



(established in 1993)

9603 Sideroad 17, Unit #8, Erin, Ontario, N0B 1T0

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website www.ssc-canada.com

C of A with Professional Engineers Ontario (PEO) #100077127

Permit to Practice (APEGGA) P09649

Canadian Welding Bureau (CWB) certified W47.1 - Division 1

CSA A660 Certified

Specializing in the design, manufacture and construction of sand/salt storage buildings and conveying systems throughout Canada

Sand/Salt Storage Buildings

Prefabricated Wood Storage Domes

Storage Systems Construction Corp. is the primary installer of the Bulk-Store Structures pre-engineered and prefabricated wood storage dome. These domes are the most widely used and the most economical building for the permanent storage of sand, salt and bulk fertilizer. Available in sizes ranging from 50 feet to 150 feet in diameter, and built on cast in place concrete foundations ranging in height from 6'-0 to 20'-0 these domes can store up to 25,000 tonnes of material.

The unique floating ring foundation eliminates excavating and allows the domes to be built in areas with poor soil conditions that would prohibit the construction of conventional buildings.

The Bulk-Store Structures dome is made of entirely non corrosive materials (concrete, wood and asphalt shingles), they will not rust in the presence of fertilizer or salt. The prefabricated nature of the building also allows for a quick construction time.

Given your storage requirements Storage Systems Construction can construct a dome best suited to your needs.

In the last few years, Storage Systems Construction Corp. constructed domes at the following locations.

- Rocanville, Saskatchewan (Kentrax Transport) c/w conveyors
- Fort Saskatchewan, Alberta (NSC Minerals) c/w conveyor
- Dryden, Ontario (MTO Dinorwic)
- Oxford Station, Ontario (Agromart Group)
- Maxville, Ontario (MacEwen Agricentre)
- Pugwash, Nova Scotia (Canada Salt)
- Sant Laurent, Quebec (City of Montreal)
- Moncton, New Brunswick (City of Moncton)

