-----------------|----------------------|
| 65 | 23' [7.0M] |
| 70 | 25' [7.6M] |
| 72 | 25' [7.6M] |
| 82 | 30' [9.1M] |



Maintenance Recommendations For Buildings in Corrosive Environments

BUILDING STEEL

BRITESPAN manufactured steel components are hot dipped galvanized, hot zinc plated or coated with a high quality sealant.

It is recommended that the building owner/operator:

- Prevent corrosive material or product from resting against or covering the building steel.
- Remove any environmental residue that accumulates on the building steel.
- Seal all surface penetration marks with a high quality sealant or a high zinc content paint.

BUILDING HARDWARE

Hardware components are made of galvanized steel or aluminum alloy; are zinc plated with an added leachant-sealant; or are zinc or cadmium plated.

It is recommended that the building owner/operator:

- Prevent corrosive material or product from coming in direct contact with the building hardware.
- Remove any environmental residue that accumulates on the building hardware.
- Seal or protect from corrosion any non-building components that are connected to, or that come in contact with, the building hardware.

ANCHOR BOLTS *It is recommended that the building owner/operator:*

- Seal the exposed anchor bolt threads with a high quality sealant or a high zinc content paint.

FABRIC LASHING WINCHES *It is recommended that the building owner/operator:*

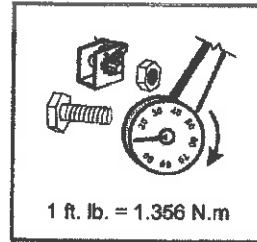
- Spray the lashing winches with a moisture displacing filming lubricant. (WD40 or equivalent)

FABRIC *It is recommended that the building owner/operator:*

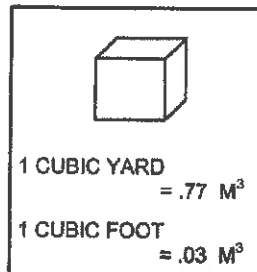
- Prevent corrosive material or product from resting against or covering the building fabric.
- Remove any environmental residue that accumulates on the building fabric. Where moisture will not contribute to corrosion – wash with water and non-abrasive soap.

CONVERSIONS

| INCHES | | MILLIMETERS | |
|--------|-------|-------------|------|
| 1/32" | | | |
| 2/32 | 1/16" | | 1.6 |
| 3/32 | | | |
| 4/32 | 2/16 | 1/8" | 3.2 |
| 5/32 | | | |
| 6/32 | 3/16" | | 4.8 |
| 7/32 | | | |
| 8/32 | 4/16 | 2/8 | 1/4" |
| | 5/16 | | 6.4 |
| | 6/16 | 3/8" | 9.5 |
| | 7/16 | | |
| | 8/16 | 4/8 | 2/4 |
| | 9/16 | | 12.7 |
| | 10/16 | 5/8" | 15.9 |
| | 11/16 | | |
| | 12/16 | 6/8 | 3/4" |
| | 13/16 | | 19.0 |
| | 14/16 | 7/8" | 22.2 |
| | 15/16 | | |
| | 16/16 | 8/8 | 4/4 |
| | | 2/2 | 1" |
| | | | 25.4 |



| FEET | METERS |
|------|--------|
| 1' | .305 |
| 2 | .610 |
| 3 | .914 |
| 4 | 1.219 |
| 5 | 1.524 |
| 6 | 1.829 |
| 7 | 2.134 |
| 8 | 2.438 |
| 9 | 2.743 |
| 10 | 3.048 |
| 25 | 7.620 |
| 30 | 9.144 |
| 35 | 10.668 |
| 40 | 12.192 |
| 45 | 13.716 |
| 50 | 15.240 |
| 60 | 18.288 |
| 70 | 21.336 |
| 80 | 24.384 |
| 90 | 27.432 |
| 100' | 30.480 |



TORQUE VALUES

| Ø SIZE INCH/mm | THREADS per INCH/25mm | SUGGESTED ASSEMBLY TORQUE VALUES FOR STRUCTURAL BOLTS | | | | |
|-------------------|--------------------------|---|------|----------------|------|--|
| | | GRADE 5 ft - lbs | | GRADE 5 N.m | | |
| | | DRY | WET* | DRY | WET* | |
| 3/8 | M10 | 30 | 23 | 40 | 30 | |
| 7/16 | M12 | 50 | 35 | 70 | 50 | |
| 1/2 | M12 | 75 | 55 | 100 | 75 | |
| 5/8 | M16 | 150 | 110 | 200 | 150 | |
| 3/4 | M20 | 260 | 200 | 353 | 270 | |
| 1 1/4 | M30 | 1120 | 840 | 1520 | 1140 | |
| #12 TEK 3 | | 7.7 | - | 10.5 | - | |
| #12 TEK 5 | | 12.5 | - | 17 | - | |

* Lubricant

BUILDING ENDWALLS

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

FABRIC END WALLS must be supported by a framework that is constructed to meet wind load ratings and building safety standards.

If you are constructing a framework for BRITESPAN supplied fabric end panels the framework MUST BE DESIGNED to match the fastening system of the fabric end panel and must be constructed to meet wind load ratings and building safety standards.

Failure to comply with the above can result in damage to the building and will void fabric end panel warranty.

Contact a structural engineer or your BRITESPAN representative for details.

SUSPENDING OBJECTS AND SERVICES IN BUILDING

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

RULE # 1

Always suspend weighted objects and services from the arches. Use dedicated brackets and hardware and attach to the lower truss cord only - do not use building brackets or hardware and never use the truss webbing as an attachment point. Wherever possible, use clamps to avoid drilling or piercing the lower truss cord. Any suspended objects must be approved by a licensed engineer. If this is not done it may void the building warranty.

RULE #2

Do not suspend weighted objects, services or building operation components from the purlins. The purlins act under compression when wind and snow loads affect the building. Added weight to a purlin can cause it to react unevenly and fail when wind and snow load forces are applied.

If suspensions mid-arch are necessary, use a separate purlin dedicated to the suspension. In some cases a tensioned cable in conjunction with the standard purlin can be used to offset the weight of the suspended object. Four inch (100mm) diameter purlins are capable of supporting weighted objects and services and in some cases can be substituted for standard purlins.

Exceptions for suspensions from purlins can include:

- > Lightweight aluminum and plastic roof vents
- > Simple lighting services without ballasts or transformers
- > Electrical conduit and wiring
- > Control cables

IMPORTANT- always use clamps or ties - DO NOT drill or pierce purlins

Contact a structural engineer or your BRITESPAN representative for assistance.

FOR TECHNICAL ASSISTANCE CALL YOUR LOCAL DEALER OR SALES REPRESENTATIVE OR 1-800-407-5846



37651 Amberley Road
Lucknow, Ontario Canada N0G 2H0
www.britespanbuildings.com



ONLINE WARRANTY REGISTRATION

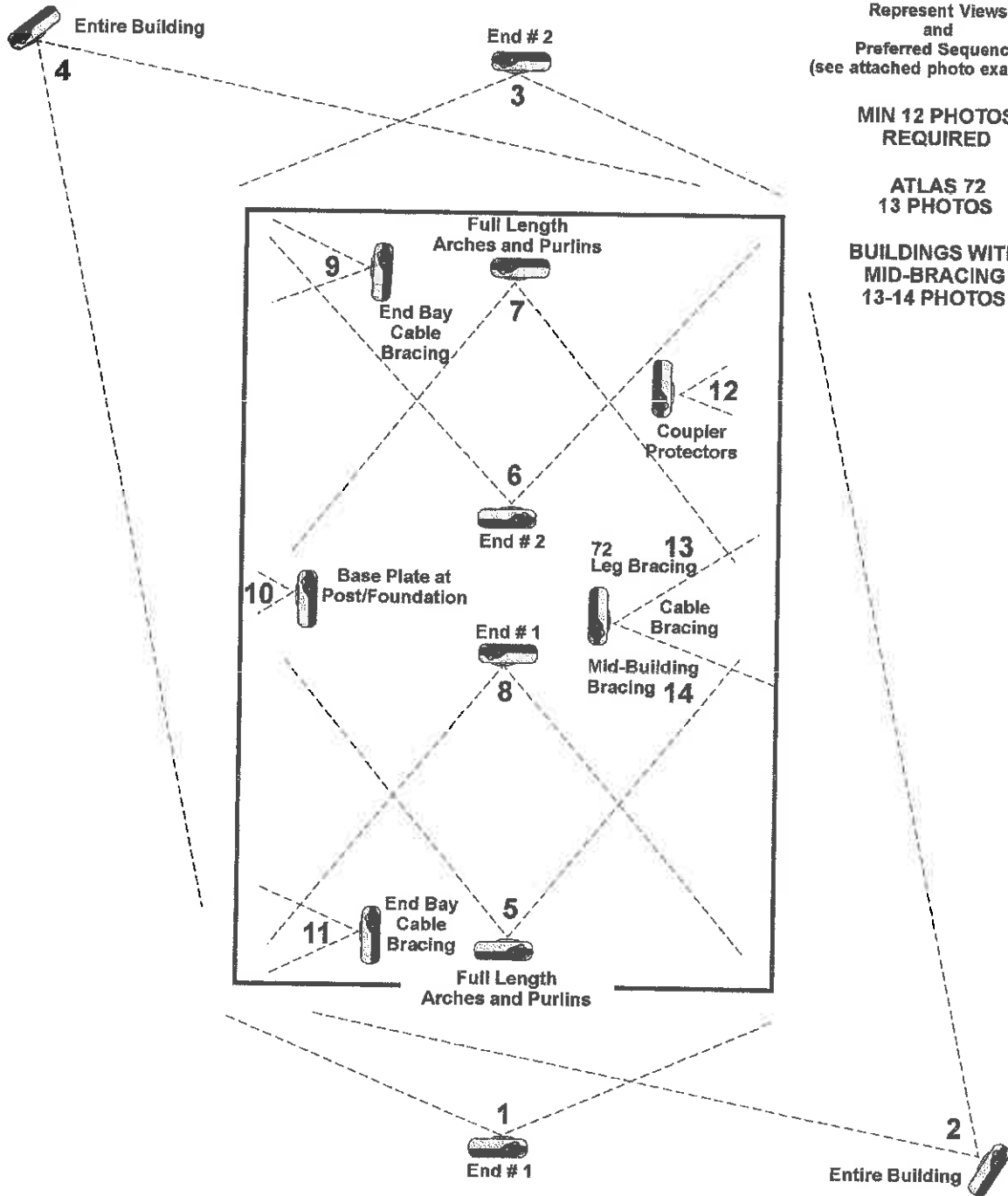
Please go to www.britespanbuildings.com and select warranty tab. Complete all registration information boxes (similar to form below). Attach all photos requested and submit. Please ensure photos are clear and are in the view and sequence shown in the attached examples.

| | | | | | | | | | | | | | |
|---|--------------------------|-----------------------------------|--|--------------------------------|------------|-------|--|----------------|------------------|-------|--------------------------------|--|--|
| 1. | Owner Name | | | Business / Company Name | | | | | | | | | |
| 2. | Mailing Address | | | Agent / Representative | | Title | | | | | | | |
| 3. | City / Town | | 4. Prov/State | 5. Phone | 6. Website | | | | | | | | |
| 7. () | Home Phone | | 8. () | 9. Postal Code | Country | | | | | | | | |
| 10. The Building Address is the same as above <input type="checkbox"/> | | | If not, provide the building address | | | | | | | | | | |
| 11. x | 12. # of Enclosed Ends | | 13. Size of Door / Openings | | | | | | | | | | |
| 14. SO# | | | 15. Date Warranty Registration Submitted | | | | | | | | | | |
| 16. Date of Purchase | | 17. Name of Dealer Purchased from | | 18. Dealer Invoice Number | | | | | | | | | |
| 19. Building Application: | | | Primary Use: | | | | | | | | | | |
| Industry | | | | | | | | | | | | | |
| <table border="0"> <tr> <td></td> <td style="text-align: center;">Self-Installed</td> <td style="text-align: center;">Dealer Installed</td> <td style="text-align: center;">Other</td> <td colspan="3" style="text-align: center;">Name of Contractor is required</td> </tr> </table> | | | | | | | | Self-Installed | Dealer Installed | Other | Name of Contractor is required | | |
| | Self-Installed | Dealer Installed | Other | Name of Contractor is required | | | | | | | | | |
| 20. The Building foundation was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | | | | | | | | |
| 21. The Building steel was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | | | | | | | | |
| 22. The Building cover was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | | | | | | | | |
| 23. The end frame(s) were | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | | | | | | | | |
| 24. The end(s) fabric were | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | | | | | | | | | |
| <table border="0"> <tr> <td></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> <td colspan="4"></td> </tr> </table> | | | | | | | | Yes | No | | | | |
| | Yes | No | | | | | | | | | | | |
| 25. Did you receive the Steel and Fabric and Warranty? <input type="checkbox"/> <input type="checkbox"/> | | | | | | | | | | | | | |
| 26. Did you receive Building Maintenance information located in owner/installation manual? <input type="checkbox"/> <input type="checkbox"/> | | | | | | | | | | | | | |
| 27. Did you ask the installer or Dealer for instructions on how to perform Building Maintenance procedures? <input type="checkbox"/> <input type="checkbox"/> | | | | | | | | | | | | | |
| Comments | | | | | | | | | | | | | |
| _____ | | | | | | | | | | | | | |
| _____ | | | | | | | | | | | | | |

Allow 90 days from date of registration submitted for Processing and Warranty Evaluation of photos. If you are not emailed a Warranty Certificate within this time frame please contact you BRITESPAN Representative. Use the building SO# as your trace number. Note: Warranty only valid with warranty registration and required photos. See attached for photo instructions.



BRITESPAN Warranty Photo Registration



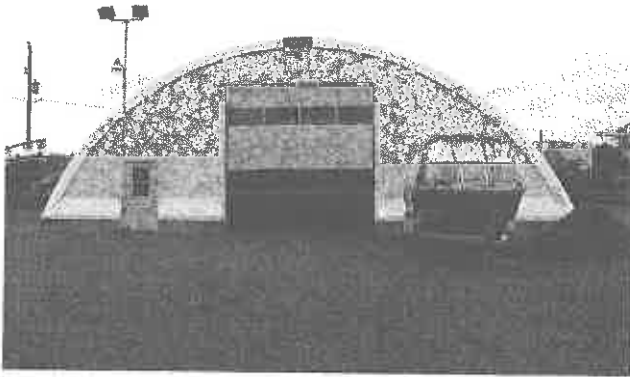
NUMBERS
 Represent Views
 and
 Preferred Sequence
 (see attached photo examples)

**MIN 12 PHOTOS
 REQUIRED**

**ATLAS 72
 13 PHOTOS**

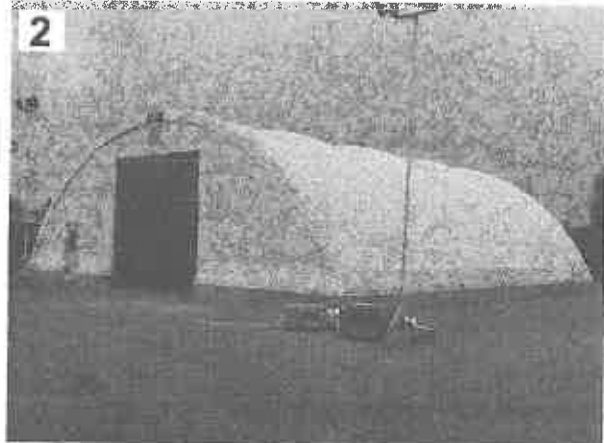
**BUILDINGS WITH
 MID-BRACING
 13-14 PHOTOS**

1

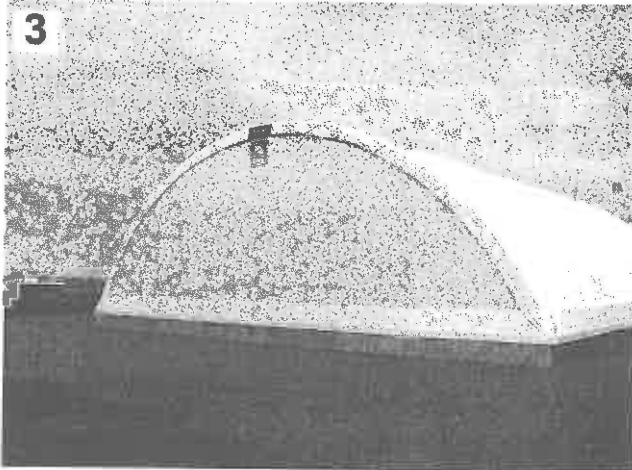


REQUIRED VIEWS

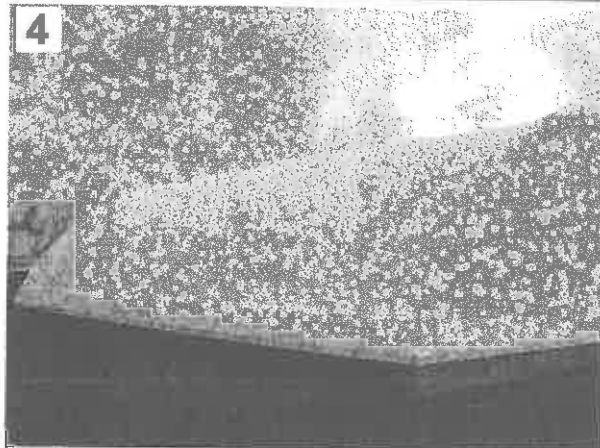
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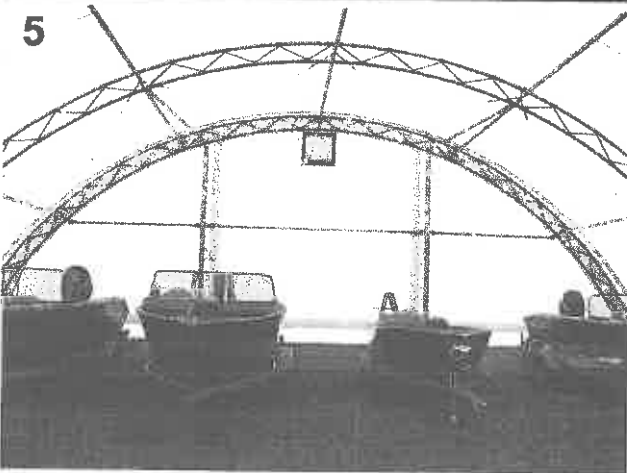
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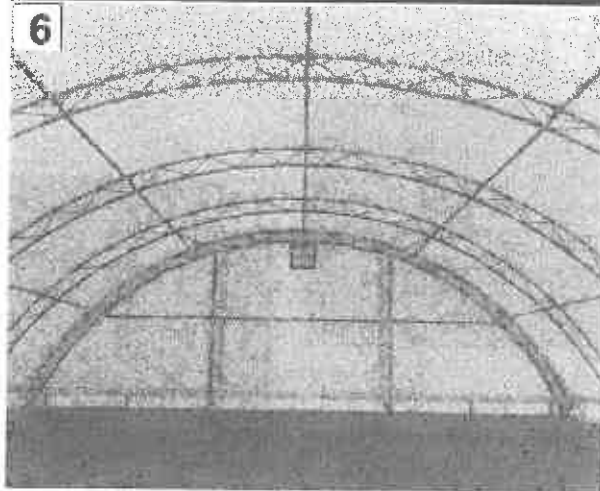
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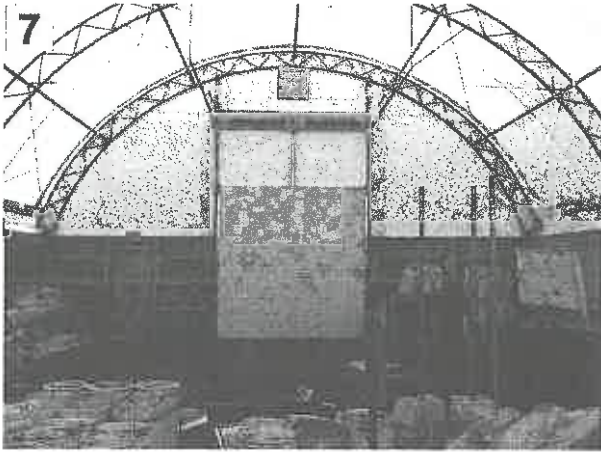


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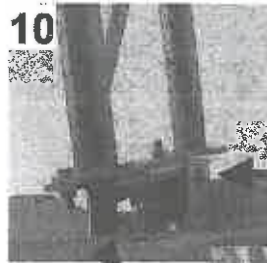
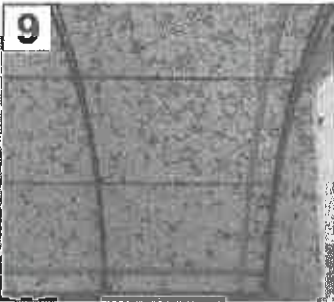
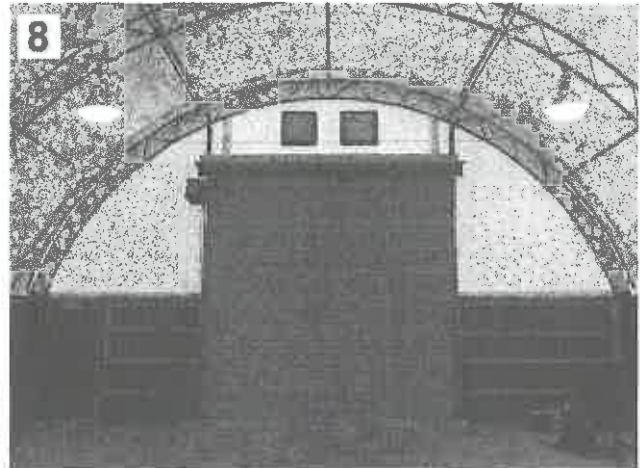


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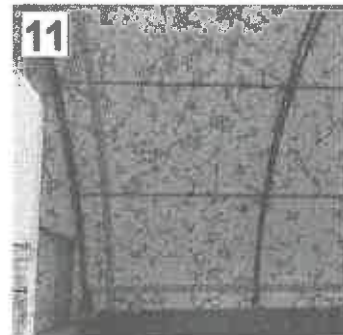
REQUIRED VIEWS



Must See Swivel Bolt Washer

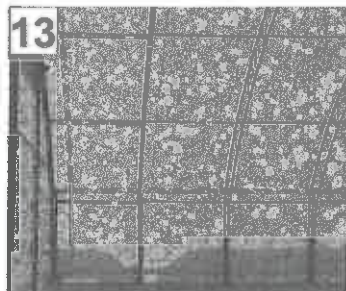
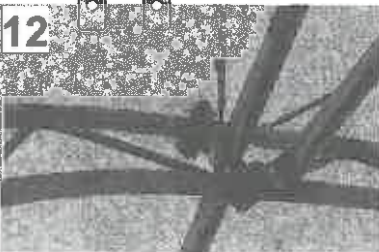
Must See 2 Anchor Bolts

Must See 2 Threaded Rods



65 and 72

Coupler Protectors



65 and 72 Building Leg Bracing



Mid-Building Bracing



LIMITED WARRANTY

SCOPE OF LIMITED WARRANTY

Only the building components manufactured by BRITESPAN Building Systems Inc. and described in this agreement are warranted for manufacturer defects to the building owner.

This warranty is only valid if and when:

- i) Warranty has properly been registered by an authorized BRITESPAN Building Systems Inc. dealer as per the instruction in the building kit and,
- ii) BRITESPAN Building Systems Inc. receives written notice and proof of claim (photos where possible) of any manufacturers defects during the period of warranty coverage.