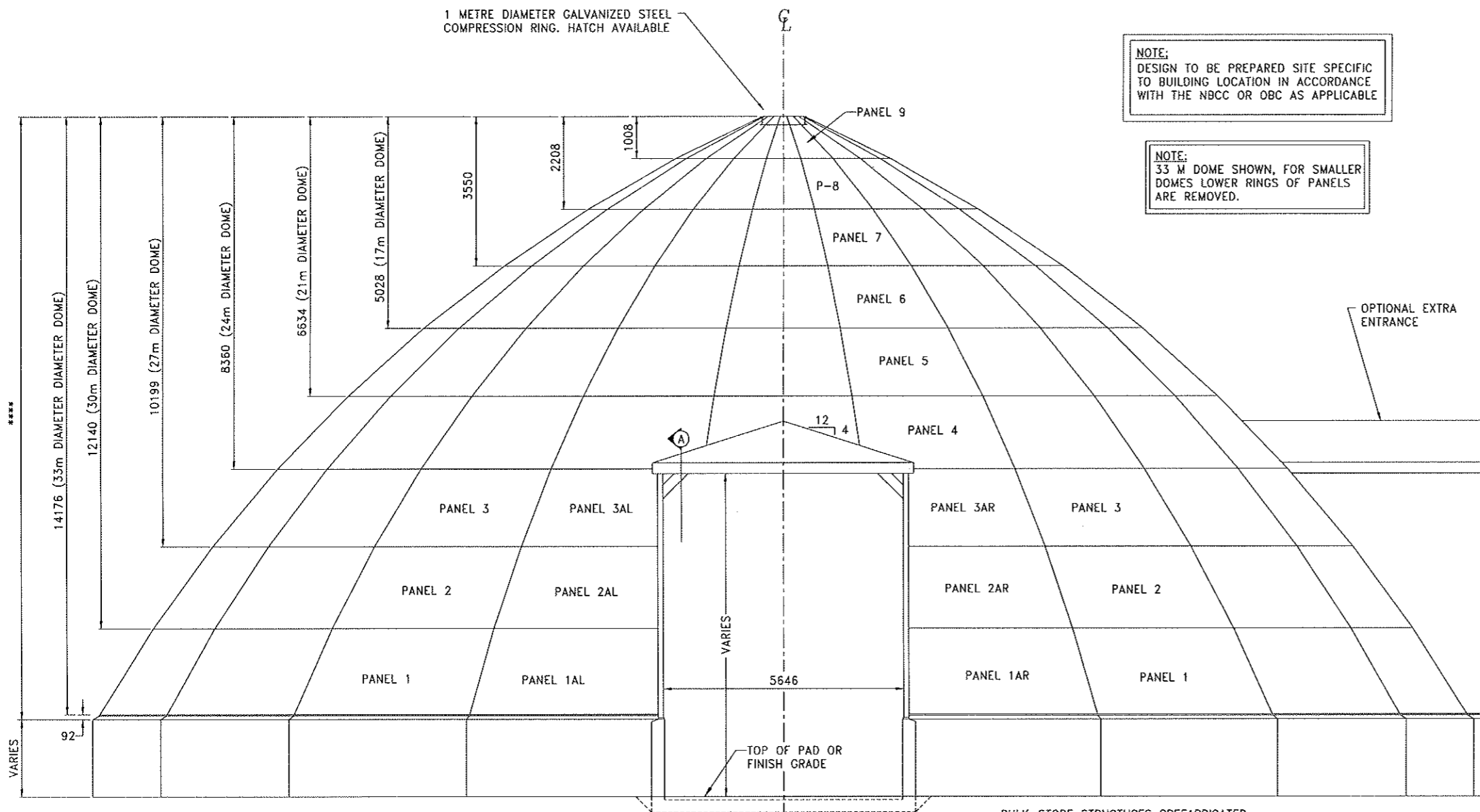
Prefabricated Wood Storage Domes (cont'd)

- Iroquois Falls, Ontario (Town of Iroquois Falls)
- Edmonton, Alberta (city of Edmonton)
- Bancroft, Ontario (Municipality of Hastings Highlands) c/w conveyors
- Port Carling, Ontario (District of Muskoka)
- Fort Saskatchewan, Alberta (NSC Minerals) c/w conveyor
- Camrose, Alberta (Cargill Aghorizons)
- Gogama, Ontario, (MTO New Liskeard)
- Mactier, Ontario (Township of Georgian Bay)
- Hensall, Ontario (Hensall Co-Op)
- Ignace, Ontario (MTO Thunder Bay)
- Sarnia, Ontario (Cargill Aghorizons)

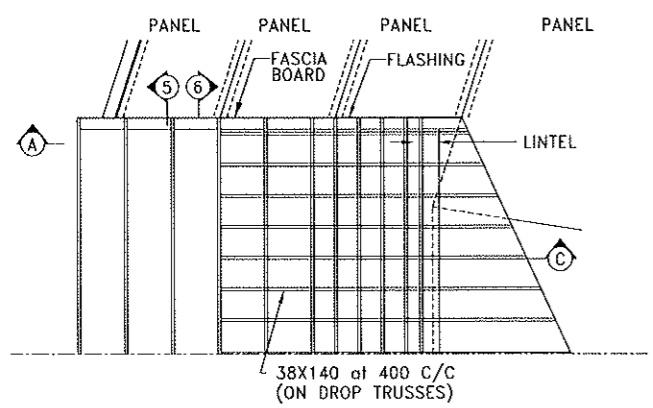
Contact us for the solution to your storage requirements

*Storage Systems Construction Corp
9603 Sideroad 17, Unit #8
Erin, Ontario, N0B 1T0
519-833-0054
519-833-0406 fax*

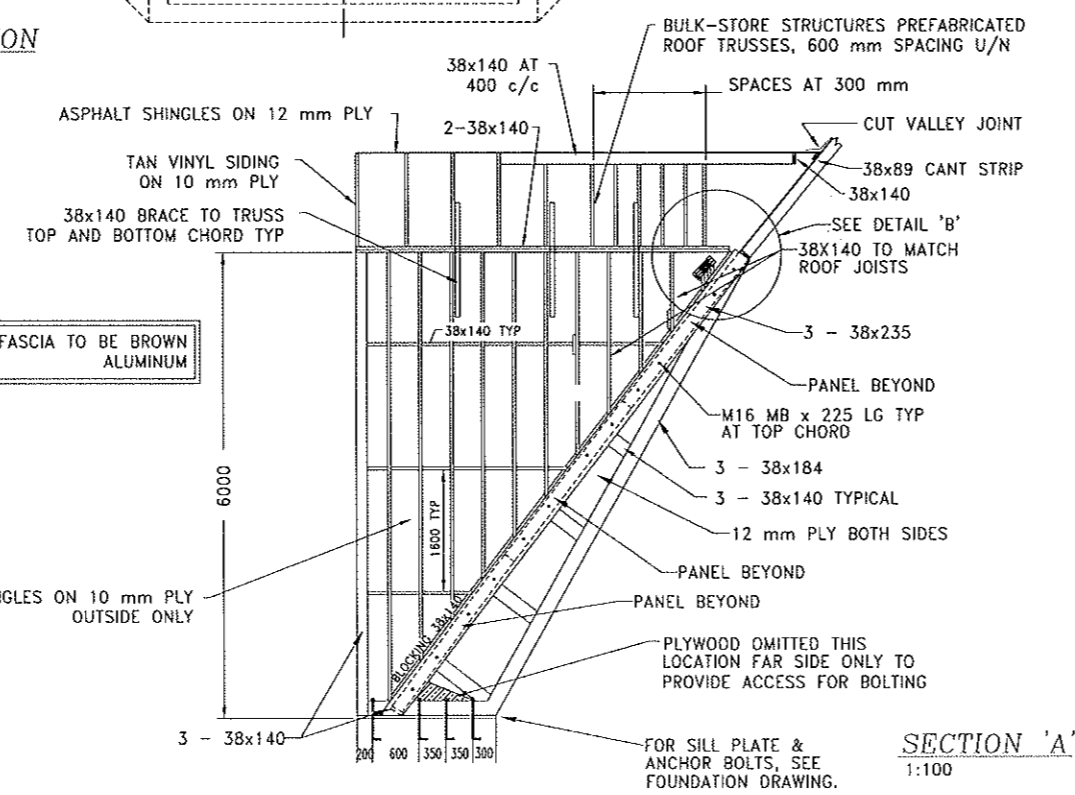
www.ssc-canada.com



ELEVATION
1:125



ENTRANCE ROOF FRAMING PLAN
1:100



SECTION 'A'
1:100

GENERAL NOTES - 4° DOME FAMILY

GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2010 EDITION OF THE NATIONAL BUILDING CODE OF CANADA (NBCC2010) AND WITH THE 2012 EDITION OF THE ONTARIO BUILDING CODE (OBC2012).
2. STORED MATERIALS SHALL NOT BE ALLOWED TO PILE UP AGAINST THE DOME OR THE ENTRANCE TRUSSES.
3. GROUND SNOW DRIFT SHALL NOT BE ALLOWED TO PILE UP AGAINST THE DOME OR THE ENTRANCE TRUSSES.
4. SAFEGUARD ALL EXISTING UNDERGROUND SERVICES, ADJACENT STRUCTURES AND FACILITIES AFFECTED BY THIS CONSTRUCTION.