Resolve of the structural defect(s) may be through the supply of new, used or rebuilt parts, or on-site repair, at the option of BRITESPAN Building Systems Inc. If BRITESPAN Building Systems Inc. chooses to repair or replace the defective product or component, BRITESPAN Building Systems Inc. shall be allotted reasonable time to do so.

This warranty includes the explicit warranty of BRITESPAN Building Systems Inc. There are no other warranties expressed or implied. This warranty is made and is not to be replaced by any warranties of marketability or suitability for a particular purpose. Warranty specifications are applicable to units sold and erected in Canada and the United States only. Warranty may vary outside of those areas. Please contact your local authorized BRITESPAN Building Systems Inc. representative for more details.

WARRANTY REGISTRATION

Follow all of the instructions for the online warranty registration found in this manual and at www.britespanbuildings.com. All warranty registrations must be submitted for registration review within 60 days of building installation. A certificate of warranty will be issued to your local authorized BRITESPAN Building Systems Inc. representative once all of the requirements have been met for registration and approved by BRITESPAN Building Systems Inc.

A warranty certificate may be withheld if the building or any components are not assembled in accordance with the installation procedures indicated in the installation manual. A warranty certificate will be issued upon correction of identified deficiencies supported with new photographs to complete the verification.

If the building changes ownership, the new owner must apply for a warranty transfer to assume remaining years of warranty on the existing structure(s). Contact your local authorized BRITESPAN Building Systems Inc. dealer to obtain a transfer of warranty package. A one-time per transfer fee may apply.

STANDARD LIMITED WARRANTY COVERAGE PERIODS:

| TABLE 3.1: STANDARD PRO-RATED WARRANTY COVERAGE PERIOD (YEARS) | |
|---|--------------------------|
| COMPONENT | ATLAS18 / ATLAS24 |
| MAIN STRUCTURE COVER (NON-FR) ⁽⁴⁾ | 16 |
| MAIN STRUCTURE COVER (FR) ⁽⁴⁾ | 10 |
| END FABRIC (NON-FR) ⁽⁵⁾ | 3 |
| END FABRIC (FR) ⁽⁵⁾ | 3 |
| MAIN STEEL FRAMEWORK ⁽²⁾ | 5 |
| END STEEL FRAMEWORK (HSS) ⁽³⁾ | 5 |

* Building needs to be installed by factory trained, approved and qualified personnel.

NOTES ON LIMITED WARRANTY COVERAGE PERIODS

- All repair or replacement costs are pro-rated as per table 3-1 on page one of this document. (1)
- Consists of main building trusses, purlins and manufactured brackets (2)
- Consists of vertical columns, horizontal members, and manufactured brackets. Does not include cables or fasteners. (3)
- Consists of main building cover panels only. Does not include any fastening system components (4)
- Consists of end enclosure panels only (standard FR & non-FR fabrics only). Does not include any fastening system components. End enclosure panels must be properly supported by a BRITESPAN Building Systems Inc. end support system or an alternative system designed and engineered to match the end panel fastening system. The alternative system must also meet site wind load and building safety requirements as per engineer requirements. (5)

STANDARD TERMS OF LIMITED WARRANTY COVERAGE

Should any components be found to have manufacturer's defects under normal use, the defect (s) will be repaired or the components replaced, at the discretion of BRITESPAN Building Systems Inc. The building owner will be responsible for the cost of the repair or replacement parts pro-rated per year following the original purchase date, plus the cost of delivery and installation of replacement parts, if required. All replacement parts are F.O.B. Lucknow, Ontario, Canada. Any parts requiring replacement under this warranty are subsequently warranted only for the remaining time period of the unexpired portion of the warranty that is applicable to the original product.

Due to continual product development, over time certain fabric colours or steel components may become unavailable. In those incidents, BRITESPAN Building Systems Inc. reserves the right to substitute replacement components with those that are comparable in function, quality, and price to the original. BRITESPAN Building Systems Inc. is not responsible nor liable if the replacement component varies in appearance from the original.

LIMITS AND RELEASE OF LIABILITY

This warranty does not apply to defects or damages resulting from a) improper installation and /or installation that is not in accordance with BRITESPAN Building Systems Inc. installation manuals and procedures; b) improper or inadequate maintenance of the structure; c) any modification or alteration of the product; d) misuse, neglect, or abuse of the product; e) accident; f) repair or alteration by an unauthorized BRITESPAN Building Systems Inc. dealer; g) integration of products or accessories not manufactured specifically for use in a BRITESPAN Building Systems Inc.; h) exposure to corrosive elements; i) corrosion resulting from structure applications, environment within the structure, and/or insufficient maintenance or any cause other than a defect in an item's described corrosion protection; j) use of abrasive cleaning methods, chemicals, or solvents; k) exposure to conditions in excess of, or not meeting, as the case may be, wind and snow load specifications for building model; l) design of foundation and/or installation and/or deficiency in the foundation; m) product upgrades; n) product recall; o) normal wear and tear; p) wear caused by multiple installations; q) storage and/or handling of building components; r) an act of God; s) This warranty does not apply to cosmetic defects or deterioration, including discoloration.

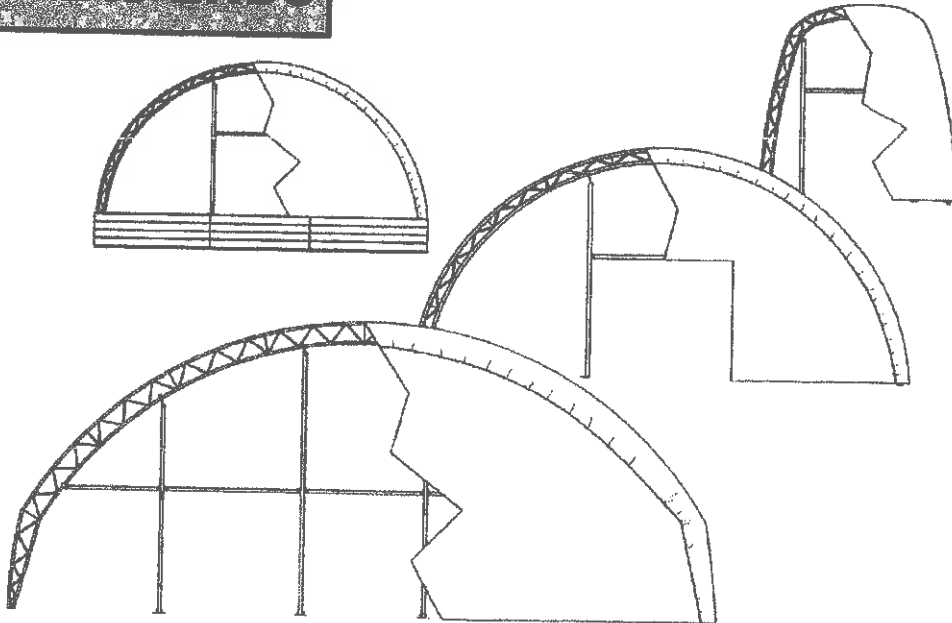
BRITESPAN Building Systems Inc. will not be liable for any damages incurred during or as a result of installation of a BRITESPAN Building Systems Inc. product, whether or not in accordance with the installation instructions. In no event will BRITESPAN Building Systems Inc., any distributor, or the selling dealer be liable for any direct, indirect, special, incidental, or consequential damages (including loss of profit, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if BRITESPAN Building Systems Inc., its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. By registering for and taking benefit of the warranty, the building owner expressly releases and discharges BRITESPAN Building Systems Inc., all distributors, and all dealers from all claims, causes of action, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the building owner ever had, now has, or may have by reason of the assembly, erection, use and/or operation of any BRITESPAN Building Systems Inc. All references to building owners, BRITESPAN Building Systems Inc., all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

BRITESPAN Building Systems Inc. and its authorized dealers are independent businesses; authorized dealers are not agents or legal representatives of BRITESPAN Building Systems Inc. Authorized dealers have no right or authority to assume or create any legal obligation or responsibility, express or implied, on behalf of BRITESPAN Building Systems Inc., or to bind BRITESPAN Building Systems Inc. in any manner whatsoever. BRITESPAN Building Systems Inc. shall have no liability for any acts, errors, omissions, workmanship, supplies, advice, representations or misrepresentations of any authorized dealer.



ATLAS BUILDING SERIES
Owner / Installation Manual
Includes Warranty & Registration

ATLAS ENDS



LIMITED WARRANTY

See the Standard Limited Warranty Coverage
on Pages 33 and 34 for further details

INCLUDES **FRAMEWORK
PANEL**

End Components

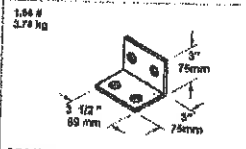
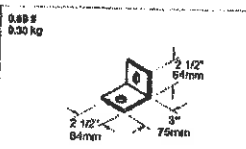
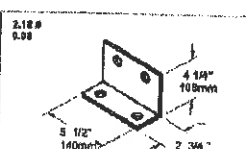
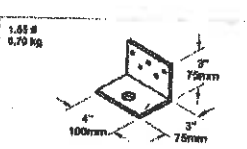
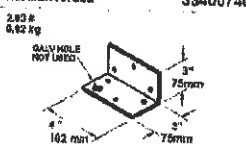

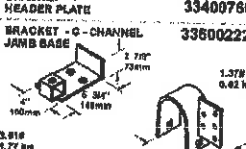
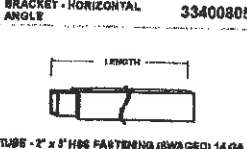
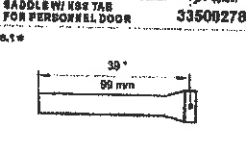
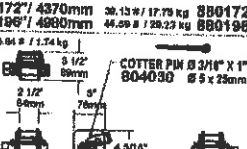
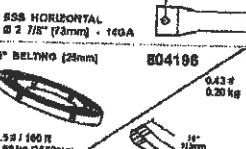
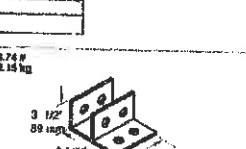
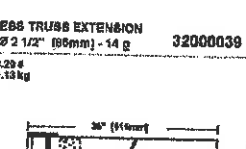
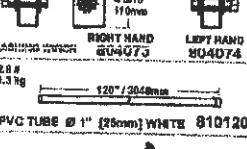
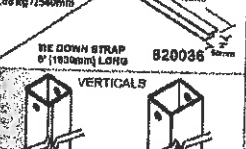
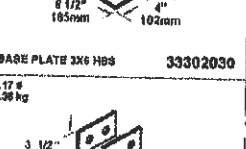
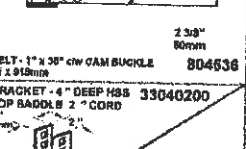
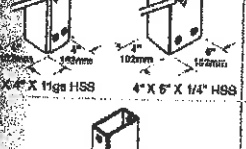

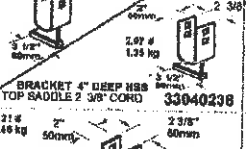

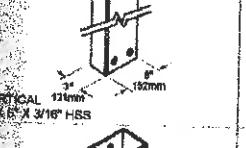
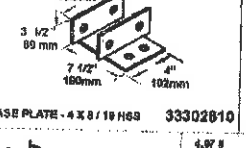
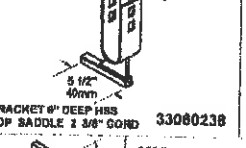
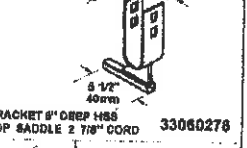
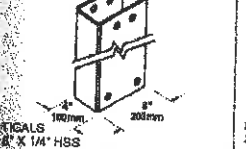
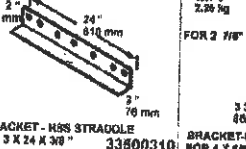
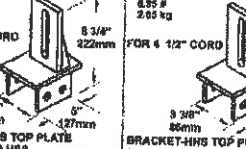
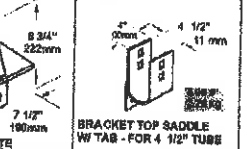
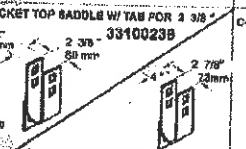
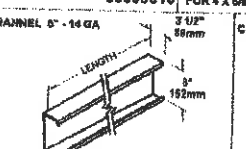
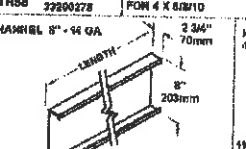
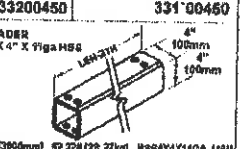
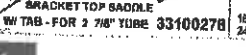
|  <p>BRACKET - 4" X 4" HEADER ANGLE 33400740</p> <p>1.54 # 0.79 kg</p> |  <p>BRACKET - WHICH MOUNT 2 1/2" X 3" X 2 1/2" X 3/8"</p> <p>33400190</p> <p>0.85 # 0.30 kg</p> |  <p>BRACKET - 6" HEADER PLATE 33400760</p> <p>2.12 # 0.98</p> |  <p>BRACKET - HORIZONTAL ANGLE 33400805</p> <p>1.51 # 0.79 kg</p> | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|------------|----------|--------------|--|----------|---------------|--|----------|---------------|--|----------|---------------|--|----------|---------------|--|----------|---------------|--|---|--|
|  <p>BRACKET - C-CHANNEL HEADER ANGLE 33400803</p> <p>2.83 # 0.62 kg</p> |  <p>BRACKET - HORIZONTAL SADDLE W/ TAB FOR 2 3/8" TUBE 33400200 FOR 2 7/8" TUBE 33400238 FOR 4 1/2" TUBE 33400460</p> <p>1.28 # 0.68 kg</p> |  <p>BRACKET - G-CHANNEL JAMB BASE 33800222</p> <p>3.91 # 1.77 kg</p> |  <p>TUBE - 2" X 3" HSS FASTENING (SWAGED) 14 GA 172" / 4370mm 30.13 # / 17.79 kg 880172 196" / 4980mm 44.59 # / 25.23 kg 880196</p> | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>ITEM</th> <th>LENGTH /mm</th> <th>WEIGHT /kg</th> </tr> </thead> <tbody> <tr> <td>32000097</td> <td>97" / 2460mm</td> <td></td> </tr> <tr> <td>32000132</td> <td>122" / 3100mm</td> <td></td> </tr> <tr> <td>32000148</td> <td>148" / 3750mm</td> <td></td> </tr> <tr> <td>32000170</td> <td>170" / 4320mm</td> <td></td> </tr> <tr> <td>32000194</td> <td>194" / 4930mm</td> <td></td> </tr> <tr> <td>32002218</td> <td>218" / 5540mm</td> <td></td> </tr> </tbody> </table> | | ITEM | LENGTH /mm | WEIGHT /kg | 32000097 | 97" / 2460mm | | 32000132 | 122" / 3100mm | | 32000148 | 148" / 3750mm | | 32000170 | 170" / 4320mm | | 32000194 | 194" / 4930mm | | 32002218 | 218" / 5540mm | |  <p>SADDLE W/ HSS TAB FOR PERSONNEL DOOR 33500278</p> <p>0.1 #</p> |  <p>CUTTER PIN 3/8" X 1" 804030 5/16" X 25mm</p> |
| ITEM | LENGTH /mm | WEIGHT /kg | | | | | | | | | | | | | | | | | | | | | | |
| 32000097 | 97" / 2460mm | | | | | | | | | | | | | | | | | | | | | | | |
| 32000132 | 122" / 3100mm | | | | | | | | | | | | | | | | | | | | | | | |
| 32000148 | 148" / 3750mm | | | | | | | | | | | | | | | | | | | | | | | |
| 32000170 | 170" / 4320mm | | | | | | | | | | | | | | | | | | | | | | | |
| 32000194 | 194" / 4930mm | | | | | | | | | | | | | | | | | | | | | | | |
| 32002218 | 218" / 5540mm | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>SSB HORIZONTAL 2 7/8" (76mm) - 16GA 804196</p> <p>1.59 / 0.69 # 0.88 kg / 2560mm</p> |  <p>E88 TRUSS EXTENSION 2 1/2" (65mm) - 14 g 32000039</p> <p>0.28 # 0.13 kg</p> |  <p>LAB 1130 SWITCH RIGHT HAND 804073 LEFT HAND 804074</p> |  <p>PVC TUBE 1" (25mm) WHITE 810120</p> <p>2.8 # 1.3 kg</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>DOWN STRAP 1" (25mm) LONG 820036</p> <p>0.43 # 0.20 kg</p> |  <p>BASE PLATE 3X6 HSS 33302030</p> <p>4.74 # 2.14 kg</p> |  <p>BELT - 1" X 30" CW CAM BUCKLE 804636</p> <p>2.38 # 1.08 kg</p> | <p>Hardware - Page 30</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>VERTICALS 4" X 1 1/2" HSS 4" X 6" X 1/4" HSS</p> |  <p>BASE PLATE 4 X 4 HSS 33302046</p> <p>4.17 # 2.36 kg</p> |  <p>BRACKET 4" DEEP HSS TOP SADDLE 2 3/8" CORD 33040200</p> <p>2.38 # 1.08 kg</p> |  <p>BRACKET 4" DEEP HSS TOP SADDLE 2 3/8" CORD 33040238</p> <p>2.38 # 1.08 kg</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>VERTICAL 13mm 4" X 3/16" HSS</p> |  <p>BASE PLATE 4 X 8 / 10 HSS 33302010</p> <p>4.17 # 2.36 kg</p> |  <p>BRACKET 6" DEEP HSS TOP SADDLE 2 3/8" CORD 33080238</p> <p>3.21 # 1.46 kg</p> |  <p>BRACKET 6" DEEP HSS TOP SADDLE 2 7/8" CORD 33060278</p> <p>6.23 # 2.87 kg</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>VERTICALS 1/2\" X 1 1/4\" HSS</p> |  <p>BRACKET - HSS STRADDLE 2 X 3 X 24 X 3/8" 33600310</p> <p>4.97 # 2.29 kg</p> |  <p>BRACKET - HSS TOP PLATE FOR 4 X 6 HSS 22200278</p> <p>8.95 # 4.05 kg</p> |  <p>BRACKET TOP SADDLE W/ TAB - FOR 4 1/2" TUBE 33100460</p> <p>4.12 # 1.88 kg</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>BRACKET TOP SADDLE W/ TAB FOR 2 3/8" 33100238</p> <p>2.87 # 1.31 kg</p> |  <p>C-CHANNEL 6" - 14 GA 3 1/2" 89mm</p> |  <p>C-CHANNEL 6" - 14 GA 2 3/4" 70mm</p> |  <p>HEADER 4" X 4" X 1/4" HSS 100mm</p> | | | | | | | | | | | | | | | | | | | | | |
|  <p>BRACKET TOP SADDLE W/ TAB - FOR 2 7/8" TUBE 33100278</p> | <p>180" (4570mm) 57.66 # 36080180 240" (6095mm) 76.90 # 36080240</p> | <p>180" (4570mm) 57.66 # 36080180 240" (6095mm) 76.90 # 36080240</p> | <p>118" (3000mm) 82.22 # (28.27 kg) 8884X4X10A-118H 162" (4115mm) 74.99 # (34.00 kg) 8884X4X10A-162H 186" (4700mm) 67.68 # (30.70 kg) 8884X4X110A-186H 180" (4570mm) 102.39 # (46.51 kg) 8884X4X110A-180H 214" (5430mm) 112.01 # (51.28 kg) 8884X4X110A-214H</p> | | | | | | | | | | | | | | | | | | | | | |



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IMPORTANT – READ MANUAL FIRST

Improper Site Preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

MAINTENANCE SCHEDULE

Failure to comply with this maintenance schedule will invalidate the warranty.

A. INSTALLATION ADJUSTMENT

1. The cover of your Atlas building may relax after installation. The fabric is designed to be under tension at all times to prevent wear and ensure a long life. Adjust the cover over the entire building to remove as many wrinkles and creases and bagging as possible. For most buildings 35 - 45 ft. lbs [48 - 60 N.m] of torque provides adequate cover tension. Adjust the end winches until the fastening pipe is level. Retighten end flaps.

NOTE: Building covers installed during cooler weather tend to relax more than covers installed during warmer weather. If your cover was installed in cooler weather recheck its tightness on the first available warm sunny day.

B. INSTALLATION INSPECTION - 1 WEEK MAINTENANCE

1. Cover - ensure the cover straps are secure and the cover is tensioned. For most buildings 35 - 45 ft. lbs [48 - 60N.m] of torque provides adequate cover tension. Adjust cover tension as required..
2. Belting - check for premature belting wear and ensure tightness.
3. End Flaps - ensure the flaps remain tight and securely fastened.
4. Aprons - ensure the aprons are securely fastened.
5. Cables - ensure the cables are tensioned according to the installation instructions.
6. Steel - Seal all surface penetration marks with a sealant or high zinc content paint.

C. QUARTERLY MAINTENANCE

1. Repeat above "INSTALLATION INSPECTION - 1 WEEK" a minimum of 4 times per year.

D. GENERAL MAINTENANCE

1. **Cover** - Clean with water and non-abrasive soap. Do not use solvents or chemicals. Use caution when using high pressure washers.
2. **Snowfall** - Snow accumulating on the cover could indicate that the cover needs re-tensioning. Remove snow and check tension.
3. Use caution when using heavy equipment or manually clearing away avalanched snow.

E. ACCIDENTAL DAMAGE

Cover: Sharp objects can puncture and damage the cover. Do not attempt to seal or repair with conventional materials. Call your local BRITESPAN representative. They will be able to assess the damage and facilitate replacement or provide a heat-weld service if the cover is repairable.

Structure: Report and document any damage to the steel structure, components or foundation immediately. Have your local BRITESPAN representative inspect the damage and provide a comprehensive evaluation. Perform any temporary or emergency repairs as determined. Replace or repair damaged components as determined.

IMPORTANT

BRITESPAN IS NOT RESPONSIBLE FOR ANY DAMAGES WHICH MAY OCCUR DURING INSTALLATION

IMPORTANT: The end wall illustrations in this manual are for Standard Type End Enclosures. Refer to the engineered drawings that are supplied with the end for full details.

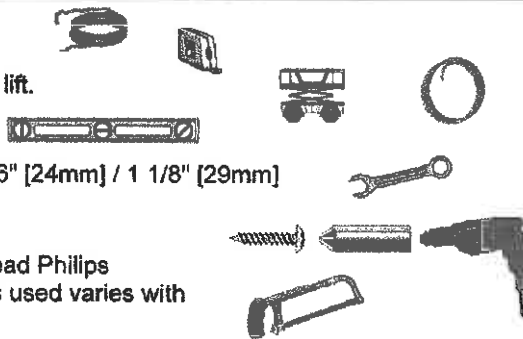
Foundation requirements are the responsibility of the individual owner/installer. Consult a qualified engineer in your area. BRITESPAN is not responsible for foundation design.

If you have any questions contact your local dealer.

STEP 1

REQUIRED EQUIPMENT

1. Alignment string or device.
2. Measuring tape.
3. Movable scaffolding or a platform lift.
6. Square level.
7. Pull ropes
8. 11/16" [18mm] / 3/4" [20mm] / 5/16" [24mm] / 1 1/8" [29mm] wrenches and sockets.
9. Power Drill
10. #10 x 3/4" [#10 x 20mm] round head Philips screws and bit. Number of screws used varies with the size of building.
11. Hacksaw



STEP 2

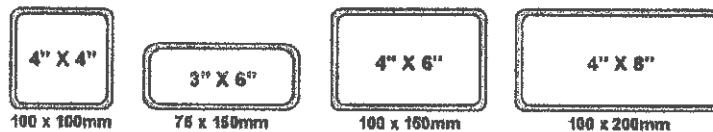
DETERMINE SIZE OF VERTICALS AND HEADERS

IMPORTANT

More than one size of vertical can be used in the end.