FOUNDATION

1. FOUNDATION HAS BEEN DESIGNED FOR A MINIMUM PERMISSIBLE SOIL BEARING PRESSURE OF 150 KPa. OWNER TO ENSURE THIS CRITERIA IS MET.
2. CONCRETE IN THE FOUNDATION RING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF NOT LESS THAN 35 MPa, CONTAIN 4 TO 7% ENTRAINED AIR
3. REINFORCING STEEL SHALL BE BLACK OR EPOXY COATED DEFORMED BARS CONFORMING TO CAN/CSA G30.18, GRADE 400.
4. THE SUBGRADE UNDER THE DOME SHALL BE CONSTRUCTED OF GRANULAR MATERIAL, BE WELL DRAINED AND BE OF SUCH DEPTH AS TO PREVENT DIFFERENTIAL SETTLEMENT AND UNEQUAL FROST HEAVE.

TIMBER

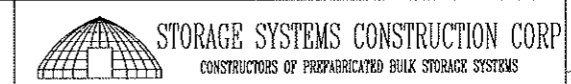
1. ALL LUMBER SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD GRADING RULES OF THE NATIONAL LUMBER GRADES AUTHORITY, AND TO CAN/CSA-086.1, "ENGINEERING DESIGN IN WOOD". ALL LUMBER SHALL BE DRY NO. 2 SPRUCE (SPF) OR BETTER.
2. PANEL FRAMING MEMBERS SHALL BE PLANED SO AS TO MEET FLUSH WITH PLYWOOD SHEATHING.
3. ALL PLYWOOD SHALL BE DOUGLAS FIR OR CANADIAN SOFTWOOD PLYWOOD (SPRUCED), CONFORMING TO THE REQUIREMENTS OF CSA 0121, "DOUGLAS FIR PLYWOOD" OR CSA 0151, "CANADIAN SOFTWOOD PLYWOOD". UNLESS OTHERWISE NOTED ALL PLYWOOD SHALL BE 12.5mm SHEATHING GRADE.
4. PLYWOOD SHEATHING SHALL BE GLUED TO THE PANEL FRAMING MEMBERS AND EITHER NAILED WITH 51mm SPIRAL NAILS OR STAPLED WITH 45mm X 16 GA. COATED STAPLES AT 150mm CENTRES MAXIMUM.
5. ADHESIVE SHALL BE A WATERPROOF PHENOL, RESORCINOL, OR PHENOL-RESORCINOL RESIN ADHESIVE CONFORMING TO THE REQUIREMENTS OF CSA 0112.7, "PHENOL AND RESORCINOL RESIN ADHESIVES FOR WOOD (ROOM AND INTERMEDIATE TEMPERATURE CURING) ADHESIVES SHALL BE STORED, MIXED, CURED, APPLIED, AND OTHERWISE HANDLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
6. PLYWOOD EDGES SHALL BE PLANED SO AS TO BUTT AGAINST THE EDGES OF ADJACENT WOOD.
7. ALL SILL PLATES IN CONTACT WITH THE CONCRETE FOUNDATION WALL SHALL BE PRESSURE PRESERVATIVE TREATED WITH CREOSOTE, PENTACHLOROPHENOL, ACA OR CCA IN ACCORDANCE WITH CAN/CSA-080 SERIES, "WOOD PRESERVATION" REQUIREMENTS FOR GROUND CONTACT.

HARDWARE

1. ALL BOLTS SHALL BE M16 X 120mm LONG MACHINE BOLTS CONFORMING TO THE REQUIREMENTS OF ASTM-A307, UNLESS OTHERWISE NOTED. ALL BOLTS SHALL BE EQUIPPED WITH 70mm X 70mm X 5mm PLATE WASHERS. BOLTS ARE REQUIRED TO BE INSTALLED IN ALL PRE-DRILLED PANEL HOLES.
2. STEEL SHALL CONFORM TO CAN3-G40.21.
3. NAILS SHALL CONFORM TO THE REQUIREMENTS OF CSA 8111, "WIRE NAILS, SPIKES AND STAPLES". NAILS USED IN THE CONSTRUCTION OF THE ENTRANCE CANOPY SHALL BE 89mm COMMON ROUND WIRE NAILS, COMMON SPIRAL NAILS OR EQUIVALENT.
4. NAILING OF THE ENTRANCE CANOPY SHALL BE IN ACCORDANCE WITH GOOD PRACTICE AND THE REQUIREMENTS OF TABLES 9.23.3.4 AND 9.23.3.5 OF THE NBCC AND OBC.

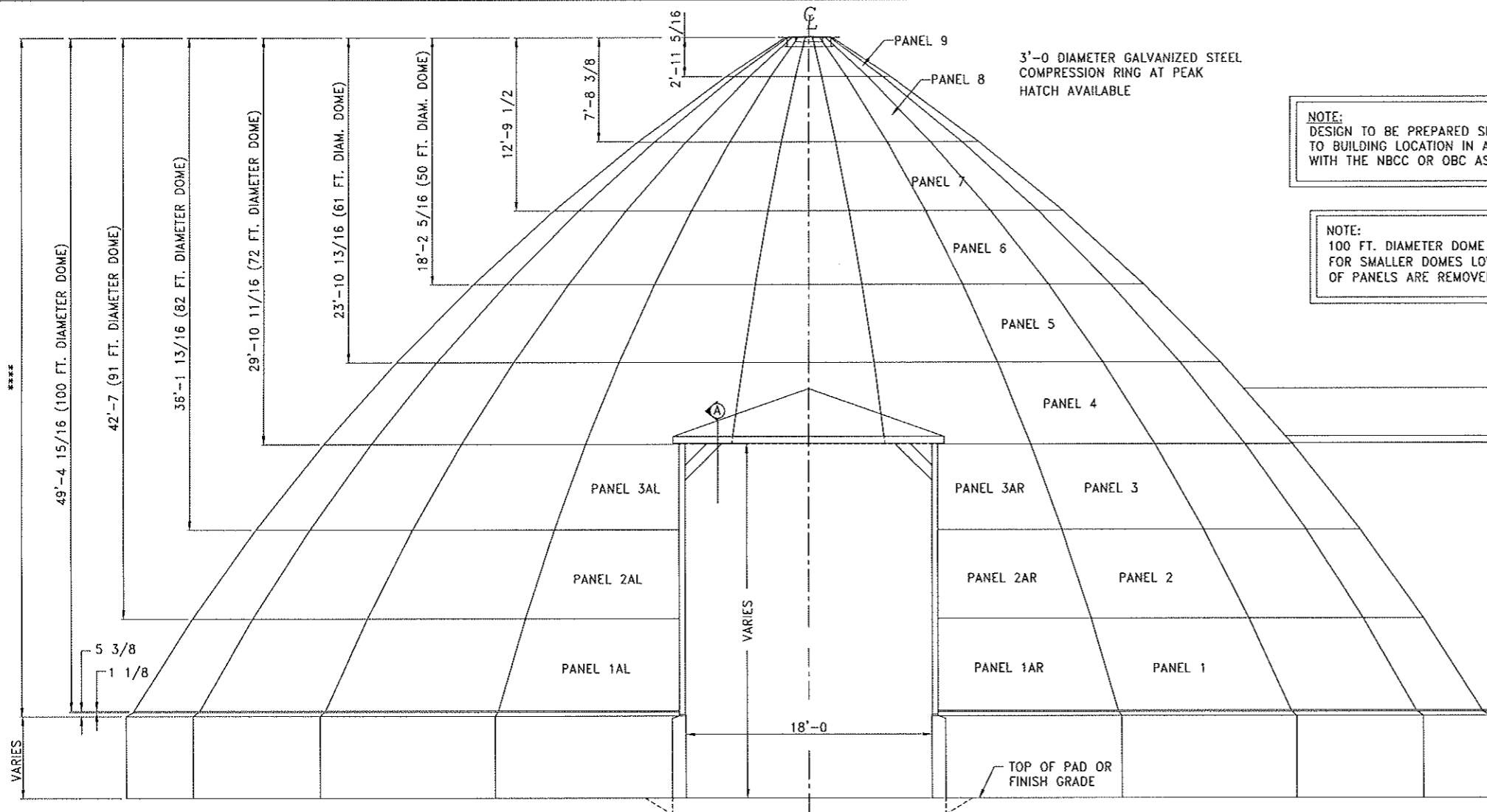
ROOFING

1. ROOFING SHALL BE 30 YEAR SELF-SEALING ASPHALT SHINGLES (COLOUR TO SUIT) INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS FLASHING TO BE ASPHALT, OR METAL AND INSTALLED WHERE NOTED.



METRIC DOME FAMILY
17m TO 33m DIAMETER DOMES
ELEVATION & GENERAL NOTES
INFORMATION PURPOSES

| |
|---------------------------|
| Designed: D.J. |
| Drawn: J.E.H. |
| Project Engineer: D.J. |
| Contract No.: **** |
| Drawing No.: INFO 1 |
| Scale: AS NOTED |
| Date: FEBRUARY 2016 |



NOTE:
DESIGN TO BE PREPARED SITE SPECIFIC TO BUILDING LOCATION IN ACCORDANCE WITH THE NBCC OR OBC AS APPLICABLE.

NOTE:
100 FT. DIAMETER DOME SHOWN. FOR SMALLER DOMES LOWER RINGS OF PANELS ARE REMOVED.

GENERAL NOTES

GENERAL

- 1.) ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2010 EDITION OF THE NATIONAL BUILDING CODE OF CANADA (NBC 2010) AND WITH THE 2012 EDITION OF THE ONTARIO BUILDING CODE (OBC 2012).