CHECK THE DRAWINGS THAT ARE SUPPLIED WITH THE END FOR THE SIZE AND PLACEMENT OF VERTICALS.

VERTICALS - HSS



DOOR HEADERS



STEP 3

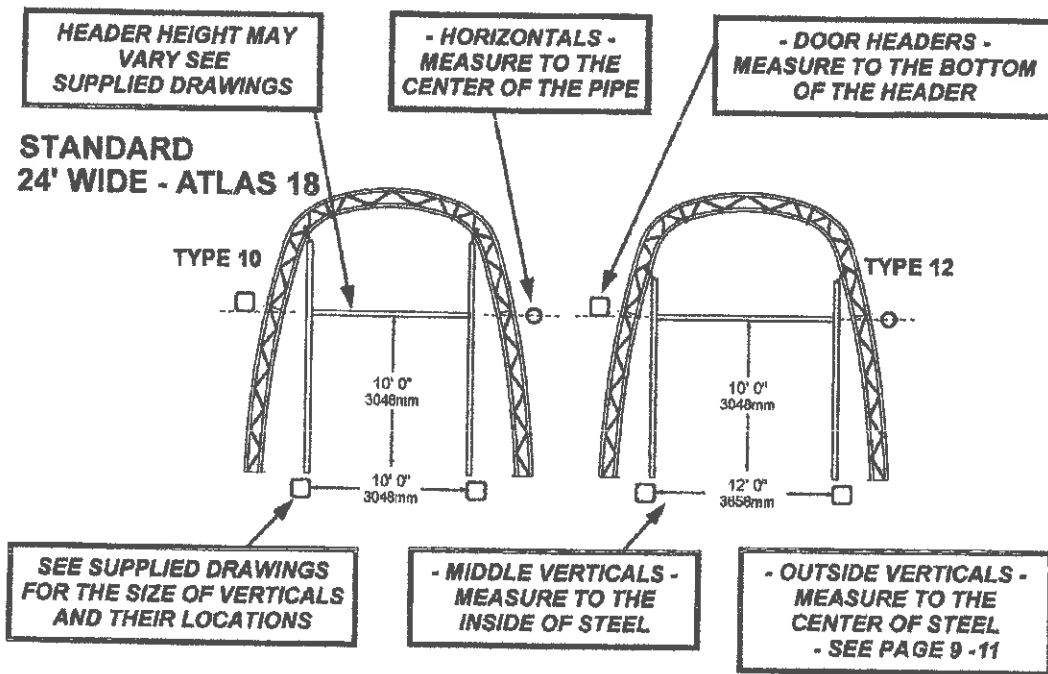
DETERMINE END WALL TYPE

The following illustrations depict Standard End Wall Types.
Check the drawings that are supplied with the end for details.

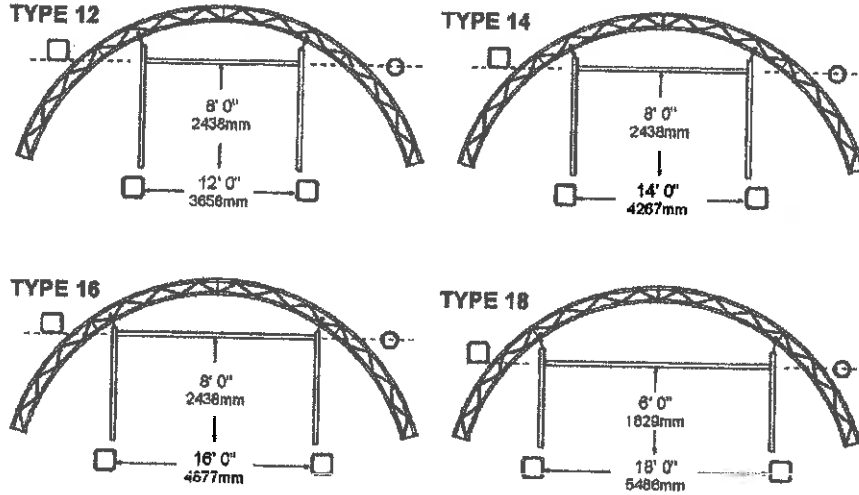
Custom Designed and Non-Standard Ends

USE THE INSTALLATION DIMENSIONS IN THE DRAWINGS THAT COME WITH
THE END IN YOUR BUILDING KIT.

This manual is for general assembly and installation procedures only.

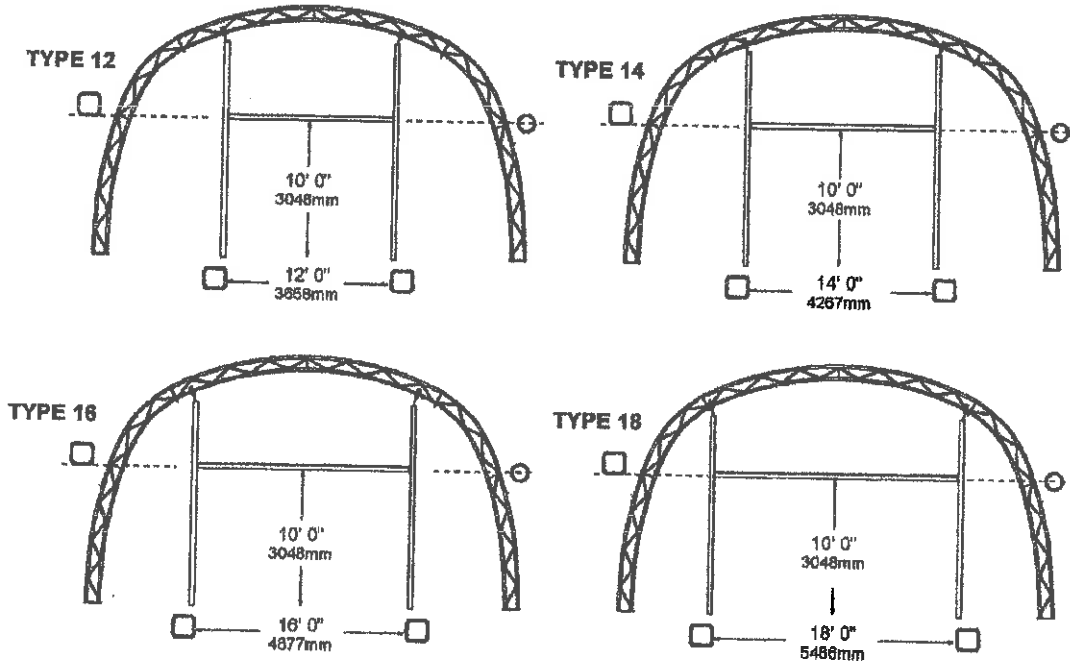


STANDARD 30' WIDE - ATLAS 18

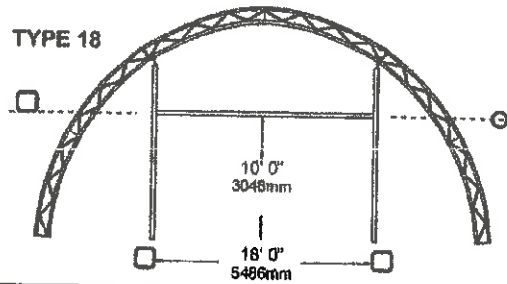
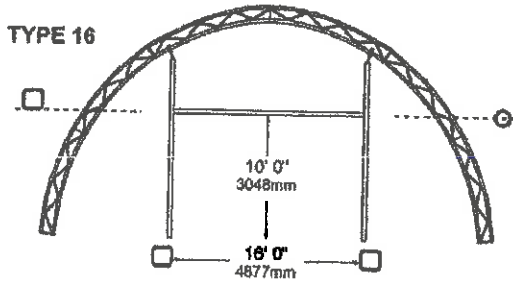
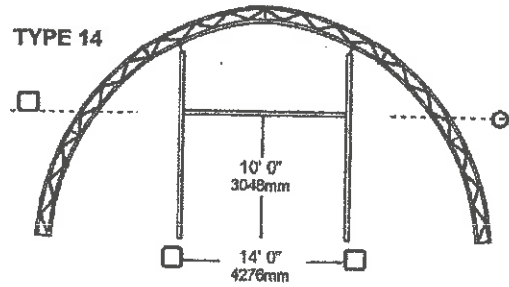
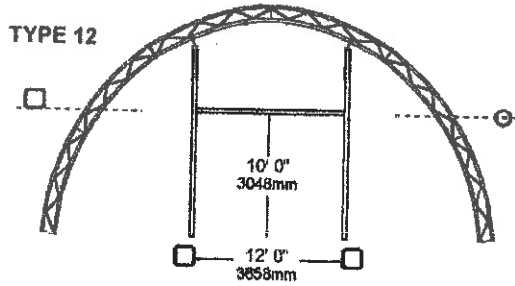


**ALWAYS SEE SUPPLIED
 DRAWINGS IN BUILDING KIT
 FOR SIZE OF VERTICALS AND
 LOCATION CONFIRMATION**

STANDARD 32' WIDE - ATLAS 18

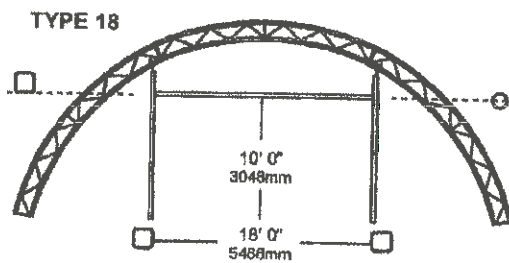
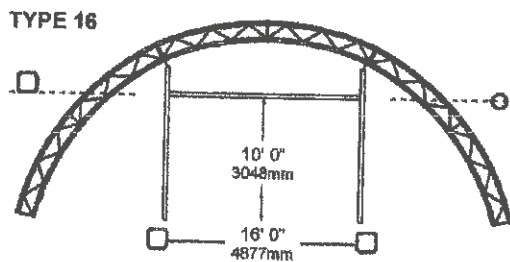
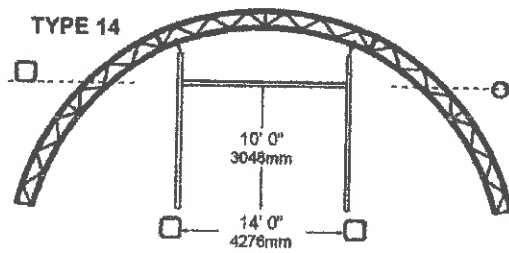
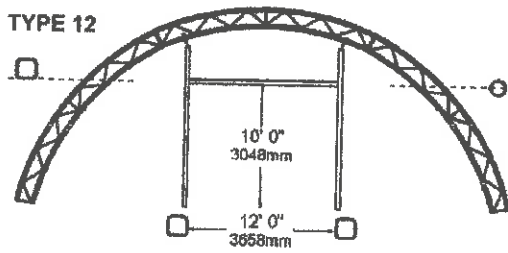


STANDARD 36' WIDE - ATLAS 18

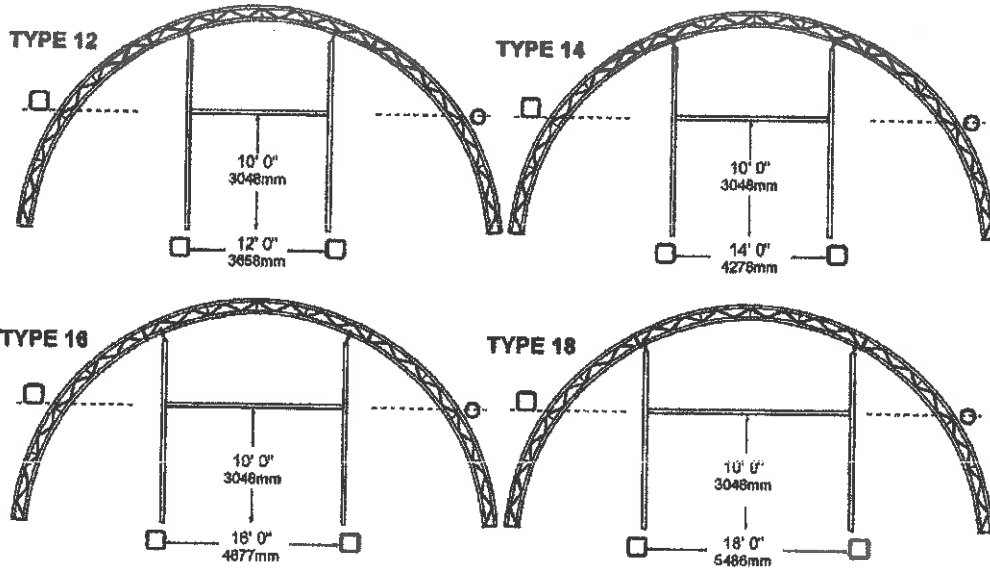


**ALWAYS SEE SUPPLIED
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FOR SIZE OF VERTICALS AND
LOCATION CONFIRMATION**

STANDARD 40' WIDE - ATLAS 18

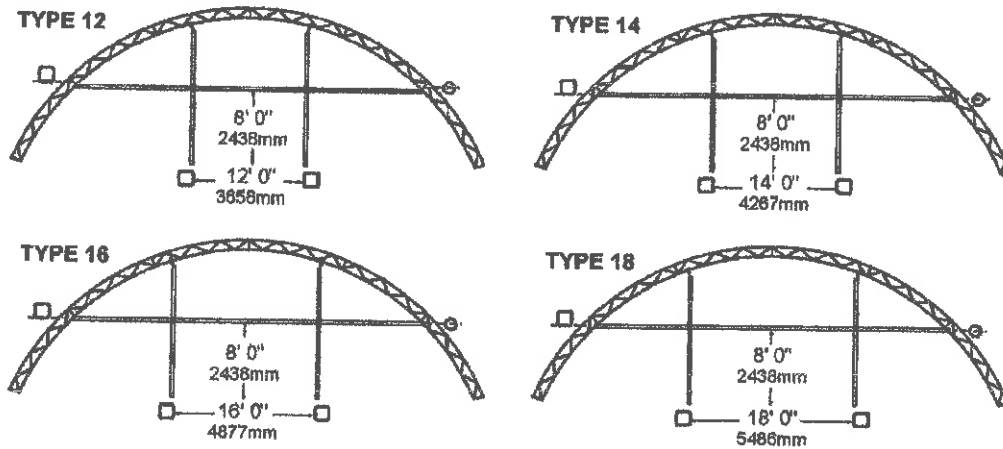


STANDARD 42' WIDE - ATLAS 18

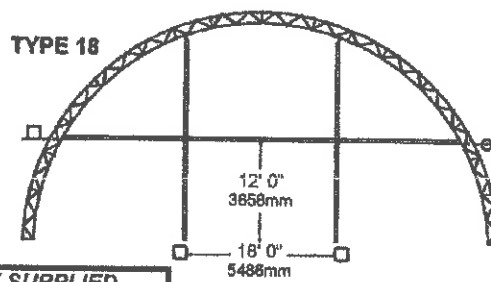
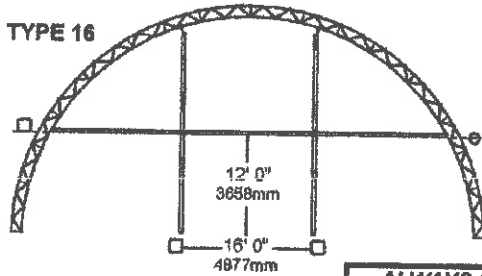
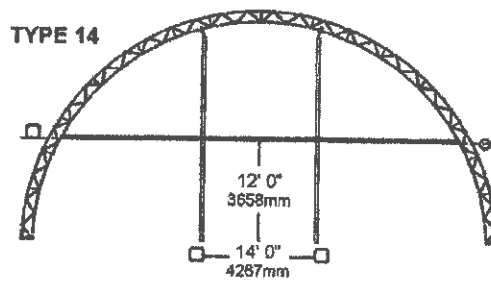
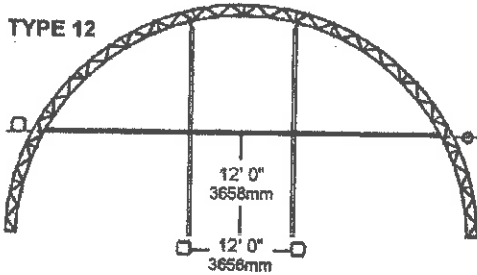


**ALWAYS SEE SUPPLIED
 DRAWINGS IN BUILDING KIT
 FOR SIZE OF VERTICALS AND
 LOCATION CONFIRMATION**

STANDARD 50' WIDE - ATLAS 18

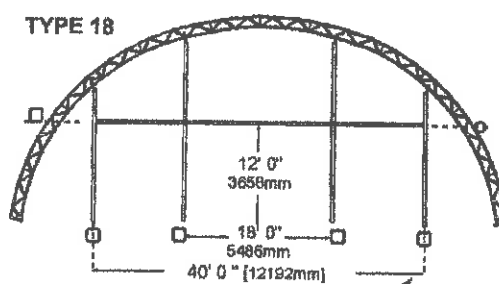
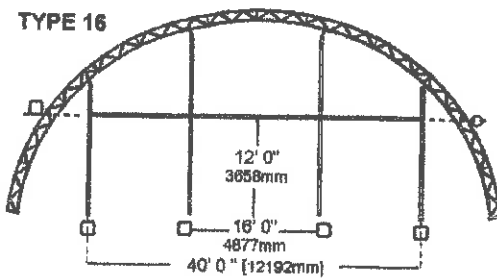
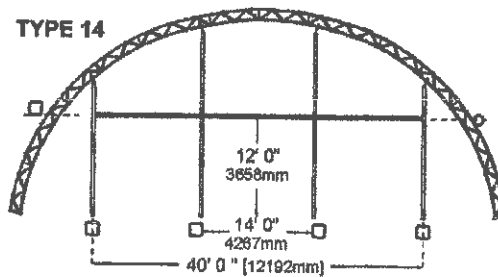
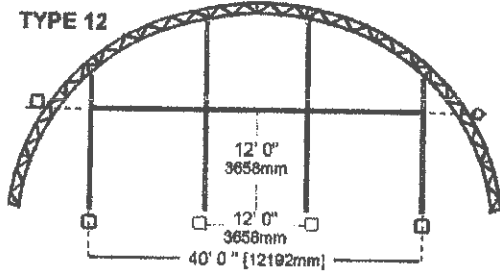


STANDARD 55' WIDE - ATLAS 18



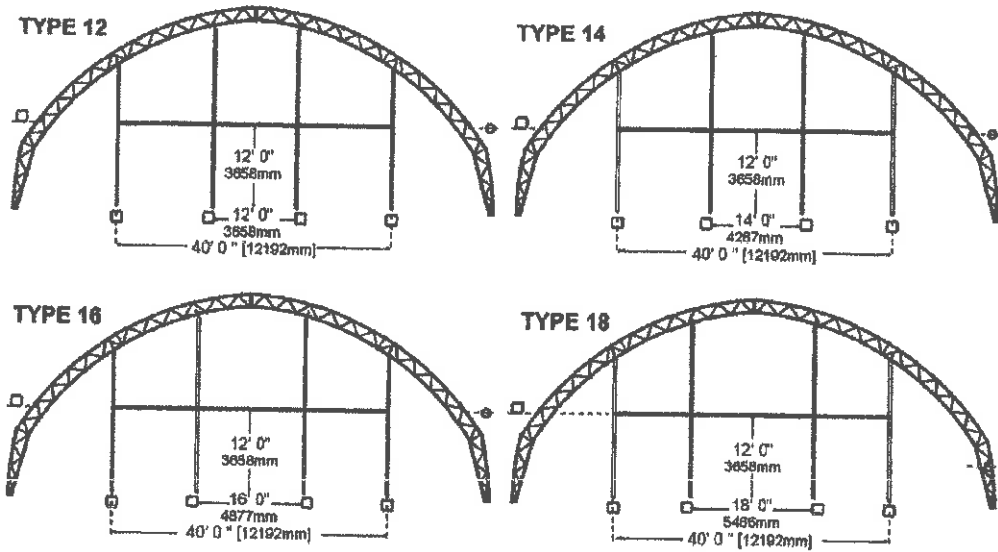
**ALWAYS SEE SUPPLIED
DRAWINGS IN BUILDING KIT
FOR SIZE OF VERTICALS AND
LOCATION CONFIRMATION**

STANDARD 62' WIDE - ATLAS 18



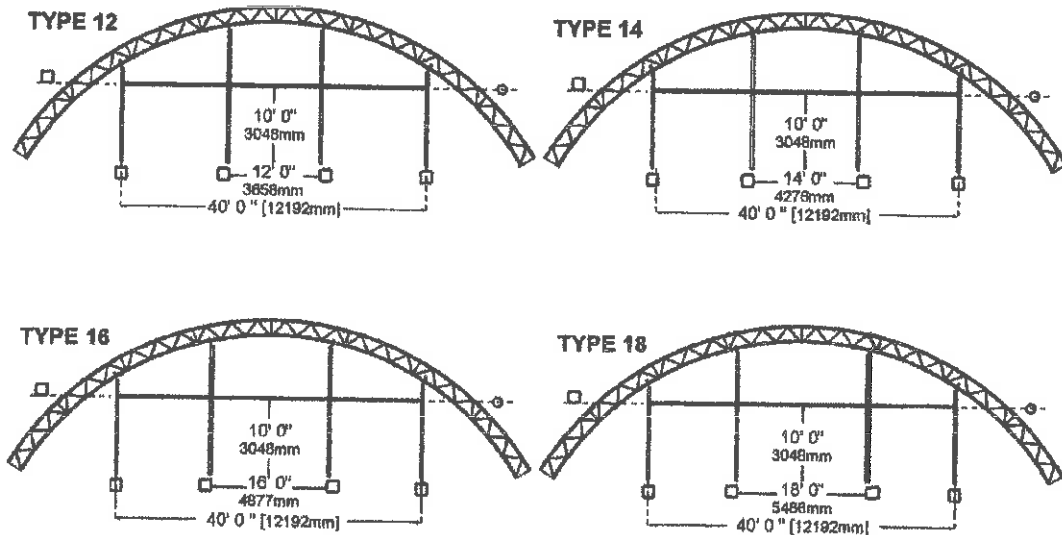
**- OUTSIDE VERTICALS - MEASURE TO
THE CENTER OF STEEL**