- 2.) STORED MATERIALS SHALL NOT BE ALLOWED TO PILE UP AGAINST THE DOME OR THE ENTRANCE TRUSSES.
- 3.) GROUND SNOW DRIFT SHALL NOT BE ALLOWED TO PILE UP AGAINST THE DOME OR THE ENTRANCE TRUSSES.
- 4.) SAFEGUARD ALL EXISTING UNDERGROUND SERVICES, ADJACENT STRUCTURES AND FACILITIES AFFECTED BY THIS CONSTRUCTION.

FOUNDATION

- 1.) FOUNDATION HAS BEEN DESIGNED FOR A MINIMUM PERMISSIBLE SOIL BEARING PRESSURE OF 150 KPA (3000 PSF). OWNER TO ENSURE THIS CRITERIA IS MET.
- 2.) CONCRETE IN THE FOUNDATION RING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF NOT LESS THAN 35 MPa AND CONTAIN 4% TO 7% ENTRAINED AIR.
- 3.) REINFORCING STEEL SHALL BE BLACK OR EPOXY COATED DEFORMED BARS CONFORMING TO CSA G30.18, GRADE 400.
- 4.) THE SUBGRADE UNDER THE DOME SHALL BE CONSTRUCTED OF GRANULAR MATERIAL, BE WELL DRAINED AND BE OF SUCH DEPTH AS TO PREVENT DIFFERENTIAL SETTLEMENT AND UNEQUAL FROST HEAVE.