STANDARD 65' WIDE - ATLAS 24

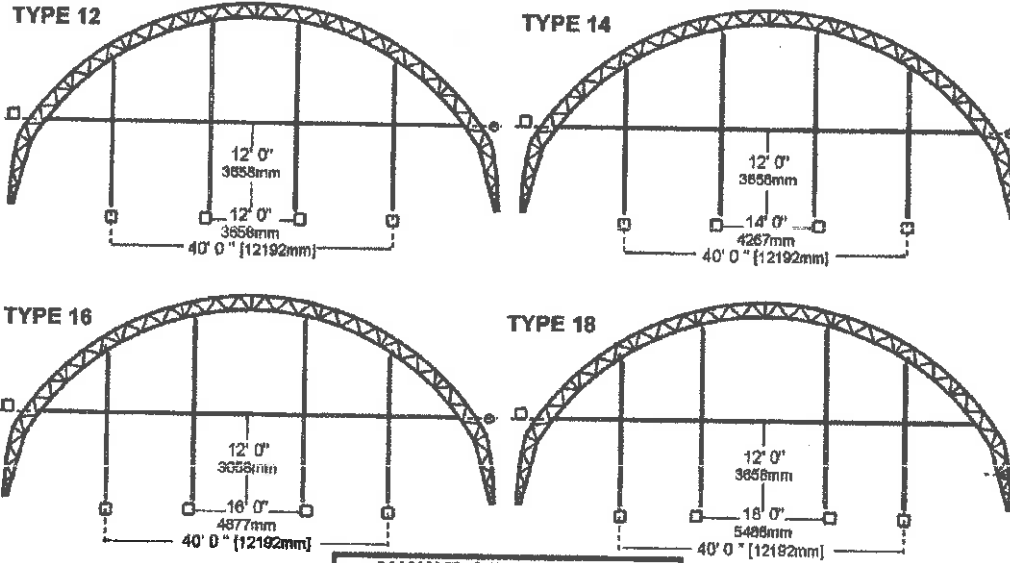


**ALWAYS SEE SUPPLIED
 DRAWINGS IN BUILDING KIT
 FOR SIZE OF VERTICALS AND
 LOCATION CONFIRMATION**

STANDARD 70' WIDE - ATLAS 24

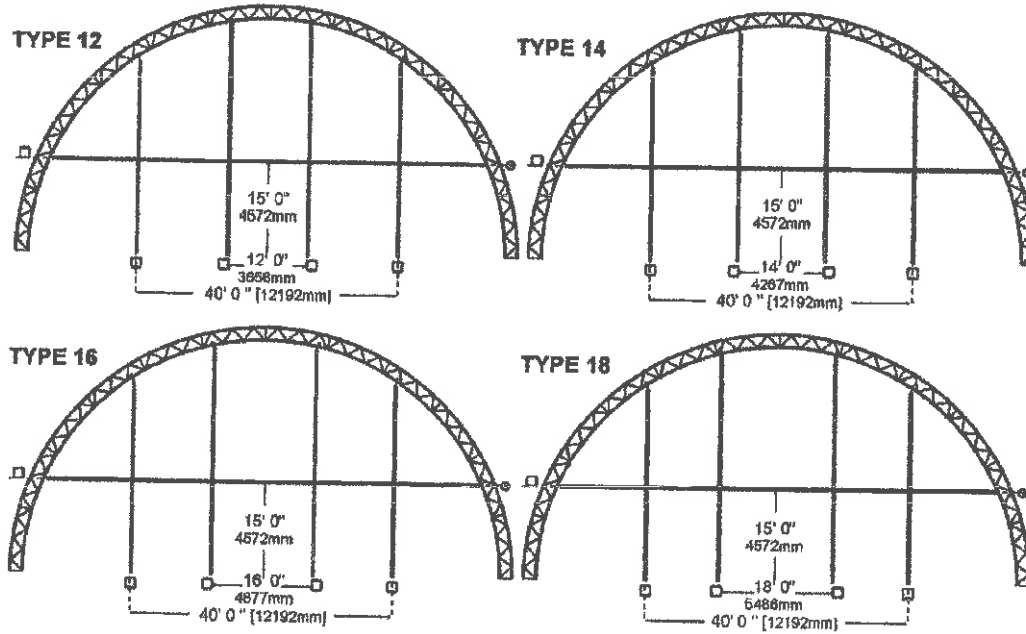


STANDARD 72' WIDE - ATLAS 24



**ALWAYS SEE SUPPLIED
DRAWINGS IN BUILDING KIT
FOR SIZE OF VERTICALS AND
LOCATION CONFIRMATION**

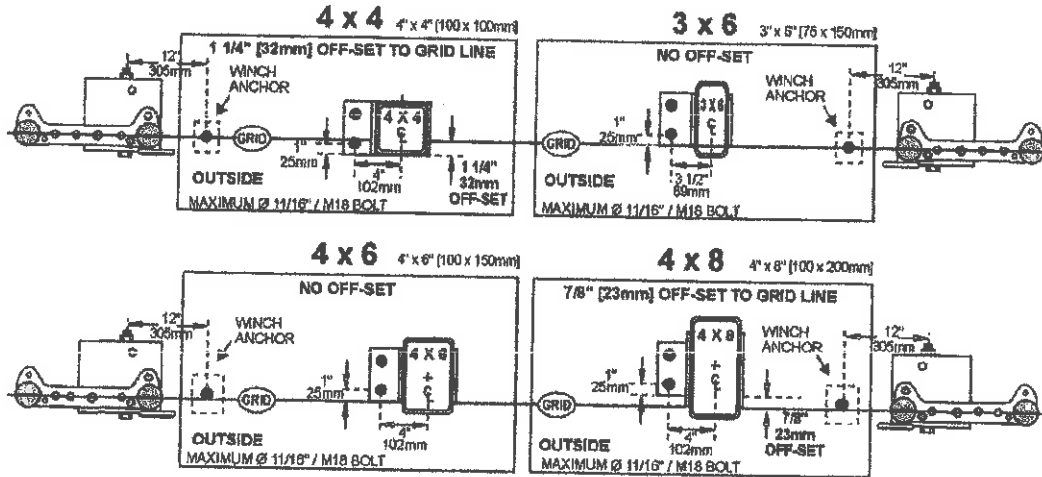
STANDARD 82' WIDE - ATLAS 24



STEP 4

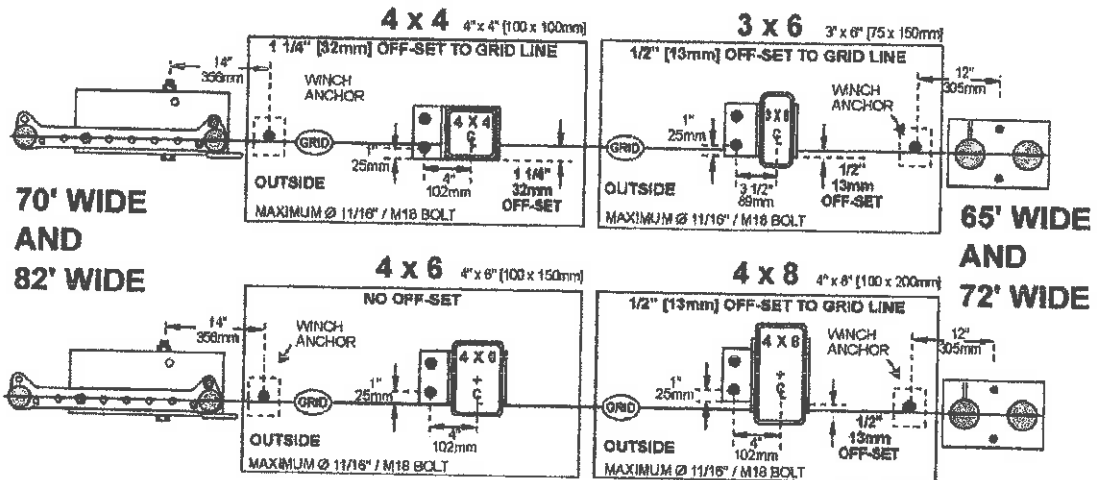
PLAN / INSTALL ANCHORAGE

24' TO 62' WIDE - ATLAS 18



IMPORTANT
More than one size
of vertical can be
used in the end.

65' / 72' / 82' WIDE - ATLAS 24

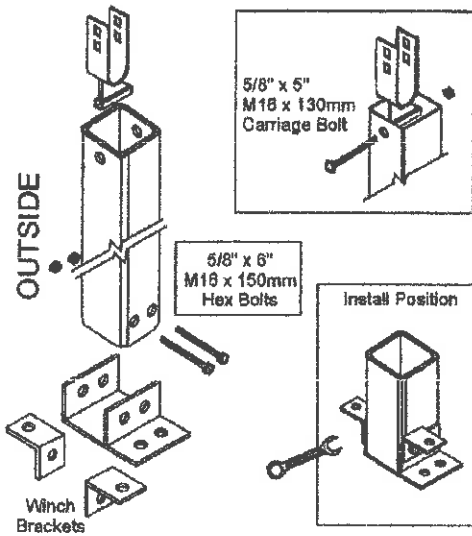


CUSTOM ENDS - USE THE INSTALLATION DIMENSIONS IN THE SUPPLIED DRAWINGS

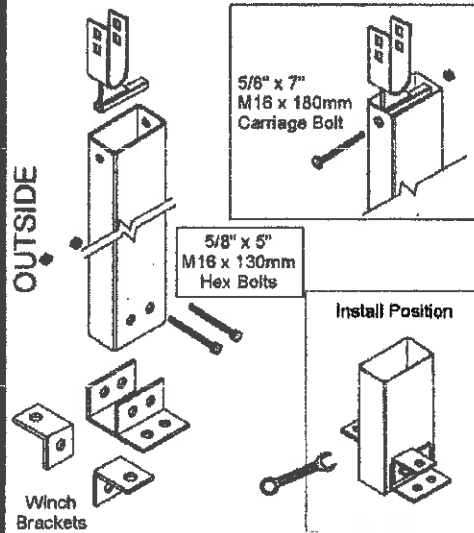
STEP 5

ASSEMBLE VERTICALS

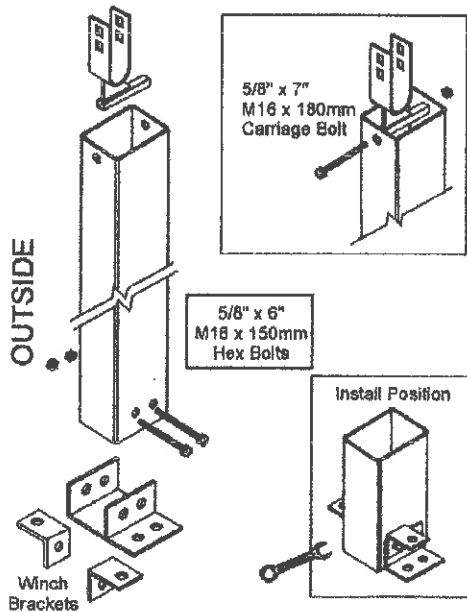
4 x 4



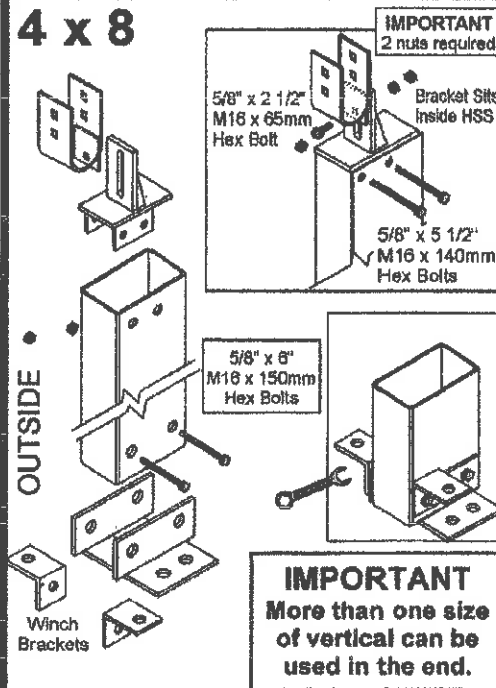
3 x 6



4 x 6



4 x 8

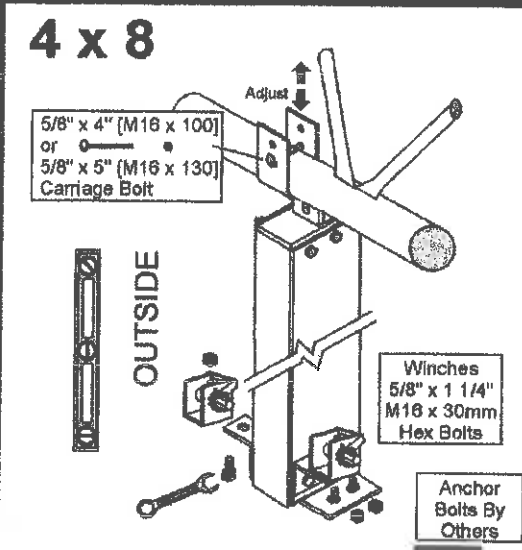
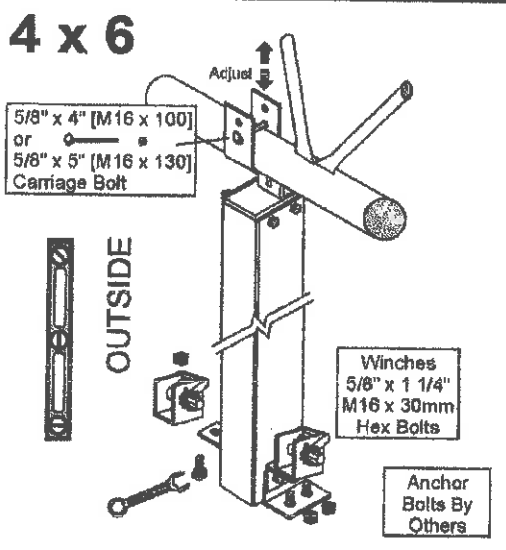
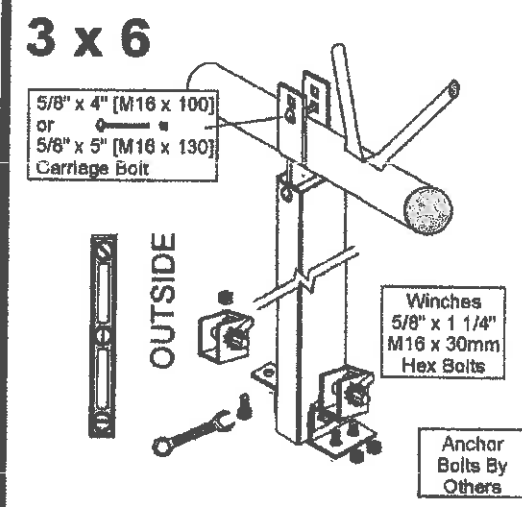
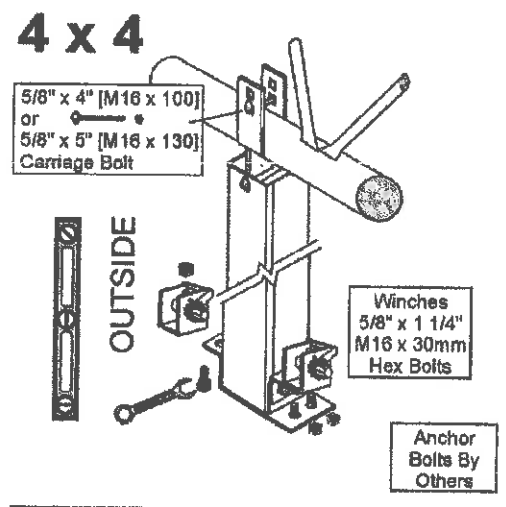


STEP 6 LIFT VERTICALS



STEP 7 ATTACH VERTICALS & INSTALL WINCHES

IMPORTANT: More than one size of vertical can be used in the end.

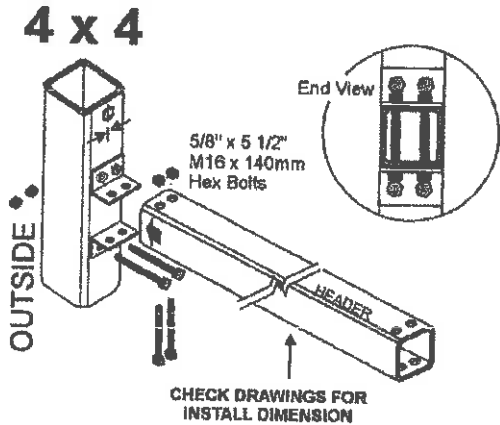


Tighten all bolts/nuts to assembly torque value- See Page 27

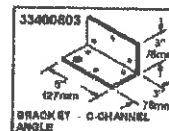
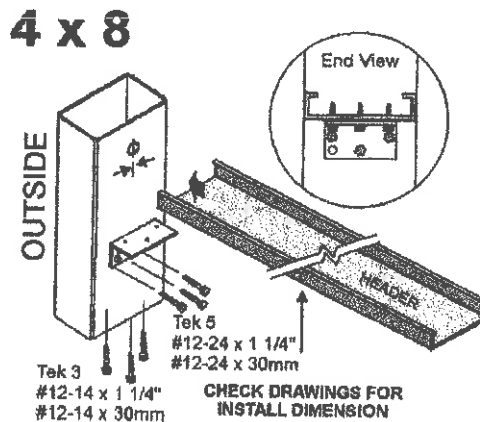
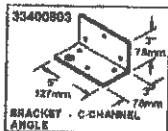
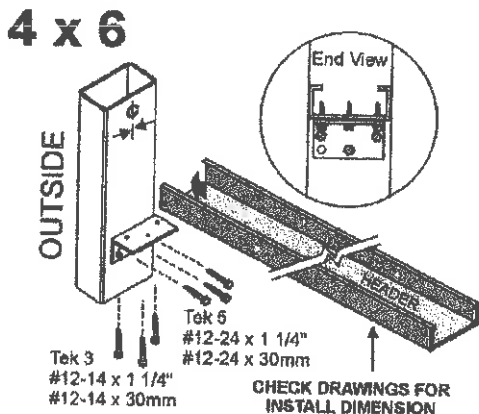
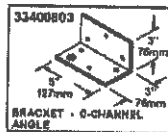
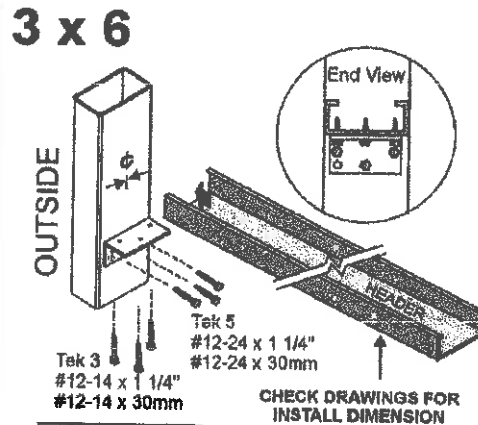
STEP B

INSTALL DOOR HEADERS

If your building end wall has door openings install the door headers at this time. See the drawings that come with the end for installation dimensions.



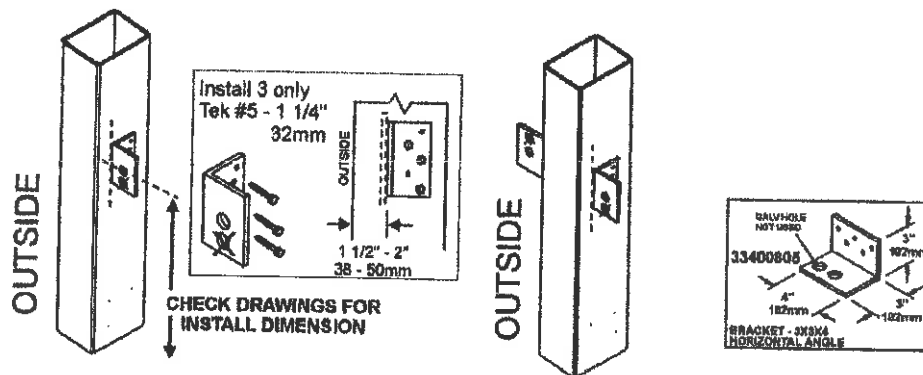
Tighten all bolts/nuts to assembly torque value - See Page 27 -



IMPORTANT
More than one size
of vertical can be
used in the end.

STEP 9

INSTALL HORIZONTAL BRACKETS

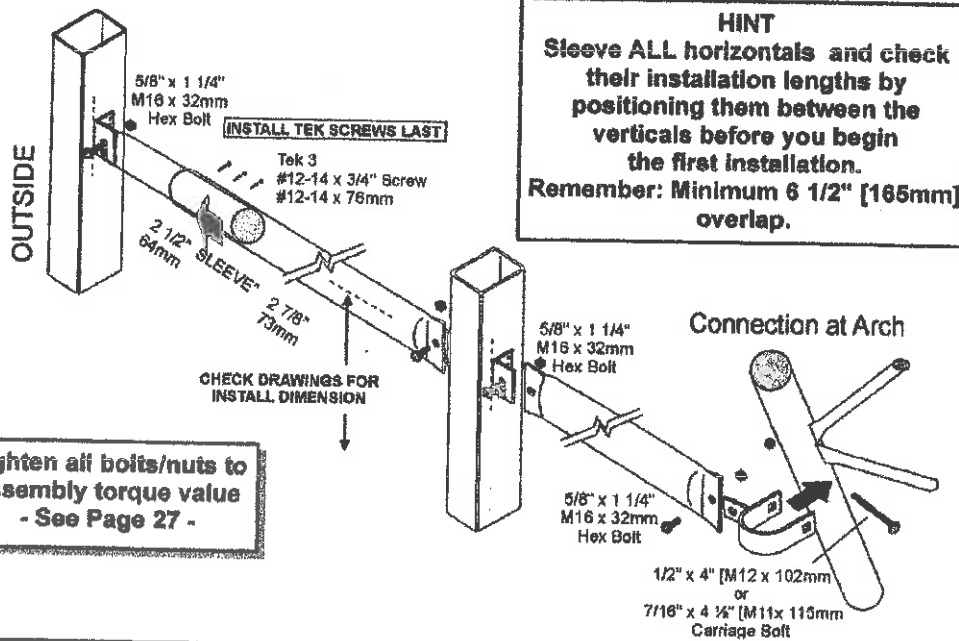


STEP 10

INSTALL HORIZONTALS

Sleeve 2 1/2" [64mm] and 2 7/8" [73mm] pipe together to make horizontals to fit between the verticals.

ALWAYS maintain a MINIMUM of 6 1/2" [165mm] overlap in the sleeve.



HINT
Sleeve ALL horizontals and check their installation lengths by positioning them between the verticals before you begin the first installation. Remember: Minimum 6 1/2" [165mm] overlap.

Tighten all bolts/nuts to assembly torque value - See Page 27 -

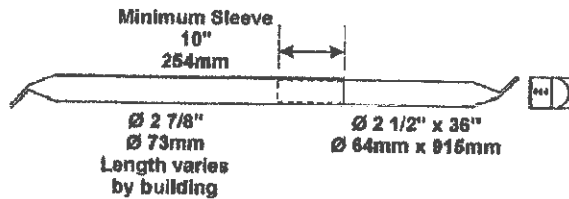
CUSTOM ENDS - USE THE INSTALLATION DIMENSIONS IN THE SUPPLIED DRAWINGS

STEP 11

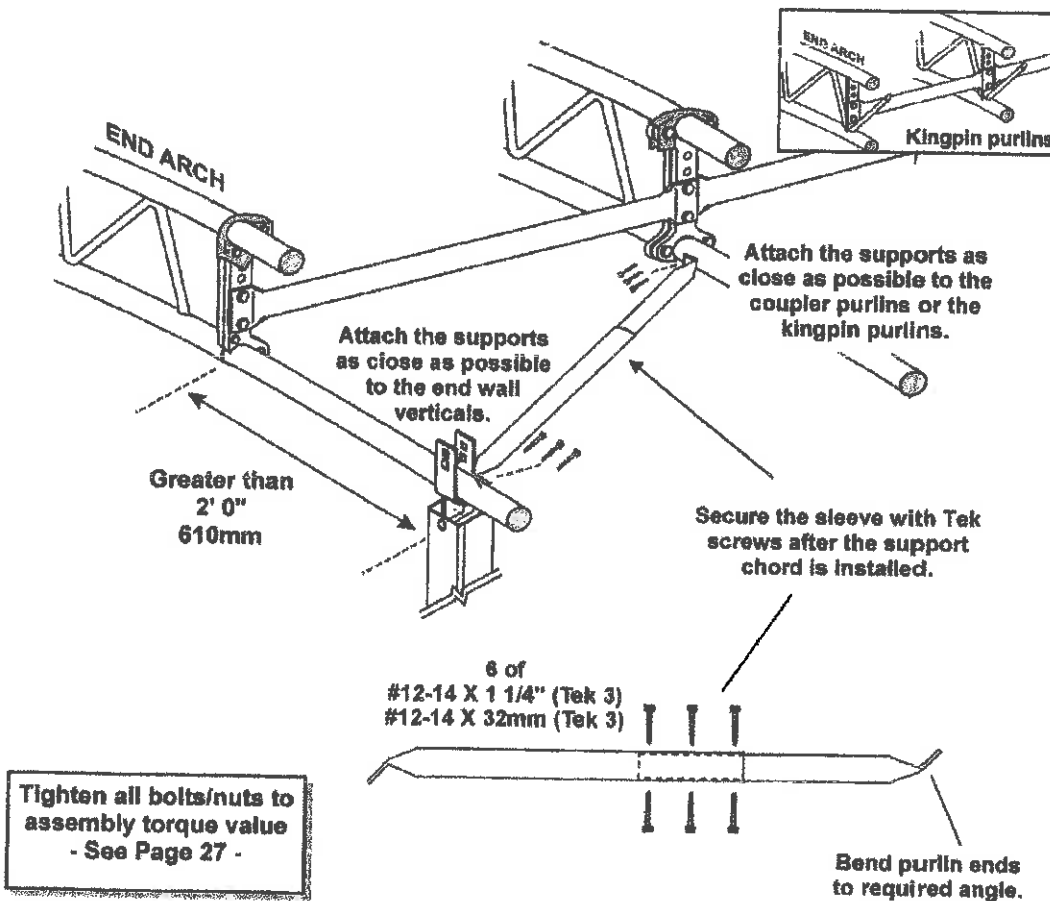
INSTALL CHORD SUPPORTS - When Supplied

Buildings are supplied with chord supports when the distance between a purlin attached to a coupler or kingpin on the end arch and an end wall vertical attachment is greater than 2' 0" [610mm].

When assembling a chord support ALWAYS maintain a MINIMUM of 10" [254mm] overlap in the sleeved portion.



CHECK ENGINEERED DRAWINGS FOR CHORD SUPPORT LENGTHS AND PLACEMENT FOR YOUR BUILDING



Tighten all bolts/nuts to assembly torque value - See Page 27 -

STEP 12

PERSONNEL DOOR FRAMES ARE ORDERED SEPARATELY

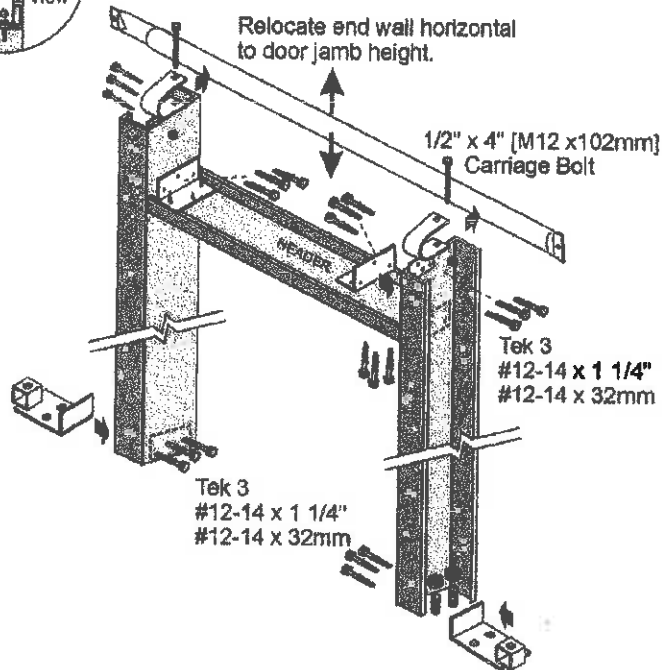
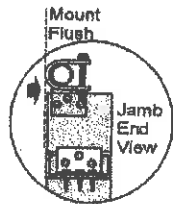
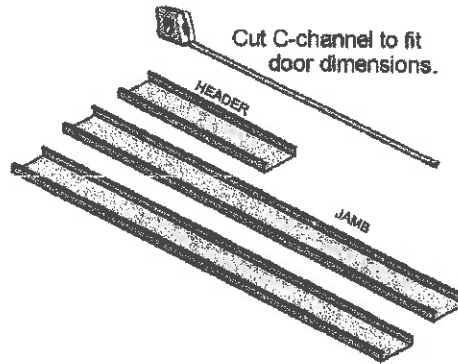
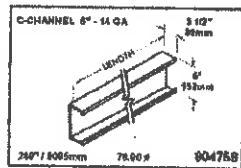
PERSONNEL DOOR FRAMES

If your building end wall requires personnel door framing install the door header and jambs at this time.

If you are installing factory supplied door framing see the Engineered drawings that come with the end for installation dimensions.

DO NOT RELOCATE END WALL VERTICLES TO ACCOMMODATE A DOOR OPENING UNLESS INDICATED IN DRAWINGS.

C-channel is supplied as a single length. Cut to fit as required.



CUSTOM ENDS - USE THE INSTALLATION DIMENSIONS IN THE SUPPLIED DRAWINGS

IMPORTANT - INSTALL COVER BEFORE PROCEEDING

Wind damage can occur if end panels are installed before the cover.
Install the upwind end panel first. Always install both end panels the same day.

STEP 13

INSTALL LASHING WINCHES

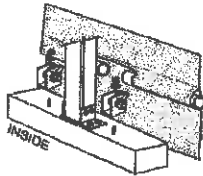
The HSS anchor bolts, and winch mounts for wall mounted buildings, are determined by the foundation design, by the construction material used and the location of the fastening pipe. Consult a foundation engineer for the appropriate anchors for your application.

The recommended maximum diameter anchor bolt size for the steel bases and brackets is \varnothing 5/8" [M16]. The lashing winches require a \varnothing 5/8" [M16] bolt.

Anchor bolts and threaded rod hardware are custom ordered items.

If your building has an extended drop end panel, and the fastening pipe finishes below the steel, mount the lashing winches 12" [305mm] below the fastening pipe.

Grade beam or concrete wall



STEP 14

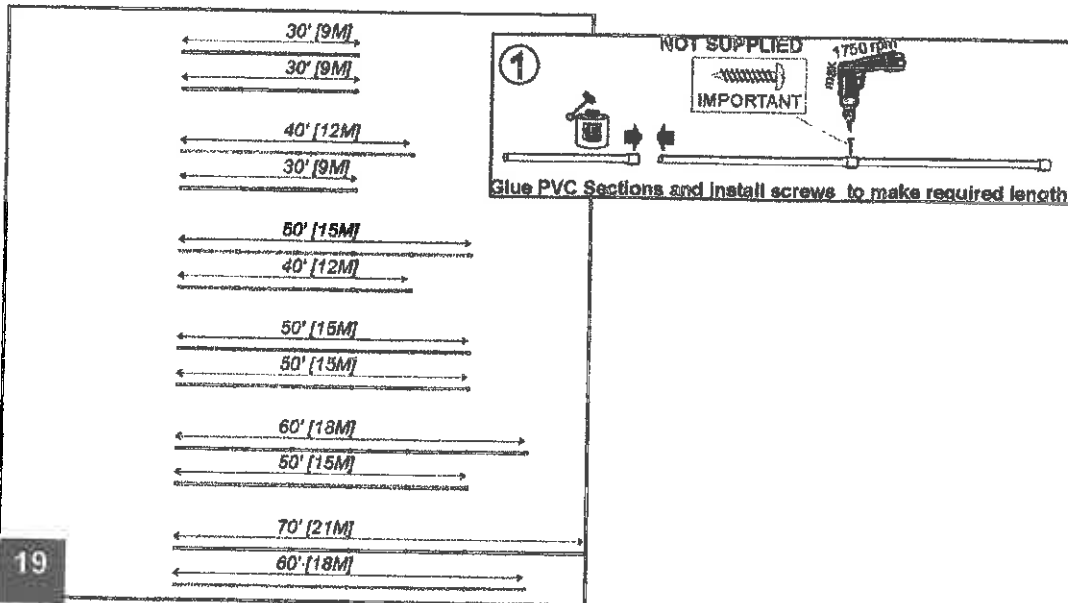
INSTALL END PANEL - PVC TYPE

BUILDINGS 24' IN WIDTH AND LARGER

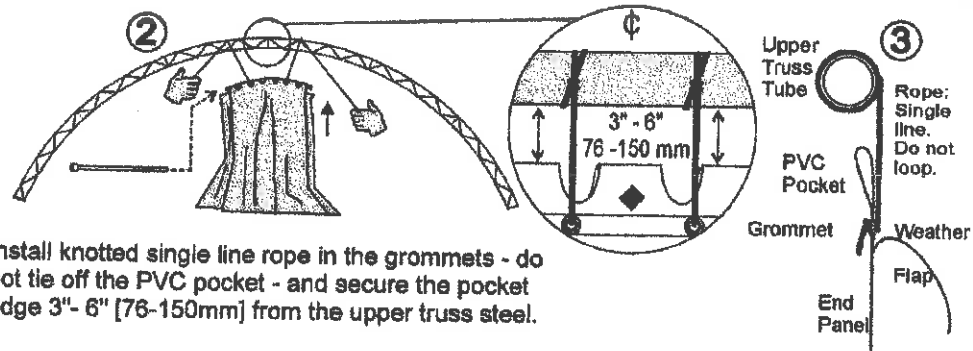
Release the end flap cables and flip the end flap over the top of the building to access the end arch.

Check the installed frames for jagged or sharp edges that may damage the end panel.

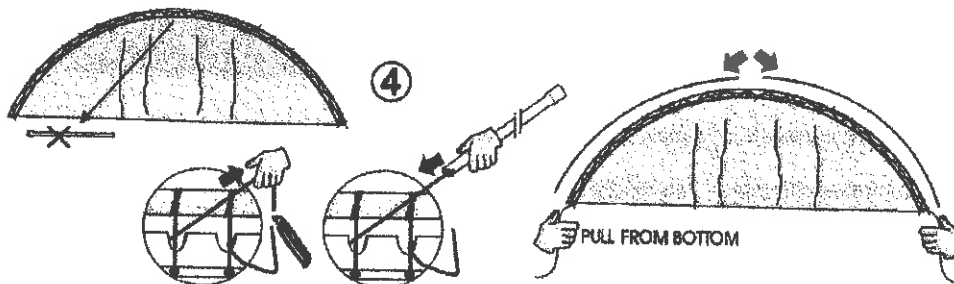
- 1. Assemble 10' [3M] lengths of 1" [25mm] PVC pipe. In most applications, assemble 2 halves and install each half from the center down.



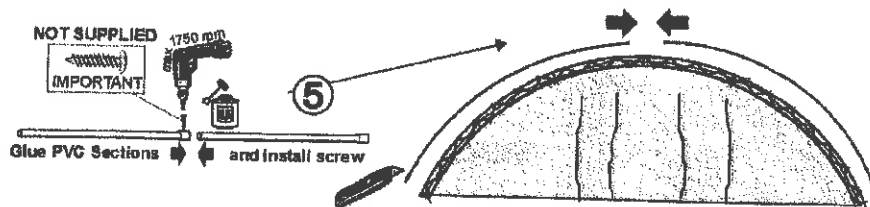
2. Insert a single 10' [3M] length of PVC in the top center of the end panel. Attach 1 or 2 ropes and lift the end panel up to the UPPER cord.
Use the center mark on the end panel to align the panel.



3. Install knotted single line rope in the grommets - do not tie off the PVC pocket - and secure the pocket edge 3"- 6" [76-150mm] from the upper truss steel.
4. Remove the single PVC tube and install the prepared sections of PVC from the top center down. Use the pull line in the pocket if one is supplied.

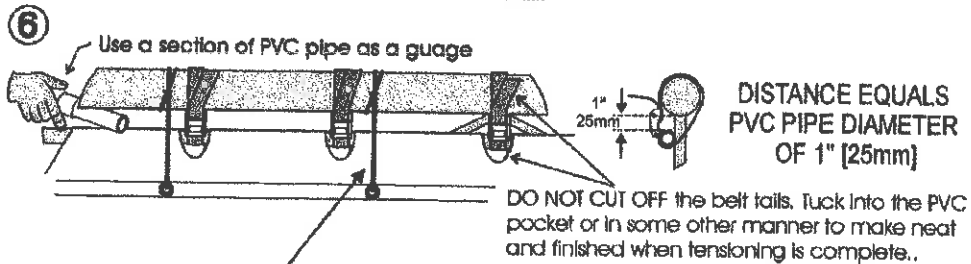
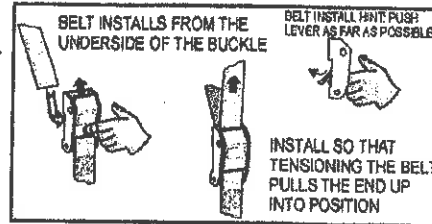


5. Join the 2 sections of PVC inside the pocket when both sections are installed. If necessary cut the PVC to finish to the bottom of the end panel.



- Attach the 1" [25mm] belts w/ cam buckles to the top truss tube and the PVC at every pocket notch.

IMPORTANT: Adjust the belt to make the distance between the truss pipe and the PVC pipe equal to the PVC pipe diameter - 1" [25mm].



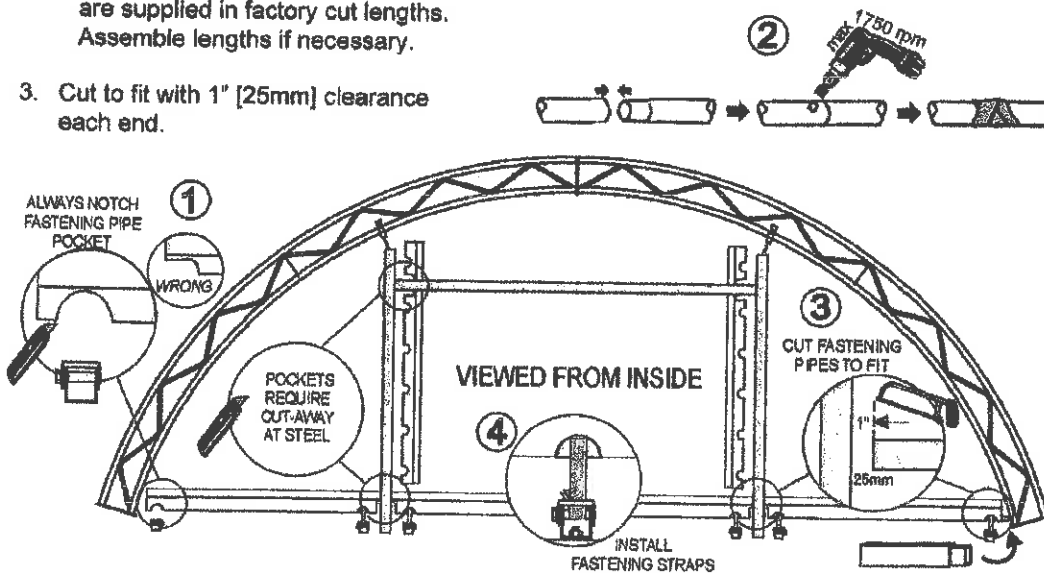
- Release and remove the ropes suspending the end panel after all belts are installed.

STEP 15

INSTALL FASTENING PIPES

- Notch out the fastening pipe pockets at the lashing winches.
- Install fastening pipes. Fastening pipes are supplied in factory cut lengths. Assemble lengths if necessary.

- Cut to fit with 1" [25mm] clearance each end.



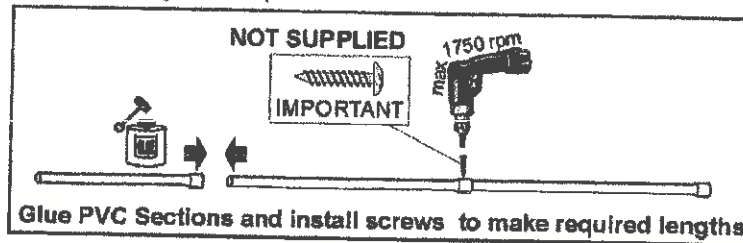
- Install lashing straps and apply LIGHT tension to the end panel lashing winches.

STEP 16**INSTALLATION CHECK****BUILDINGS 24' IN WIDTH AND LARGER - PVC
CHECK BELTING NOW**

Check that the end belts are even in the notches. Reposition the belts if necessary and adjust fastening pipe tension to remove as many creases and wrinkles as possible.

STEP 17**INSTALL THE VERTICAL PVC PIPE**

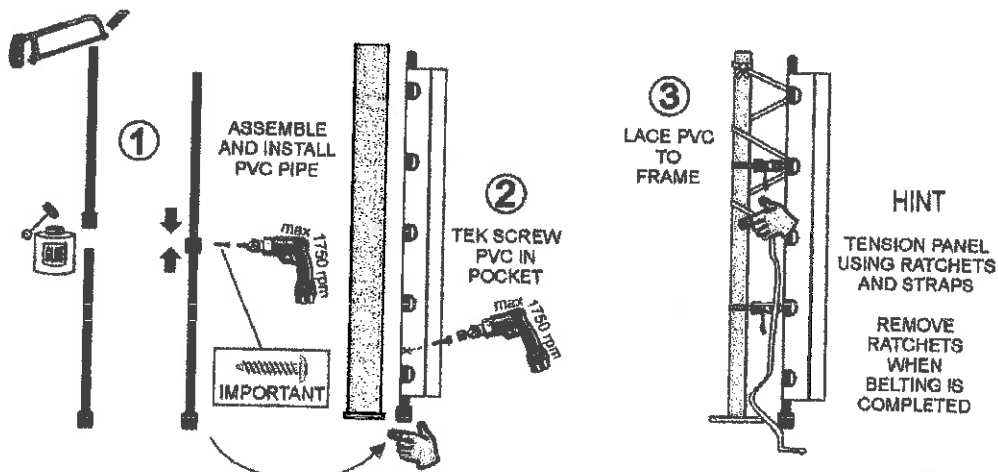
1. Assemble and install the VERTICAL PVC pipe sections. Glue lengths of PVC pipe together and/or cut to length as required.



IMPORTANT - ALWAYS install a screw (not supplied) at every connection. PVC glue loses adhesive qualities when applied in cold weather and in damp and humid conditions.

2. INSTALL 3/4" [75mm] TEK 3 screws to hold the PVC in the pockets. This prevents the PVC from falling out if the panel tension relaxes and assists during panel lashing.
3. Lace the PVC to the frame using 1" [25mm] belting

IMPORTANT - DO NOT place PVC over or under the steel frame. Assemble and/or cut PVC to fit between the steel frame.



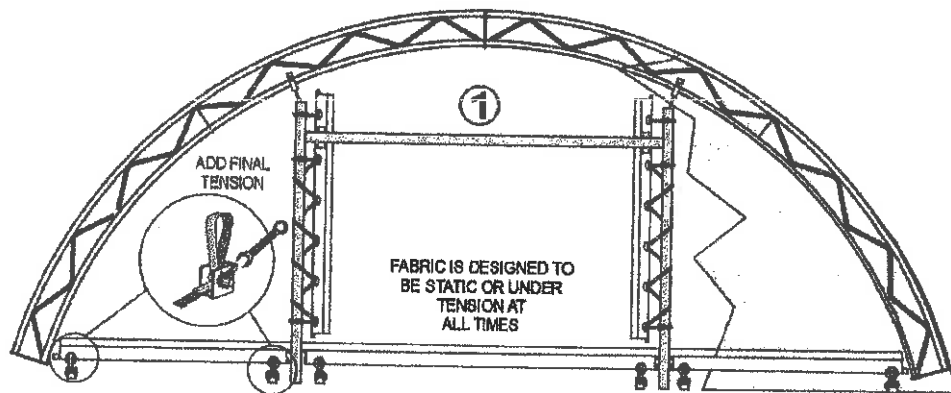
ALWAYS TENSION MIDDLE SECTIONS FIRST

22

STEP 18

TENSION AND FINISH THE END PANEL

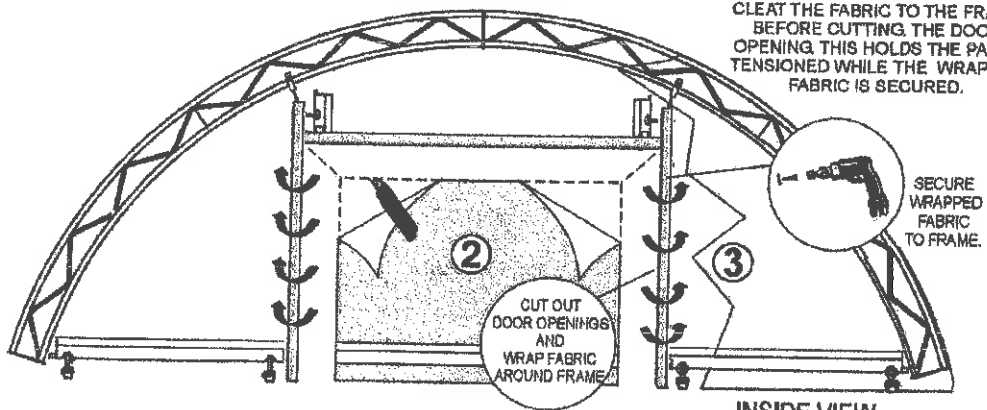
1. Add final tension to the lashing winches. Adjust to remove as many creases and wrinkles as possible.
DO NOT OVERTIGHTEN - less tension is required than on the cover lashing winches.
IF THE DOOR OPENING WILL HAVE AN OPERATING DOOR, INSTALL DIMENSIONAL LUMBER JAMBS AND HEADERS NOW.
DO NOT INSTALL DOOR HARDWARE UNTIL END PANEL INSTALLATION IS COMPLETE.
2. Cut out door openings.
3. Tension and secure the wrapped fabric.



INSIDE VIEW

IMPORTANT FINISHING HINT

CLEAT THE FABRIC TO THE FRAME BEFORE CUTTING THE DOOR OPENING THIS HOLDS THE PANEL TENSIONED WHILE THE WRAPPED FABRIC IS SECURED.



INSIDE VIEW

CLEATING AND HARDWARE TO SECURE THE WRAPPED FABRIC IS NOT SUPPLIED.

STEP 19

SECURE LASHING STRAPS

1. Secure the lashing straps to the fastening pipe by using pipe clips or fender washers and 1/4"-14 x 3/4" [7mm -14 x 20mm] Tek 3 self-drilling screws. Install the screws through the fastening strap into the fastening pipe.



Fender Washer

Tek 3
1/4"-14 x 3/4"
7mm-14 x 20mm

NOTE: Failure to secure the corner fastening straps to the pipe could result in possible damage to the panel.

STEP 20

SECURE THE APRON

ALWAYS SECURE THE APRON

The fabric is designed to be under tension at all times.

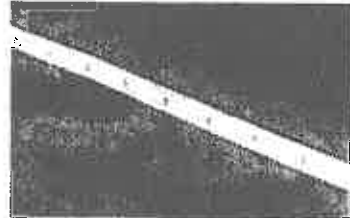
GROUND

Use dimensional lumber to attach the apron to the frame or foundation.
Or back fill the apron at the foundation.