TIMBER

- 1.) ALL TIMBER SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD GRADING RULES OF THE NATIONAL LUMBER GRADES AUTHORITY, AND TO CAN/CSA-086-1, "ENGINEERING DESIGN IN WOOD". ALL LUMBER SHALL BE DRY NO. 2 SPRUCE (SPF) OR BETTER.
- 2.) PANEL FRAMING MEMBERS SHALL BE PLANED SO AS TO MEET FLUSH WITH PLYWOOD SHEATHING.
- 3.) ALL PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO THE REQUIREMENTS OF CSA 0121 "DOUGLAS FIR PLYWOOD". UNLESS OTHERWISE NOTED ALL PLYWOOD SHALL BE 1/2 IN. SHEATHING GRADE.
- 4.) PLYWOOD SHEATHING SHALL BE GLUED TO THE PANEL FRAMING MEMBERS AND EITHER NAILED WITH 2 IN. SPIRAL NAILS OR STAPLED WITH 1-3/4 x 16 GA. COATED STAPLES AT 6 IN. CENTRES MAXIMUM.
- 5.) ADHESIVE SHALL BE A WATERPROOF PHENOL, RESORCINOL, OR PHENOL-RESORCINOL RESIN ADHESIVE CONFORMING TO THE REQUIREMENTS OF CSA 0112.7, "PHENOL AND RESORCINOL RESIN ADHESIVES FOR WOOD (ROOM AND INTERMEDIATE TEMPERATURE CURING)". ADHESIVE SHALL BE STORED, MIXED, CURED, APPLIED, AND OTHERWISE HANDLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 6.) PLYWOOD EDGES SHALL BE PLANED SO AS TO BUTT AGAINST THE EDGES OF ADJACENT PLYWOOD.
- 7.) ALL SILL PLATES IN CONTACT WITH THE CONCRETE FOUNDATION WALL SHALL BE PRESSURE PRESERVATIVE TREATED WITH CREOSOTE, PENTACHLOROPHENOL, ACA OR CCA IN ACCORDANCE WITH CSA 080, "WOOD PRESERVATION" REQUIREMENTS FOR GROUND CONTACT.

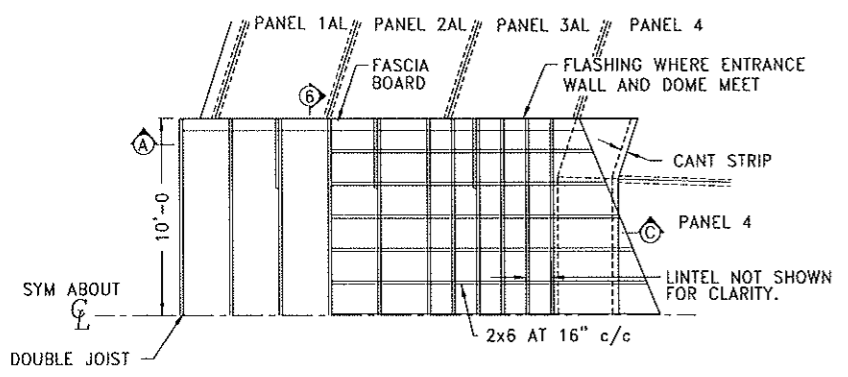
HARDWARE

- 1.) ALL BOLTS SHALL BE 5/8 IN. DIAMETER x 4-1/2 IN. LONG MACHINE BOLTS CONFORMING TO THE REQUIREMENTS OF ASTM-A307, UNLESS OTHERWISE NOTED. ALL BOLTS SHALL BE EQUIPPED WITH 2 3/4" x 2 3/4" x 3/16" PLATE WASHERS. BOLTS ARE REQUIRED TO BE INSTALLED IN ALL PRE-DRILLED PANEL HOLES.
- 2.) STEEL SHALL CONFORM TO CAN3-G40.21.
- 3.) NAILS SHALL CONFORM TO THE REQUIREMENTS OF CSA B111-1974, "WIRE NAILS, SPIKES AND STAPLES": NAILS USED IN THE CONSTRUCTION OF THE ENTRANCE CANOPY SHALL BE 3-1/2 IN. COMMON ROUND WIRE NAILS, COMMON SPIRAL NAILS OR EQUIVALENT.
- 4.) NAILING OF THE ENTRANCE CANOPY SHALL BE IN ACCORDANCE WITH GOOD PRACTICE AND THE REQUIREMENTS OF TABLES 9.23.3.4 AND 9.23.3.5 OF THE NATIONAL BUILDING CODE OF CANADA.