WALL

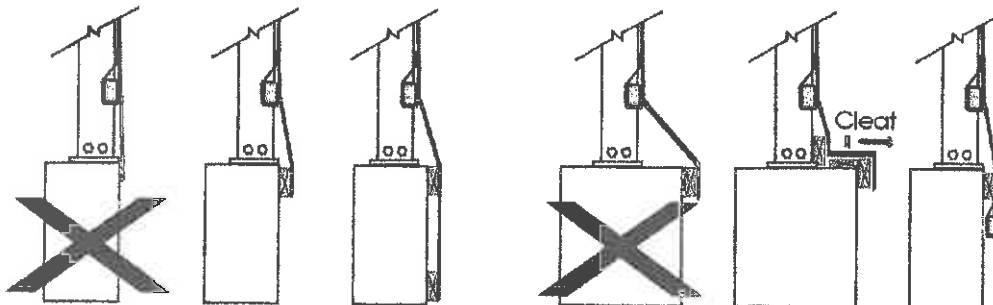
Cleat or fasten the apron securely.
Apron fastening hardware is not supplied.

TERMINATION STRIP OR
EQUIVALENT IS NOT SUPPLIED



CONCRETE

Never install fabric over concrete edges.
Always install a dimensional lumber buffer or equivalent.

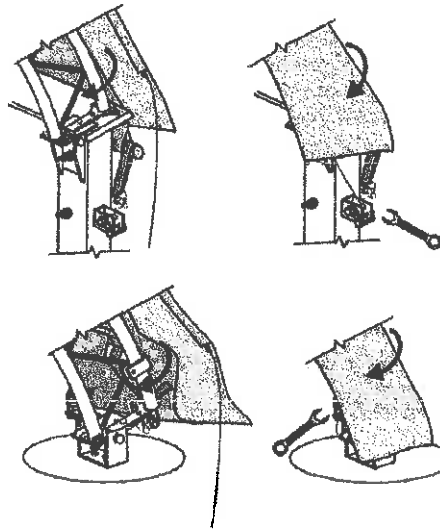


STEP 21

RE-INSTALL THE END FLAP CABLES

1. Replace the end flap over the outside arch and tighten the end flap ratchets or winches.
2. Tighten both sides of the end flaps evenly until all of the slack in the flap is gone.

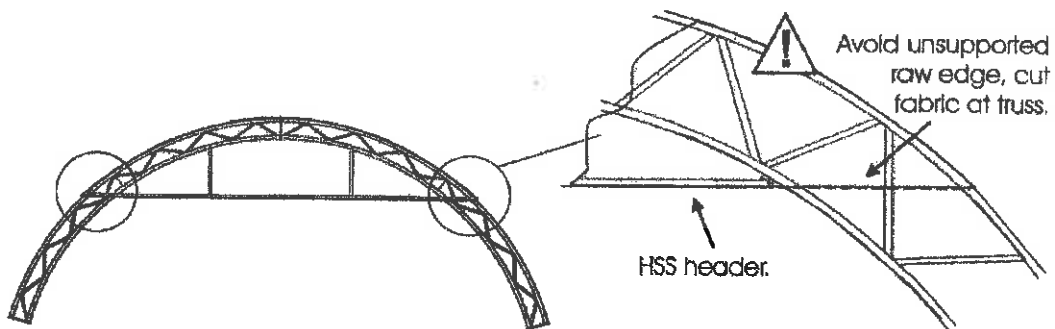
It may be necessary to repeat the tightening procedure several times.



STEP 22

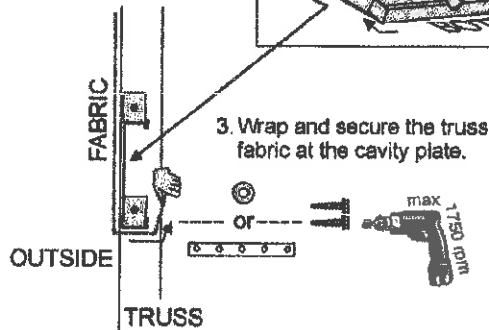
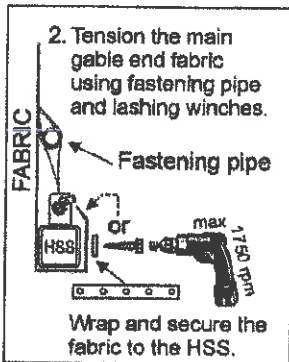
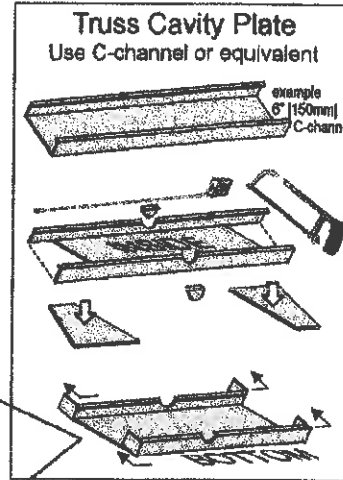
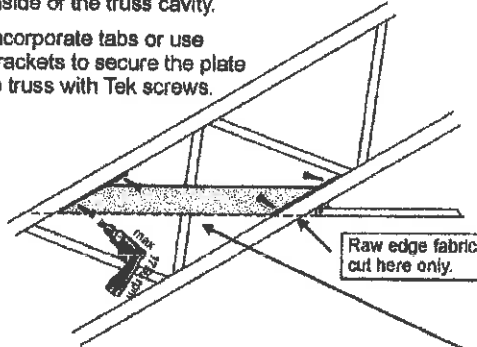
GABLE AND ELEVATED END PANEL

Gable and Elevated End Panel Termination at Truss



Termination Option

1. Cut and form a plate to fit inside of the truss cavity.
Incorporate tabs or use brackets to secure the plate to truss with Tek screws.



STEP 23

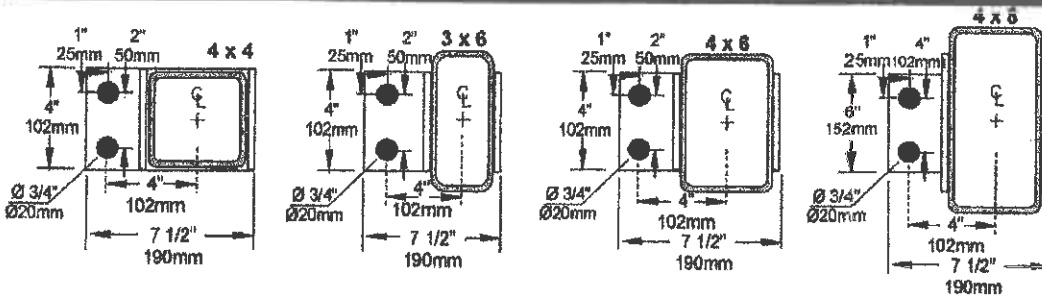
READ MAINTENANCE SCHEDULE Page 3

STEP 24

COMPLETE WARRANTY REGISTRATION


www.britespanbuildings.com

TEMPLATES



End Components

Chord Supports



| ITEM | LENGTH /mm | WEIGHT /kg |
|--------|-------------|-----------------|
| 893737 | 108" / 2743 | 22.18 # / 10.08 |
| 893738 | 132" / 3353 | 34.82 # / 15.84 |
| 893739 | 156" / 3962 | 41.32 # / 17.74 |
| 893740 | 180" / 4572 | 47.72 # / 21.68 |

Hardware

| | |
|---|--------|
| #11-14 X 3/4" (Tek 3) M8 - 14 x 20mm | 800020 |
| #12-14 X 1/2" (Tek 3) #12-14 X 30mm | 803040 |
| #12-24 X 1/4" (Tek 3) #12-24 X 30mm | 803820 |
| 5/16" MAG CHUCK DRIVER M8 | 840005 |
| 3/8" MAG CHUCK DRIVER M10 | 804100 |

Hardware

| | |
|---------------------------------------|--------|
| HEX BOLT 5/8" X 4 5/16" M16 X 30mm | 800037 |
| 5/8" X 2 1/4" M16 X 60mm | 800055 |
| 5/8" X 4" M16 X 100mm | 800065 |
| 5/8" X 5" M16 X 130mm | 800070 |
| 5/8" X 6 1/2" M16 X 165mm | 800038 |
| 5/8" X 8" M16 X 200mm | 800075 |

Hardware

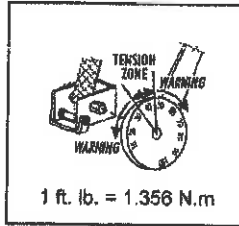
| | |
|------------------------------------|--------|
| CARR BOLT 1/2" X 4" M12 X 100mm | 800051 |
| CARR BOLT 3/8" X 4" M12 X 100mm | 800179 |
| 3/8" X 4" M12 X 100mm | 800181 |
| 3/8" X 6" M12 X 150mm | 800177 |
| 3/8" X 7" M12 X 180mm | 800178 |
| NUT - 3/8" M12 | 801050 |
| WASHER - FLAT - 3/8" / M12 | 802010 |

Hardware

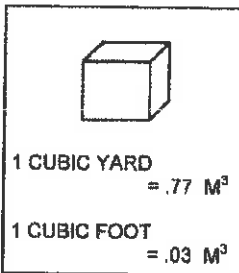
| | |
|---|--------|
| CUSTOM CHORD SUPPORT Ø 2 1/2" (63mm) - 14 GA | 893629 |
| CARR BOLT 1/2" X 4" M12 X 100mm | 800920 |
| 1/2" X 4 1/2" M12 X 115mm | 893383 |
| NUT - 1/2" / M12 | 893153 |
| WASHER - FLAT - 1/2" / M12 | 893154 |
| 1/4" PENDOR WASHER / M8 | 802000 |

CONVERSIONS

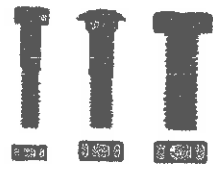

| INCHES | | MILLIMETERS | |
|--------|-------|-------------|------|
| 1/32" | | | |
| 2/32 | 1/16" | | 1.6 |
| 3/32 | | | |
| 4/32 | 2/16 | 1/8" | 3.2 |
| 5/32 | | | |
| 6/32 | 3/16" | | 4.8 |
| 7/32 | | | |
| 8/32 | 4/16 | 2/8 | 6.4 |
| | | 1/4" | |
| | | | 9.5 |
| | | | |
| | | | 12.7 |
| | | | |
| | | | 15.9 |
| | | | |
| | | | 19.0 |
| | | | |
| | | | 22.2 |
| | | | |
| | | | 25.4 |



| FEET | METERS |
|------|--------|
| 1' | .305 |
| 2 | .610 |
| 3 | .914 |
| 4 | 1.219 |
| 5 | 1.524 |
| 6 | 1.829 |
| 7 | 2.134 |
| 8 | 2.438 |
| 9 | 2.743 |
| 10 | 3.048 |
| 25 | 7.620 |
| 30 | 9.144 |
| 35 | 10.668 |
| 40 | 12.192 |
| 45 | 13.716 |
| 50 | 15.240 |
| 60 | 18.288 |
| 70 | 21.336 |
| 80 | 24.384 |
| 90 | 27.432 |
| 100' | 30.480 |



ASSEMBLY TORQUE VALUES

| Ø SIZE INCH/mm | THREADS per INCH/25mm | SUGGESTED ASSEMBLY TORQUE VALUES FOR STRUCTURAL BOLTS | | | | |
|-------------------|--------------------------|---|------|----------------|------|---|
| | | GRADE 5 ft - lbs | | GRADE 5 N.m | | |
| | | DRY | WET* | DRY | WET* | |
| 3/8 M10 | 16 | 30 | 23 | 40 | 30 |  |
| 7/16 M12 | 14 | 50 | 35 | 70 | 50 | |
| 1/2 M12 | 13 | 75 | 55 | 100 | 75 | |
| 5/8 M16 | 11 | 150 | 110 | 200 | 150 | |
| 3/4 M20 | 10 | 260 | 200 | 353 | 270 | |
| 1 1/4 M30 | 7 | 1120 | 840 | 1520 | 1140 | |
| #12 TEK 3 | 14 | 7.7 | - | 10.5 | - |  |
| #12 TEK 5 | 24 | 12.5 | - | 17 | - | |

* Lubricant

BUILDING END WALLS

AN IMPORTANT MESSAGE FOR INSTALLERS AND OWNERS

FABRIC END WALLS must be supported by a framework that is constructed to meet wind load ratings and building safety standards.

If you are constructing a framework for BRITESPAN supplied fabric end panels the framework **MUST BE DESIGNED** to match the fastening system of the fabric end panel and must be constructed to meet wind load ratings and building safety standards.

Failure to comply with the above can result in damage to the building and will void fabric end panel warranty.

Contact a structural engineer or your local authorized BRITESPAN Dealer or Agent for details.

See **LIMITED WARRANTY** on Page 29.

Maintenance Recommendations For Buildings in Corrosive Environments

BUILDING STEEL

BRITESPAN manufactured steel components are hot dipped galvanized, hot zinc plated or coated with a high quality sealant. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building steel.
- Remove any environmental residue that accumulates on the building steel.
- Seal all surface penetration marks with a high quality sealant or a high zinc content paint.

BUILDING HARDWARE

Hardware components are made of galvanized steel or aluminum alloy; are zinc plated with an added leachant-sealant; or are zinc or cadmium plated. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from coming in direct contact with the building hardware.
- Remove any environmental residue that accumulates on the building hardware.
- Seal or protect from corrosion any non-building components that are connected to, or that come in contact with, the building hardware.

ANCHOR BOLTS *It is recommended that the building owner/operator:*

- Seal the exposed anchor bolt threads with a high quality sealant or a high zinc content paint.

FABRIC LASHING WINCHES *It is recommended that the building owner/operator:*

- Spray the lashing winches with a moisture displacing filming lubricant. (WD40 or equivalent)

FABRIC *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building fabric.
- Remove any environmental residue that accumulates on the building fabric.

Where moisture will not contribute to corrosion – wash with water and non-abrasive soap.

FOR TECHNICAL ASSISTANCE CALL YOUR LOCAL DEALER, SALES REPRESENTATIVE OR 1-800-407-5946



37651 Amberley Road
Lucknow, Ontario Canada N0G 2H0
www.britespanbuildings.com

BRITESPAN Building Systems Inc.
 37651 Amberley Road
 Lucknow, ON
 N0G 2H0
 www.britespanbuildings.com



Phone: (519) 528-2922
 Fax: (519) 528-2890
 Email: warranty@britespanbuildings.com

ONLINE WARRANTY REGISTRATION

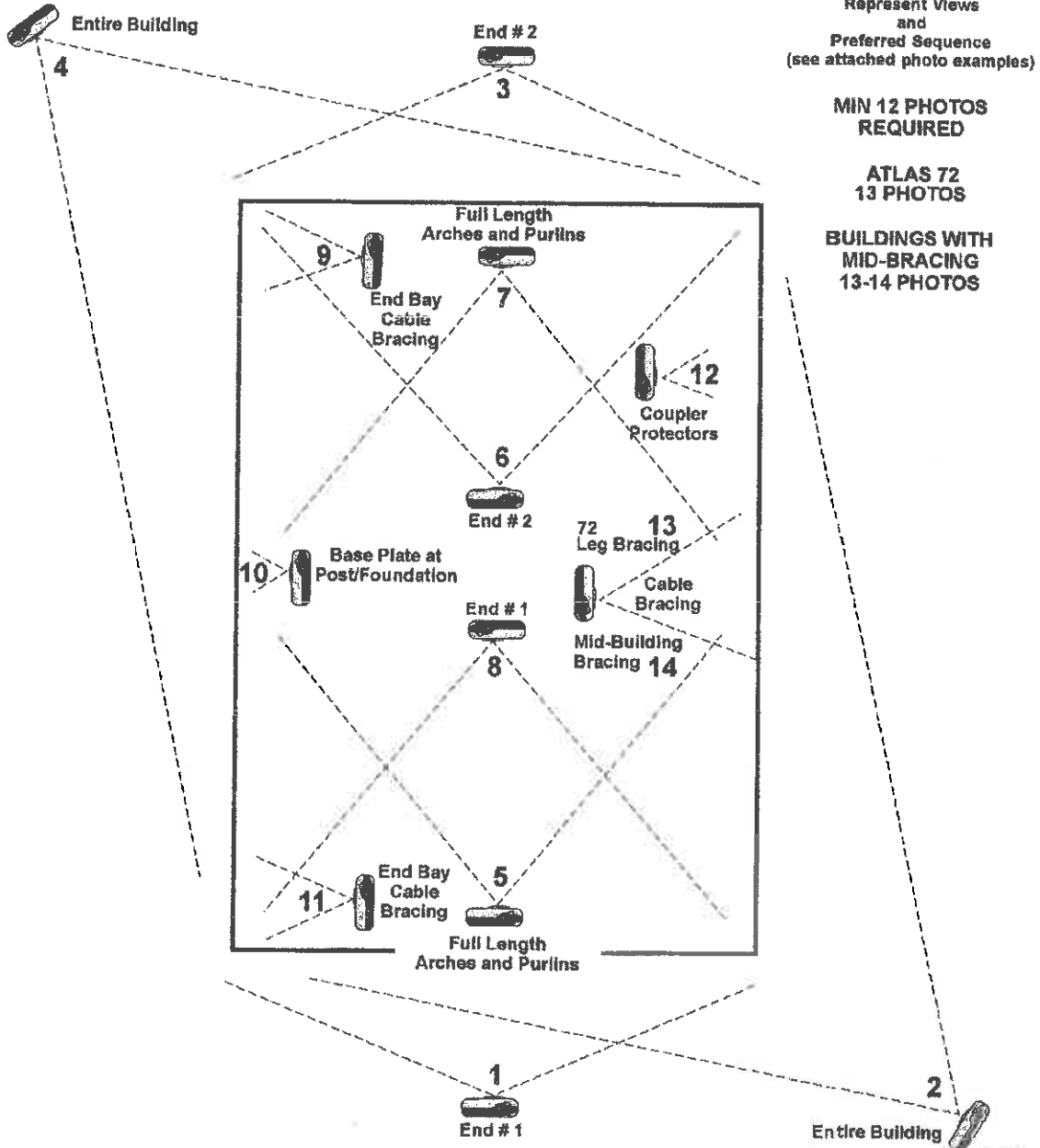
Please go to www.britespanbuildings.com and select warranty tab. Complete all registration information boxes (similar to form below). Attach all photos requested and submit. Please ensure photos are clear and are in the view and sequence shown in the attached examples.

| | | | |
|---|--------------------------|--|--------------------------------|
| 1. Owner Name | | Business / Company Name | |
| 2. Mailing Address | | Agent / Representative | Title |
| 3. City / Town | | 4. Prov/State | 5. Postal Code |
| 6. Country | | Phone | Website |
| 7. () | 8. () | 9. Email Address (required for warranty certificate) | |
| 10. The Building Address is the same as above <input type="checkbox"/> If not, provide the building address | | | |
| 11. x | 12. # of Enclosed Ends | 13. Size of Door / Openings | |
| 14. Building Size (w x l) | | 15. SO# | |
| 16. Date of Purchase | | 17. Name of Dealer Purchased from | |
| 18. Dealer Invoice Number | | Date Warranty Registration Submitted | |
| 19. Building Application: | | Primary Use: | |
| | Industry | | |
| | Self-Installed | Dealer installed | Other |
| 20. The Building foundation was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. The Building steel was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. The Building cover was | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. The end frame(s) were | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. The end(s) fabric were | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | Name of Contractor is required |
| | | | _____ |
| | | | _____ |
| | | | _____ |
| | | | _____ |
| | | | _____ |
| | | | _____ |
| 25. Did you receive the Steel and Fabric and Warranty? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 26. Did you receive Building Maintenance information located in owner/installation manual? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 27. Did you ask the installer or Dealer for instructions on how to perform Building Maintenance procedures? | <input type="checkbox"/> | <input type="checkbox"/> | |
| Comments | | | |
| _____ | | | |

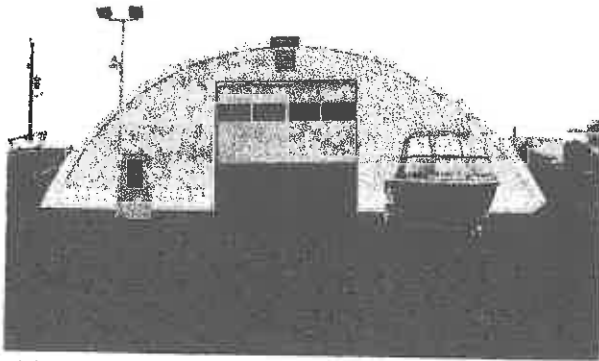
Allow 90 days from date of registration submitted for Processing and Warranty Evaluation of photos. If you are not emailed a Warranty Certificate within this time frame please contact you BRITESPAN Representative. Use the building SO# as your trace number. Note: Warranty only valid with warranty registration and required photos. See attached for photo instructions.



BRITESPAN Warranty Photo Registration

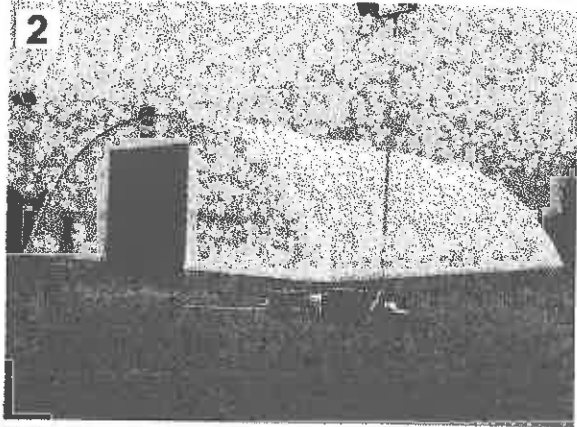


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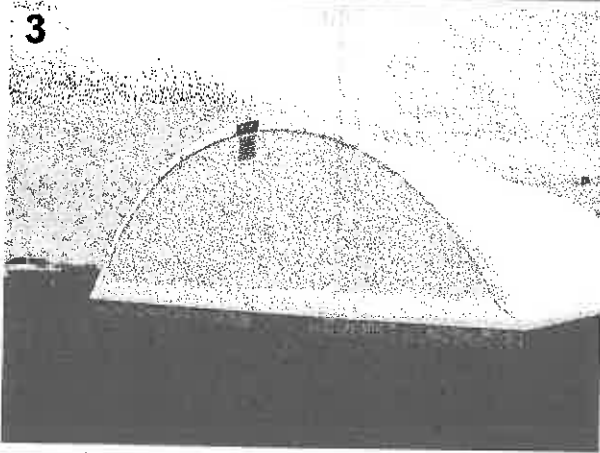


REQUIRED VIEWS

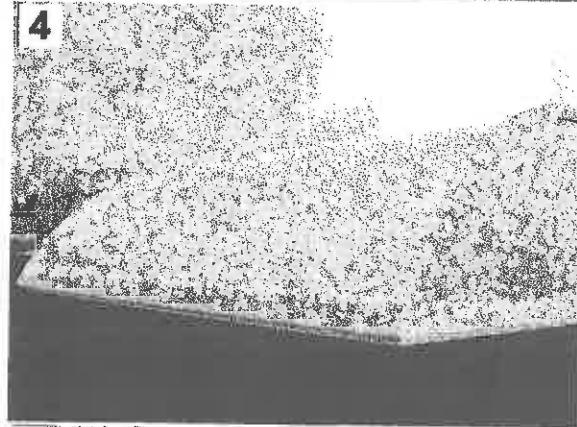
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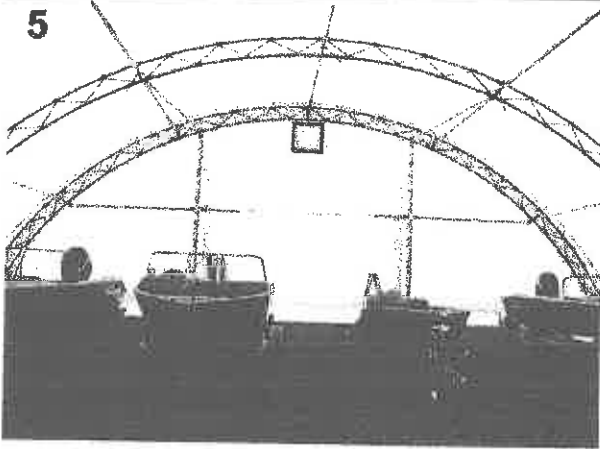
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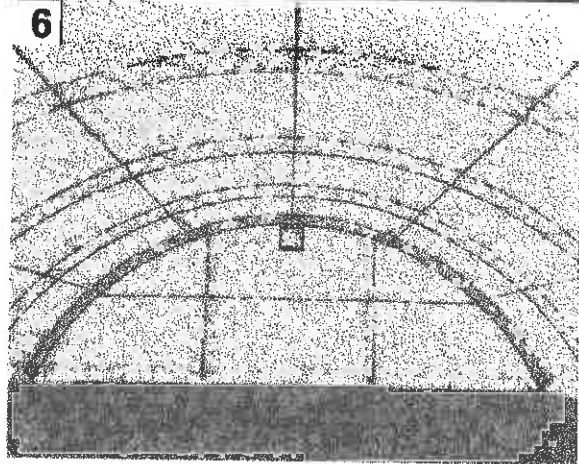
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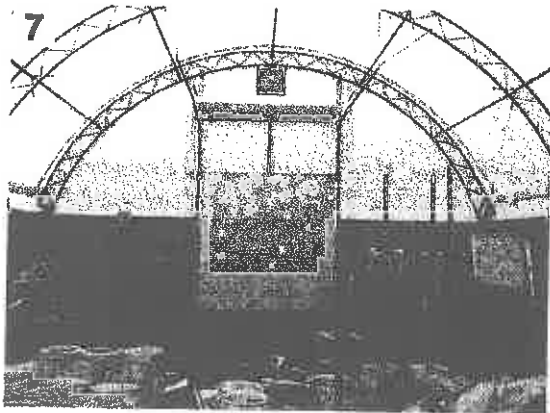
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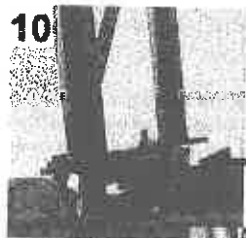
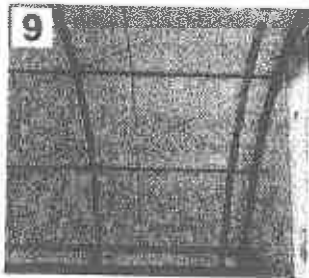
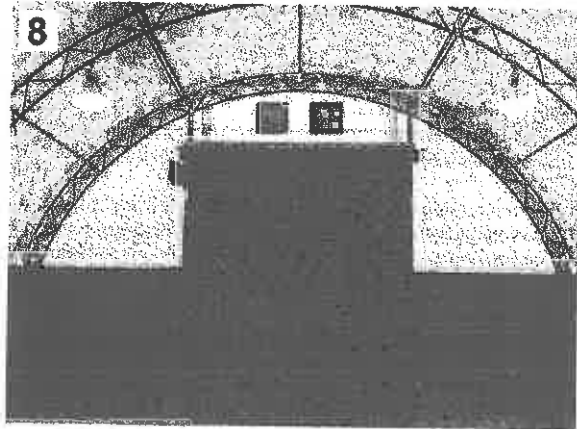
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31



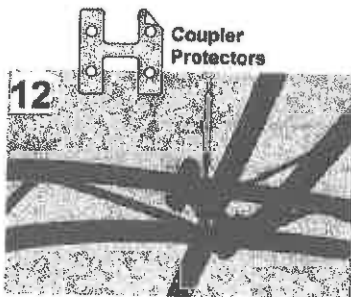
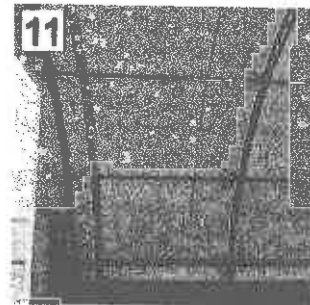
REQUIRED VIEWS



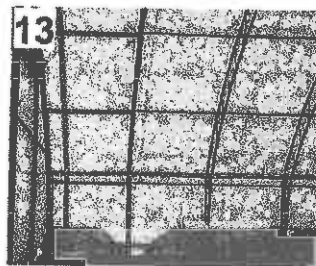
Must See
Swivel Bolt
Washer

Must See 2
Anchor Bolts

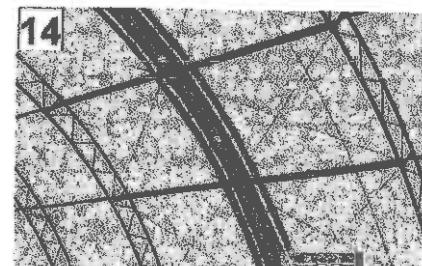
Must See 2
Threaded Rods



65
and
72



65 and 72 Building Leg Bracing



Mid-Building Bracing



LIMITED WARRANTY

SCOPE OF LIMITED WARRANTY

Only the building components manufactured by BRITESPAN Building Systems Inc. and described in this agreement are warranted for manufacturer defects to the building owner.

This warranty is only valid if and when:

- i) Warranty has properly been registered by an authorized BRITESPAN Building Systems Inc. dealer as per the instruction in the building kit and,
- ii) BRITESPAN Building Systems Inc. receives written notice and proof of claim (photos where possible) of any manufacturers defects during the period of warranty coverage.

Resolve of the structural defect(s) may be through the supply of new, used or rebuilt parts, or on-site repair, at the option of BRITESPAN Building Systems Inc. If BRITESPAN Building Systems Inc. chooses to repair or replace the defective product or component, BRITESPAN Building Systems Inc. shall be allotted reasonable time to do so.

This warranty includes the explicit warranty of BRITESPAN Building Systems Inc. There are no other warranties expressed or implied. This warranty is made and is not to be replaced by any warranties of marketability or suitability for a particular purpose. Warranty specifications are applicable to units sold and erected in Canada and the United States only. Warranty may vary outside of those areas. Please contact your local authorized BRITESPAN Building Systems Inc. representative for more details.

WARRANTY REGISTRATION

Follow all of the instructions for the online warranty registration found in this manual and at www.britespanbuildings.com. All warranty registrations must be submitted for registration review within 60 days of building installation. A certificate of warranty will be issued to your local authorized BRITESPAN Building Systems Inc. representative once all of the requirements have been met for registration and approved by BRITESPAN Building Systems Inc.

A warranty certificate may be withheld if the building or any components are not assembled in accordance with the installation procedures indicated in the installation manual. A warranty certificate will be issued upon correction of identified deficiencies supported with new photographs to complete the verification.

If the building changes ownership, the new owner must apply for a warranty transfer to assume remaining years of warranty on the existing structure(s). Contact your local authorized BRITESPAN Building Systems Inc. dealer to obtain a transfer of warranty package. A one-time per transfer fee may apply.

STANDARD LIMITED WARRANTY COVERAGE PERIODS:

| TABLE 3-1: STANDARD PRO-RATED WARRANTY COVERAGE PERIOD (YEARS) | |
|--|-------------------|
| COMPONENT | ATLAS18 / ATLAS24 |
| MAIN STRUCTURE COVER (NON-FR) ⁽⁴⁾ | 16 |
| MAIN STRUCTURE COVER (FR) ⁽⁴⁾ | 10 |
| END FABRIC (NON-FR) ⁽⁵⁾ | 3 |
| END FABRIC (FR) ⁽⁵⁾ | 3 |
| MAIN STEEL FRAMEWORK ⁽²⁾ | 5 |
| END STEEL FRAMEWORK (HSS) ⁽³⁾ | 5 |

* Building needs to be installed by factory trained, approved and qualified personnel.



LIMITED WARRANTY

NOTES ON LIMITED WARRANTY COVERAGE PERIODS

- All repair or replacement costs are pro-rated as per table 3-1 on page one of this document. (1)
- Consists of main building trusses, purlins and manufactured brackets (2)
- Consists of vertical columns, horizontal members, and manufactured brackets. Does not include cables or fasteners. (3)
- Consists of main building cover panels only. Does not include any fastening system components (4)
- Consists of end enclosure panels only (standard FR & non-FR fabrics only). Does not include any fastening system components. End enclosure panels must be properly supported by a BRITESPAN Building Systems Inc. end support system or an alternative system designed and engineered to match the end panel fastening system. The alternative system must also meet site wind load and building safety requirements as per engineer requirements. (5)

STANDARD TERMS OF LIMITED WARRANTY COVERAGE

Should any components be found to have manufacturer's defects under normal use, the defect(s) will be repaired or the components replaced, at the discretion of BRITESPAN Building Systems Inc. The building owner will be responsible for the cost of the repair or replacement parts pro-rated per year following the original purchase date, plus the cost of delivery and installation of replacement parts, if required. All replacement parts are F.O.B. Lucknow, Ontario, Canada. Any parts requiring replacement under this warranty are subsequently warranted only for the remaining time period of the unexpired portion of the warranty that is applicable to the original product.

Due to continual product development, over time certain fabric colours or steel components may become unavailable. In those incidents, BRITESPAN Building Systems Inc. reserves the right to substitute replacement components with those that are comparable in function, quality, and price to the original. BRITESPAN Building Systems Inc. is not responsible nor liable if the replacement component varies in appearance from the original.

LIMITS AND RELEASE OF LIABILITY

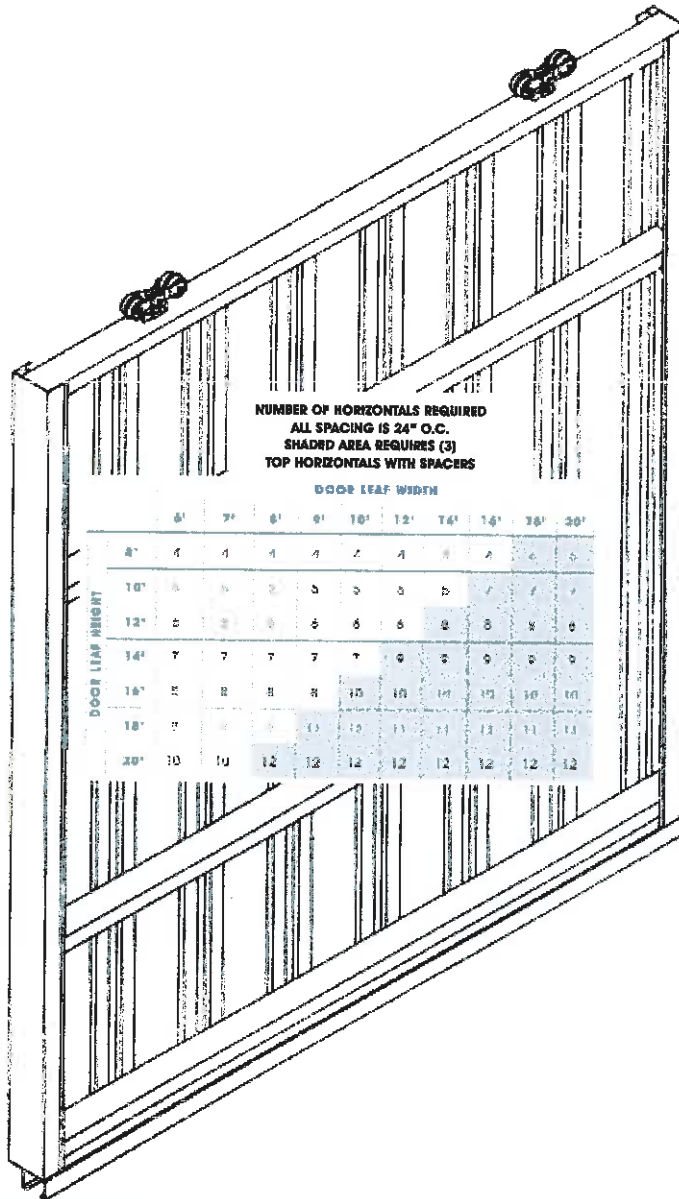
This warranty does not apply to defects or damages resulting from a) improper installation and/or installation that is not in accordance with BRITESPAN Building Systems Inc. installation manuals and procedures; b) improper or inadequate maintenance of the structure; c) any modification or alteration of the product; d) misuse, neglect, or abuse of the product; e) accident; f) repair or alteration by an unauthorized BRITESPAN Building Systems Inc. dealer; g) integration of products or accessories not manufactured specifically for use in a BRITESPAN Building Systems Inc.; h) exposure to corrosive elements; i) corrosion resulting from structure applications, environment within the structure, and/or insufficient maintenance or any cause other than a defect in an item's described corrosion protection; j) use of abrasive cleaning methods, chemicals, or solvents; k) exposure to conditions in excess of, or not meeting, as the case may be, wind and snow load specifications for building model; l) design of foundation and/or installation and/or deficiency in the foundation; m) product upgrades; n) product recall; o) normal wear and tear; p) wear caused by multiple installations; q) storage and/or handling of building components; r) an act of God; s) This warranty does not apply to cosmetic defects or deterioration, including discoloration.

BRITESPAN Building Systems Inc. will not be liable for any damages incurred during or as a result of installation of a BRITESPAN Building Systems Inc. product, whether or not in accordance with the installation instructions. In no event will BRITESPAN Building Systems Inc., any distributor, or the selling dealer be liable for any direct, indirect, special, incidental, or consequential damages (including loss of profit, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if BRITESPAN Building Systems Inc., its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. By registering for and taking benefit of the warranty, the building owner expressly releases and discharges BRITESPAN Building Systems Inc., all distributors, and all dealers from all claims, causes of action, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the building owner ever had, now has, or may have by reason of the assembly, erection, use and/or operation of any BRITESPAN Building Systems Inc. All references to building owners, BRITESPAN Building Systems Inc., all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

BRITESPAN Building Systems Inc. and its authorized dealers are independent businesses; authorized dealers are not agents or legal representatives of BRITESPAN Building Systems Inc. Authorized dealers have no right or authority to assume or create any legal obligation or responsibility, express or implied, on behalf of BRITESPAN Building Systems Inc., or to bind BRITESPAN Building Systems Inc. in any manner whatsoever. BRITESPAN Building Systems Inc. shall have no liability for any acts, errors, omissions, workmanship, supplies, advice, representations or misrepresentations of any authorized dealer.

BIGG FRAME

ASSEMBLY INSTRUCTIONS



**APPROXIMATE DOOR LEAF WEIGHT (LBS.) WITH 29 GAUGE STEEL PANEL
ALL PACKAGES INCLUDE #235 STEEL GIRT 2 FT. ON CENTER**

| | | WIDTH | | | | | | |
|--------|-----|-------|-----|-----|-----|-----|-----|-----|
| | | 8' | 10' | 12' | 14' | 16' | 18' | 20' |
| HEIGHT | 8' | 107 | 130 | 168 | 194 | 220 | 292 | 349 |
| | 10' | 124 | 150 | 192 | 221 | 291 | 348 | 385 |
| | 12' | 151 | 183 | 215 | 283 | 341 | 404 | 447 |
| | 14' | 167 | 215 | 284 | 327 | 391 | 460 | 535 |
| | 16' | 205 | 274 | 323 | 372 | 441 | 516 | 596 |
| | 18' | 232 | 307 | 362 | 416 | 492 | 572 | 658 |
| | 20' | 279 | 340 | 400 | 461 | 542 | 605 | 720 |

PACKAGES IN THE SHADED AREA INCLUDE (3) TOP HORIZONTALS

DOOR GRID ASSEMBLY

Doors should be assembled in a flat area. The horizontals are to be equally spaced. The number required per door and spacing is show in the table. The inside face of the door frame should be assembled first.

After laying out the horizontal members, locate and drill two (2) 17/32 min.diam.holes in the top horizontal. Locate each trolley hole at dimension "A" from the end and 1" from the inside face. See chart for recommended dimension "A".

With the top,intermediate & bottom horizontals properly fitted & spaced in the verticals, secure the grid at each end of the four corners using one (1) #8 self-drilling, self-tapping fastener. The fasteners should be located in the extruded pilot groove as shown in **figure 3**.

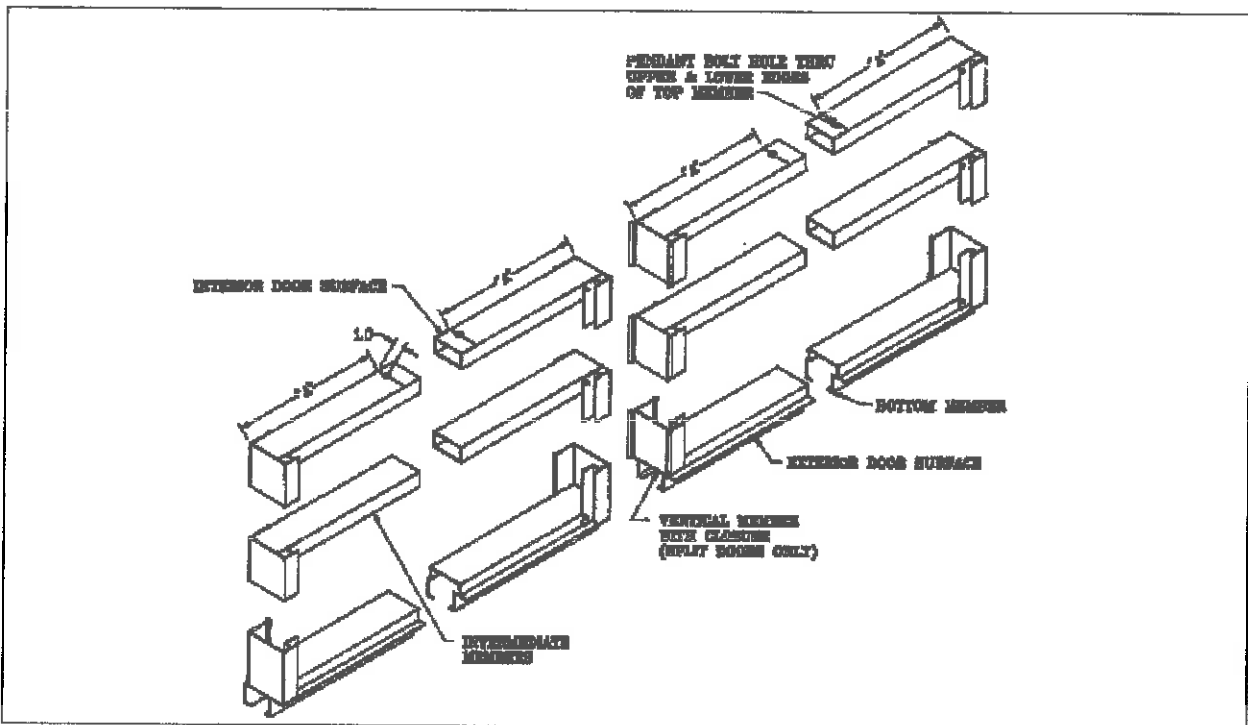


FIGURE 1

| DOOR LEAF WIDTH | 6' | 7' | 8' | 9' | 10' | 12' | 14' | 16' | 18' | 20' |
|-----------------|----|----|----|----|-----|-----|-----|-----|-----|-----|
| DIM. "A" | 1' | 1' | 1' | 1' | 1' | 2' | 2' | 2' | 2' | 2' |

FIGURE 2

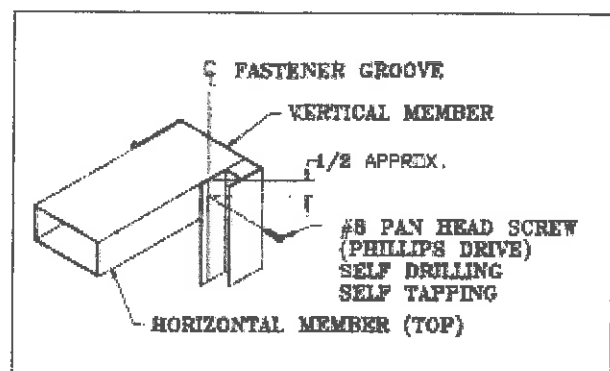


FIGURE 3

SQUARE THE DOOR GRID

After squaring, secure the grid with a second fastener at each end of the four corners locating them as show in **figure 4**.

Carefully turn the door grid over, recheck for squareness & repeat the fastening-procedures.

Secure all intermediate horizontals with *4) screws/joint (2 per side) See **figure 5**.

NOTE: If installing the option 2" x 4" wood members, simply drive nails or screw thru the extruded grooves.

Install the wood members in the same manner as described for the metal horizontal members. Refer to **figure 6** and **figure 7**.

Apply sheeting per sheeting manufacturer's recommendations.

When sheeting door, the sheeting tucks between the built-in flashing and trip strip of the vertical members.

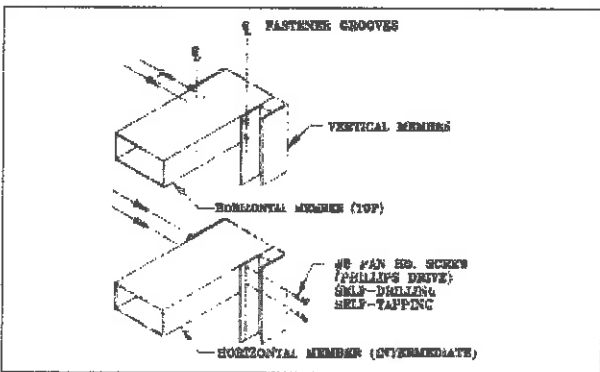


FIGURE 4

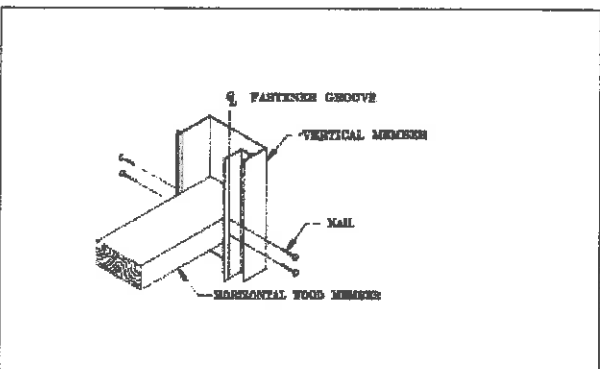


FIGURE 6

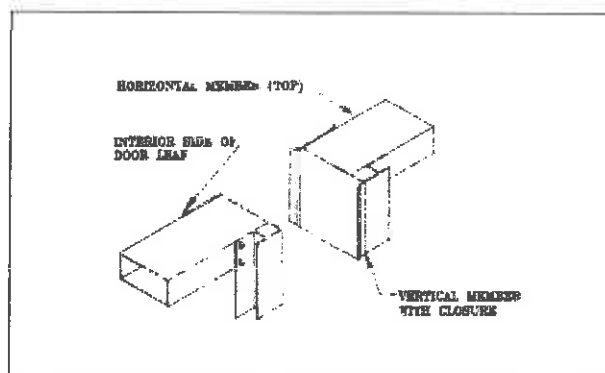


FIGURE 5

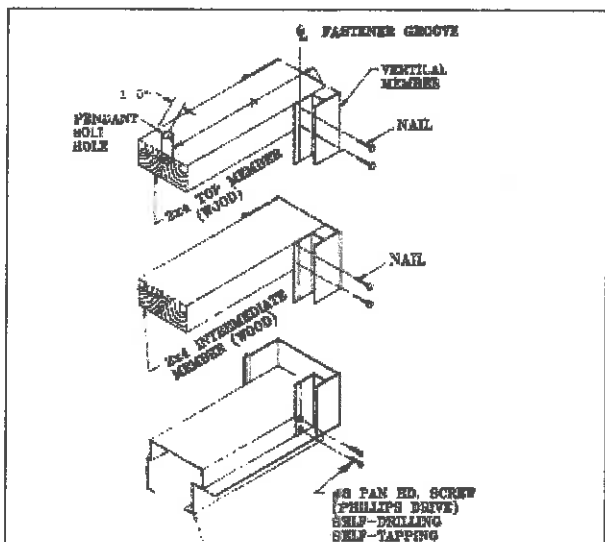


FIGURE 7

TROLLEY MOUNTING INSTRUCTIONS

Insert the trolley mounting bolt into the door grid top horizontal. Install the trolleys and adjust the nuts on the pendant bolts until there is approximately one inch between the trolley bolt head and the door grid top horizontal. **See figure 8.**

INSTALL CANNONBALL TRACK PER SPECIFICATION SHEET.

After hanging doors and adjusting to required height, insert sheet metal screws through the washered nuts into the horizontal member as shown in **figure 8**. When using wood horizontals, use a nail as shown in **figure 9**. Adjust the offset pendant bolts so door hangs flush against side of building. Tighten the split lock nuts on the offset pendant bolts to lock trolleys in operating position.

Slip the larger link on the end of the chain over the snigger rod and insert snigger rod into the rod support. Secure the opposite end to vertical member using (1) 1/4" fastener and nut as shown. **See figure 10.**

CENTER MOUNTED SNIGGER FOR WOOD HORIZONTALS

Select a horizontal door member that is at a convenient height. Drill one 9/32 diameter hole in the vertical door member. (**See figure 10**). Slip rod support on straight end of snigger rod and properly position assembly to determine proper location of rod support. Fasten rod support with (2) ring nails as shown.

Install the second half of the snigger rod in the other door, following the above procedures except that no chain link is put on the rod.

Attach the "S" hook to the chain.

To latch the two doors together, merely hook the "S" hook onto the snigger rod as shown. The more the door rattles, the tighter the latch becomes. After making certain the "S" hook is in the proper link (latched chain should be about 6" from top of horizontal member), close the "S" hook slightly so it will not become detached from the chain. **See figure 11.**

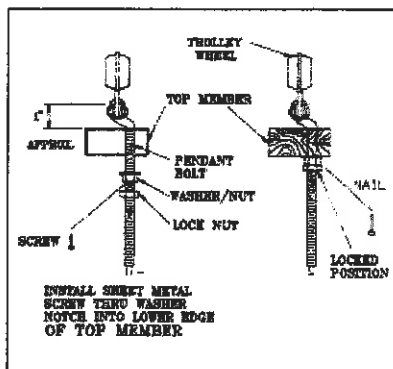


FIGURE 8 & 9

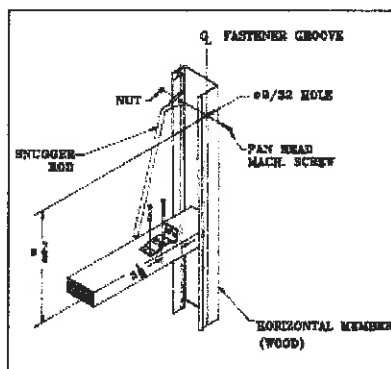


FIGURE 10

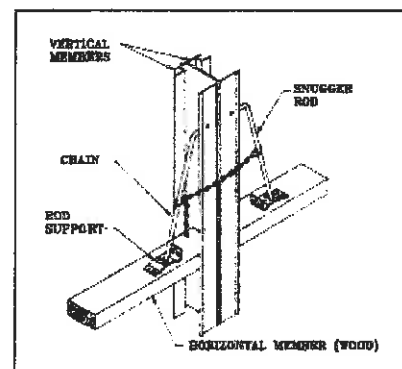


FIGURE 11

CENTER MOUNTED SNUGGER FOR METAL HORIZONTALS

Select a horizontal door member that is at a convenient height and drill (1) 17/32" diameter hole as shown. Next, drill (1) 9/32" diameter hole in the vertical door member. **See figure 12.**

Slip the larger link on the end of the chain over the snugger rod, and insert snugger rod into the 17/32" hole in the horizontal door member. Secure opposite end of snugger rod to vertical member using (1) 1/4" fastener and nut. **See figure 13.**

Install the second half of the snugger rod in the other door, following the above procedure except that no chain link is put on the rod.

Attach the "S" hook to the chain.

To latch the two doors together, merely hook the "S" hook onto the snugger rod as shown. The more the door rattles, the tighter the latch becomes. After making certain the "S" hook is in the proper link (latched chain should be about 6" from top of horizontal member), close the "S" hook slightly so it will not become detached from chain. **See figure 13.**

SIDE MOUNTED SNUGGER FOR METAL HORIZONTALS

See pages 9 & 10 for other styles of side latches available.

Select a horizontal door member that is at a convenient height and drill (1) 17/32" diameter hole as shown. Next, drill (1) 9/32" diameter hole in the vertical door member. Refer to **figure 14** for hole location.

Insert snugger rod into the hole in the horizontal door member. Secure opposite end of snugger rod to the vertical member using (1) 1/4" fastener and nut as shown in **figure 15.**

Before installing the second half of the snugger to the face of the door jamb, close the door. (Door must have a center stop, or otherwise held stationary.) Secure rod support "A" to door jamb so as to be level with the horizontal door member as shown in **figure 16.** (Rod support fasteners are not supplied.) Slip large link on the end of the chain over the rod and insert rod into rod support "A". Put rod support "B" on opposite end of rod. Offset rod support "B" 1.0" from rod support "A" as shown. Secure support "B" to door jamb.

After making certain the "S" hook is in the proper link (latched chain should be about 6" from the top of horizontal member), close the "S" hook slightly so it will not become detached from chain.

SIDE MOUNTED SNUGGER FOR METAL HORIZONTALS

See pages 9 & 10 for other styles of side latches available.

Select a horizontal door member that is at a convenient height and drill (1) $9/32"$ diameter hole in the vertical door member. Refer to **figure 17** for hole location.

Slip rod support on straight end of snigger rod and properly position assembly to determine proper location of rod shank. Fasten rod support with (2) ring nails as shown. Slip the large link on the end of the chain over the snigger rod and insert snigger rod into the rod support. Secure the opposite end to vertical member using (1) $1/4"$ fastener and nut as shown. **See figure 17.**

Before installing the second half of the snigger to the face of the door jamb, close the door. (Door must have a center stop, or otherwise held stationary.) Secure rod support "A" to door jamb so as to be level with the horizontal door member as shown in **figure 18**. (Rod support fasteners are not supplied). Slip large link on the end of the chain over the rod and insert rod into rod support "A". Put rod support "B" on opposite end of rod. Offset rod support "B" $1.0"$ from rod support "A" as shown. Secure support "B" to door jamb.

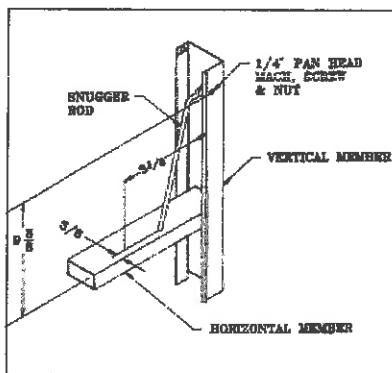


FIGURE 12

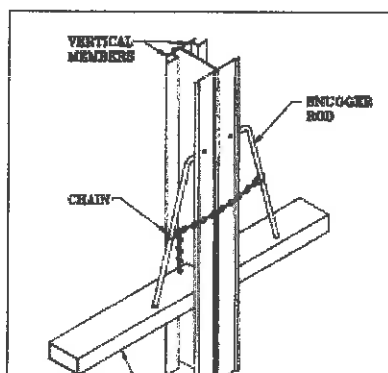


FIGURE 13

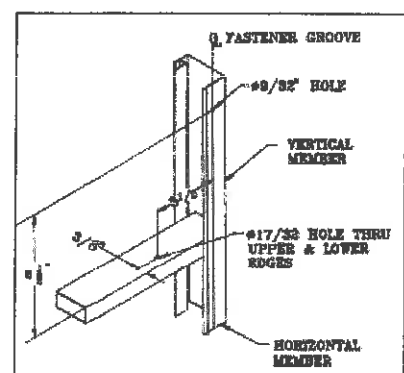


FIGURE 14

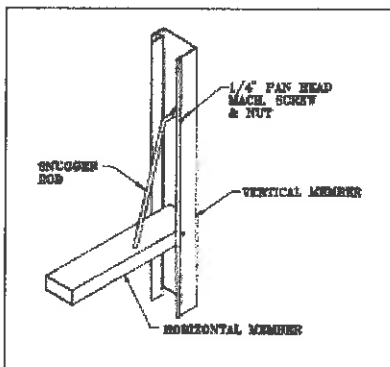


FIGURE 15

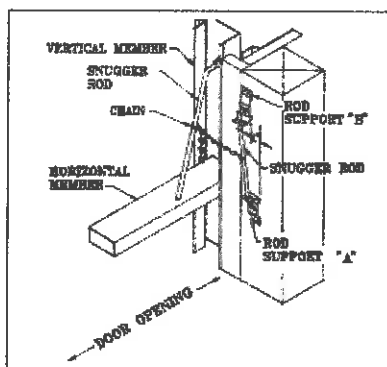


FIGURE 16

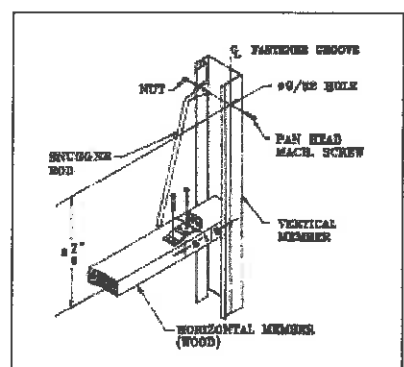


FIGURE 17

NOTE: For proper closure each bottom horizontal should be cut or notched $1/16$ " short for the center verticals to compensate for the center stop thickness.

CENTER STOP ASSEMBLY

Fasten one half of the guide with $3/8$ " lag bolts. Locate the "Z" stop on the center leg of the unfastened half as show in **figure 20**.

After making certain the "S" hook is in the proper link (latched chain should be about 6" from top of horizontal member), close the "S" hook slightly so it will not become detached from chain. **See figure 18**.

CENTER DOOR GUIDE & STOP

Center guide & stop may be mounted to a 6" x 6" P.T. post or imbedded in concrete. Fasteners for mounting center guide are NOT included.

Secure half with lags. Finally attach "L" hold down to "Z" with $3/8$ " carriage bolts as shown in **figure 21**.

Locate guide at the center point of door opening, the door leafs to engage as shown in bottom horizontal.

After the guide is in place, additional adjustment is possible through the vertical adjustment on the door trolleys. This adjustment should be used only after the center guide is rigidly in place.

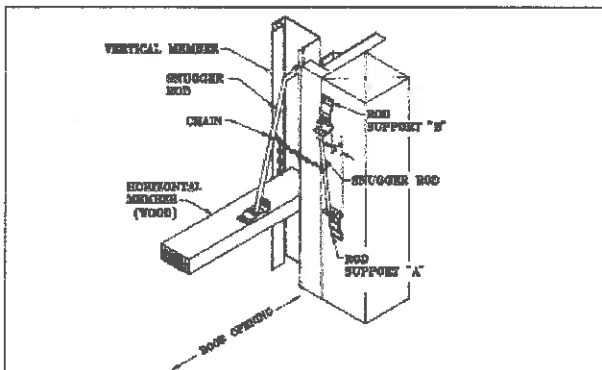


FIGURE 18

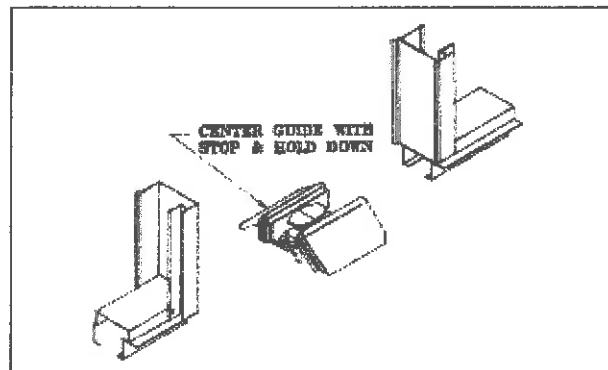


FIGURE 19

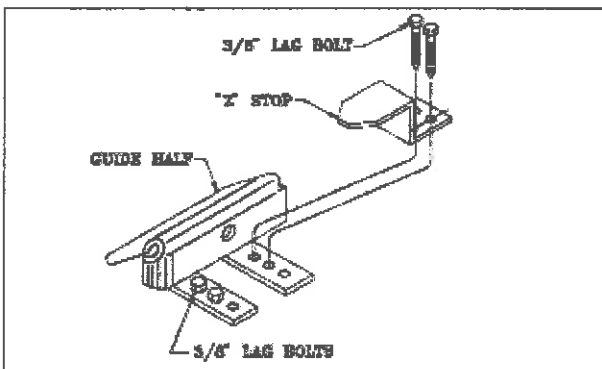


FIGURE 20

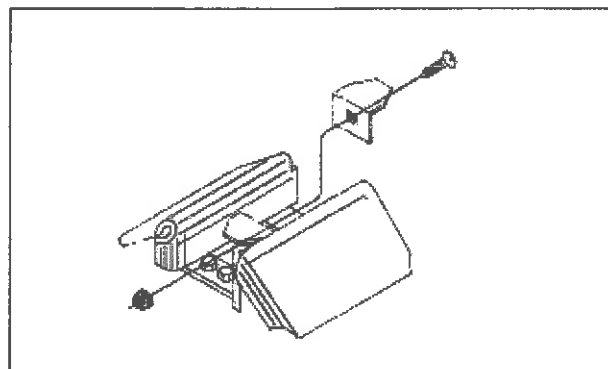


FIGURE 21

STAY GUIDE II INSTALLATION

INSTALLATION INSTRUCTIONS:

With the sliding door panel in open position, make a pencil line on face of building at closed position. Turn guide rail upside down so that slots are visible. Line up one end of rail with edge of door opening & mark slot location on wall, 1" above pencil line. **See figure 22.**

Use alternate slot location in case bracket interferes with siding rib. Install wall brackets with lag screws provided. **(See figure 23).** Make sure nailer holes are in vertical leg of bracket.

Bolt guide rail to brackets, finger tight, with carriage bolts & lock nuts. **(See figure 24).**

Make final adjustment by opening door & checking clearances. Tighten all bolts & nails through holes provided in brackets.

Assemble end stop & hold down bracket to wall bracket as show in **figure 25.** Do NOT tighten hardware.

With door in closed position, locate wall bracket flush with door opening as shown in **figure 25.** NOTE: Additional blocking may be required behind wall bracket to provide a flat mounting surface.

Attach wall bracket to building wall with lag bolt & nails similar to guide rail. Tighten flange nut AFTER final adjustment. **See figure 25.**

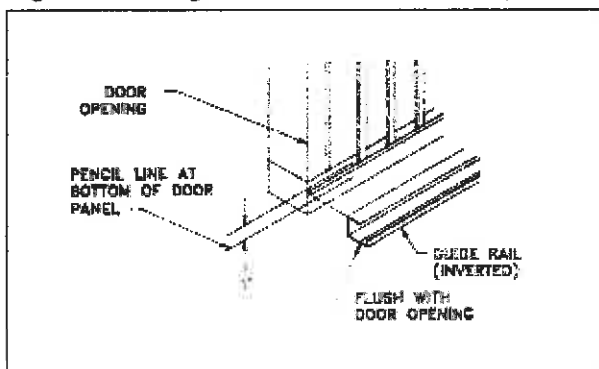


FIGURE 22

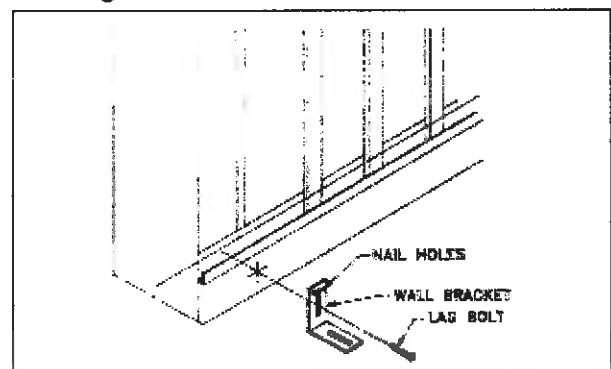


FIGURE 23

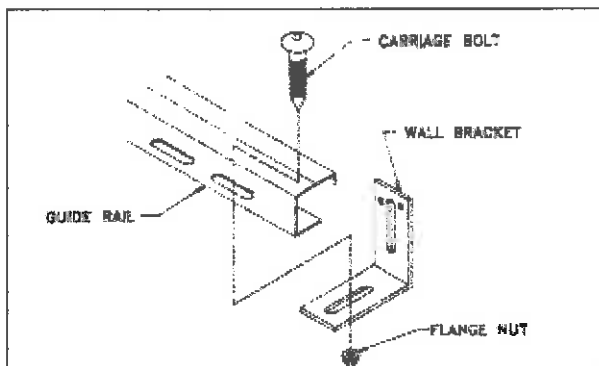


FIGURE 24

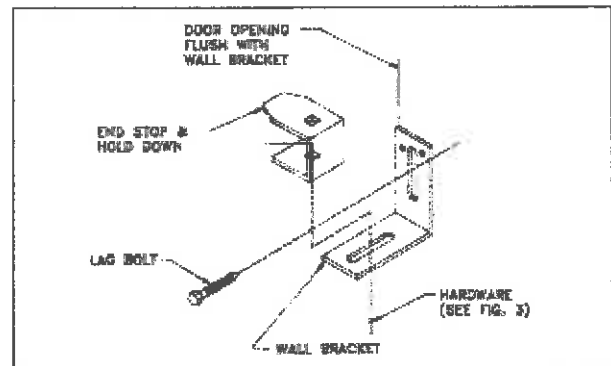


FIGURE 25

SIDE MOUNTED CAM LATCH FOR METAL HORIZONTALS

Select a horizontal door member that is at a convenient height. Align edge of vertical member with door jamb surface. Mount latch catch with the two legs toward the front of the door. Keep slot for hook in line with hook on latch. **(See figure 26)**. Latch catch should be installed prior to applying steel rib to sliding door frames. Attach main body of latch to door jamb, keeping latch hook parallel to top of latch catch mounted on the horizontal. With latch handle straight up - mount latch with end of hook in hole

SIDE MOUNTED JAMB LATCH FOR METAL HORIZONTALS

Select a horizontal door member that is at a convenient height. Align edge of vertical member with door jamb surface. Mount latch catch with the two legs toward the front of the door. Keep slot for hook in line with hook on latch. **(See figure 27)**. Latch catch should be installed prior to applying steel rib to hook parallel to top of latch catch mounted on the horizontal. With latch handle straight up or a little toward sliding door, mount latch with end of hook in hole on the latch catch. Pull handle back toward interior of building & down to secure door tight to jamb. Hook is threaded so it can be easily adjusted. reverse hook on body of latch to change from right or left-handed.

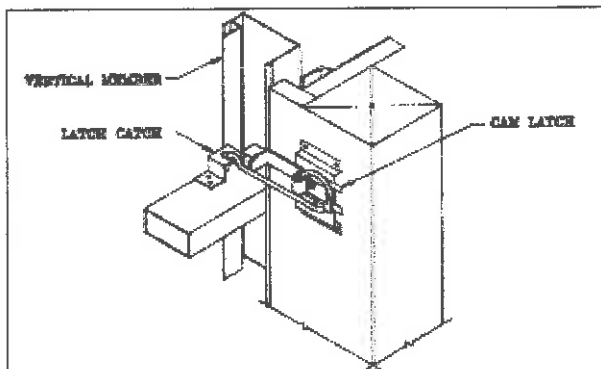


FIGURE 26

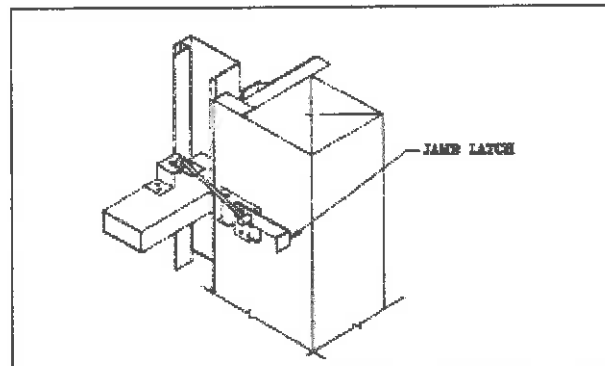


FIGURE 27

SIDE MOUNTED CAM LATCH FOR WOOD HORIZONTALS

Select a horizontal door member that is at a convenient height. Align edge of vertical member with door jamb surface. Mount latch catch with the two legs toward the front of the door. Keep slot for hook in line with hook on latch. (See figure 28). Latch catch should be installed prior to applying steel rib to hook parallel to top of latch catch mounted on the horizontal. With latch handle straight up - mount latch with end of hook in hole on the latch catch. Pull handle down toward door to secure door tight to jamb. Cam latch can be mounted either right or left-handed, just remove nut and turn hook over & reattach the nut. (This needs to be done before mounting to door jamb).

SIDE MOUNTED JAMB LATCH FOR WOOD HORIZONTALS

Select a horizontal door member that is at a convenient height. Align edge of vertical member with door jamb surface. Mount latch catch with the two legs toward the front of the door. Keep slot for hook in line with hook on latch. (See figure 29). Latch catch should be installed prior to applying steel rib to sliding door frames. Attach main body of latch to door jamb, keeping latch hook parallel to top of latch catch mounted on the horizontal. With latch handle straight up or a little toward sliding door, mount latch with end of hook in hole on the latch catch. Pull handle back toward interior of building & down to secure door tight to jamb. Hook is threaded so it can be easily adjusted. Reverse hook on body of latch to change from right or left-handed.

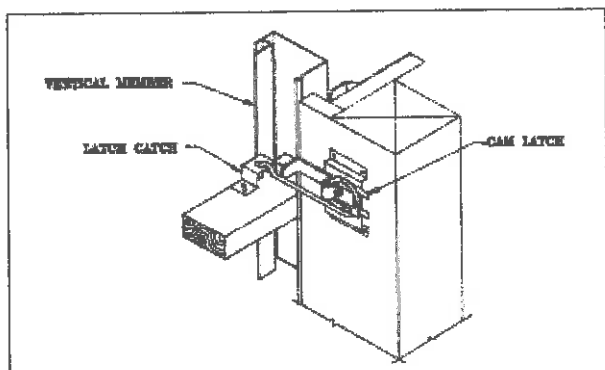


FIGURE 28

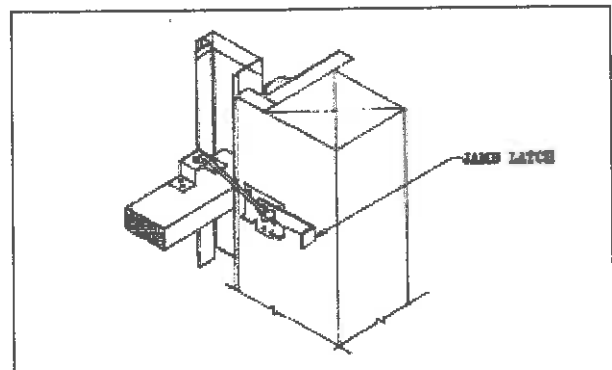


FIGURE 29

“Nobody does it better!”



555 Lawton Avenue, P.O. Box 835 | Beloit, Wisconsin 53512-0835
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