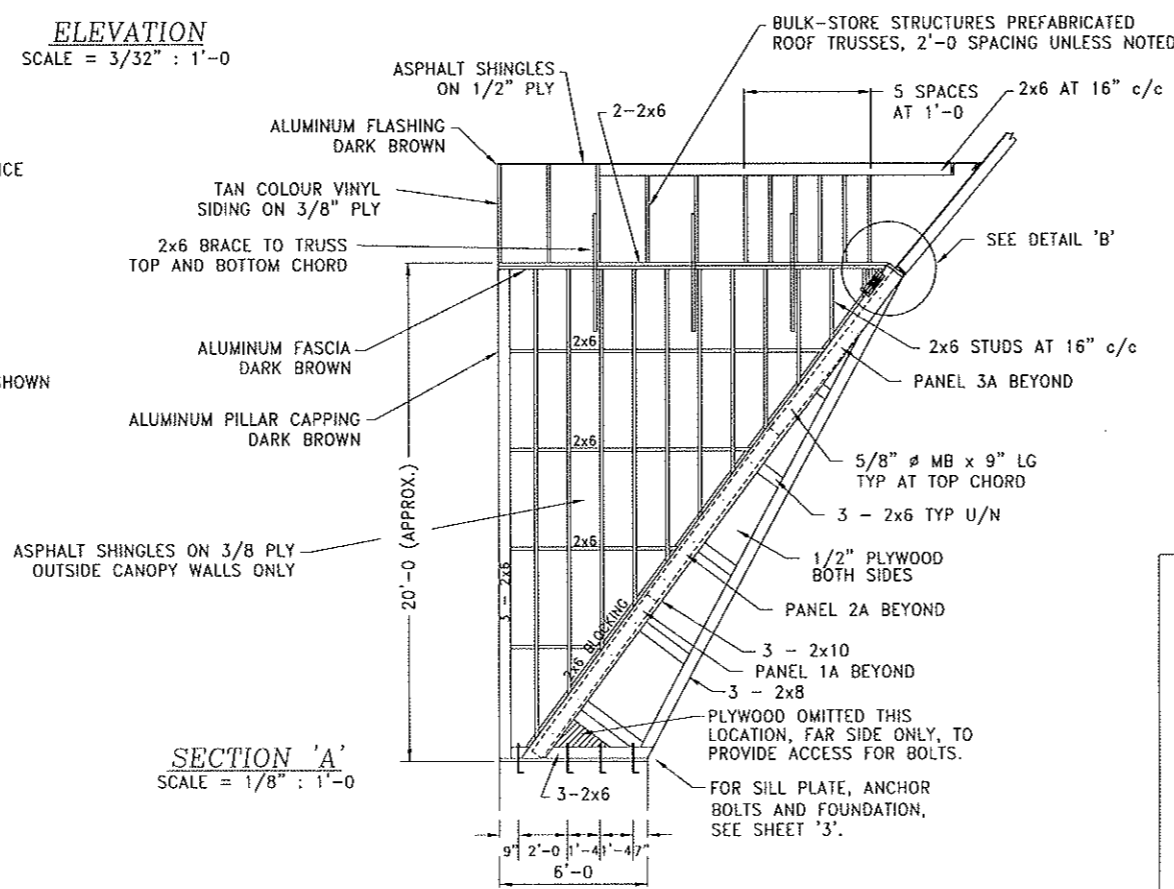
ROOFING

- 1.) ROOFING SHALL BE SELF SEALING 30 YEAR ASPHALT SHINGLES INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. FLASHING SHALL BE ASPHALT OR METAL AND INSTALLED WHERE NOTED.

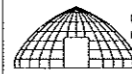
ELEVATION
SCALE = 3/32" : 1'-0"



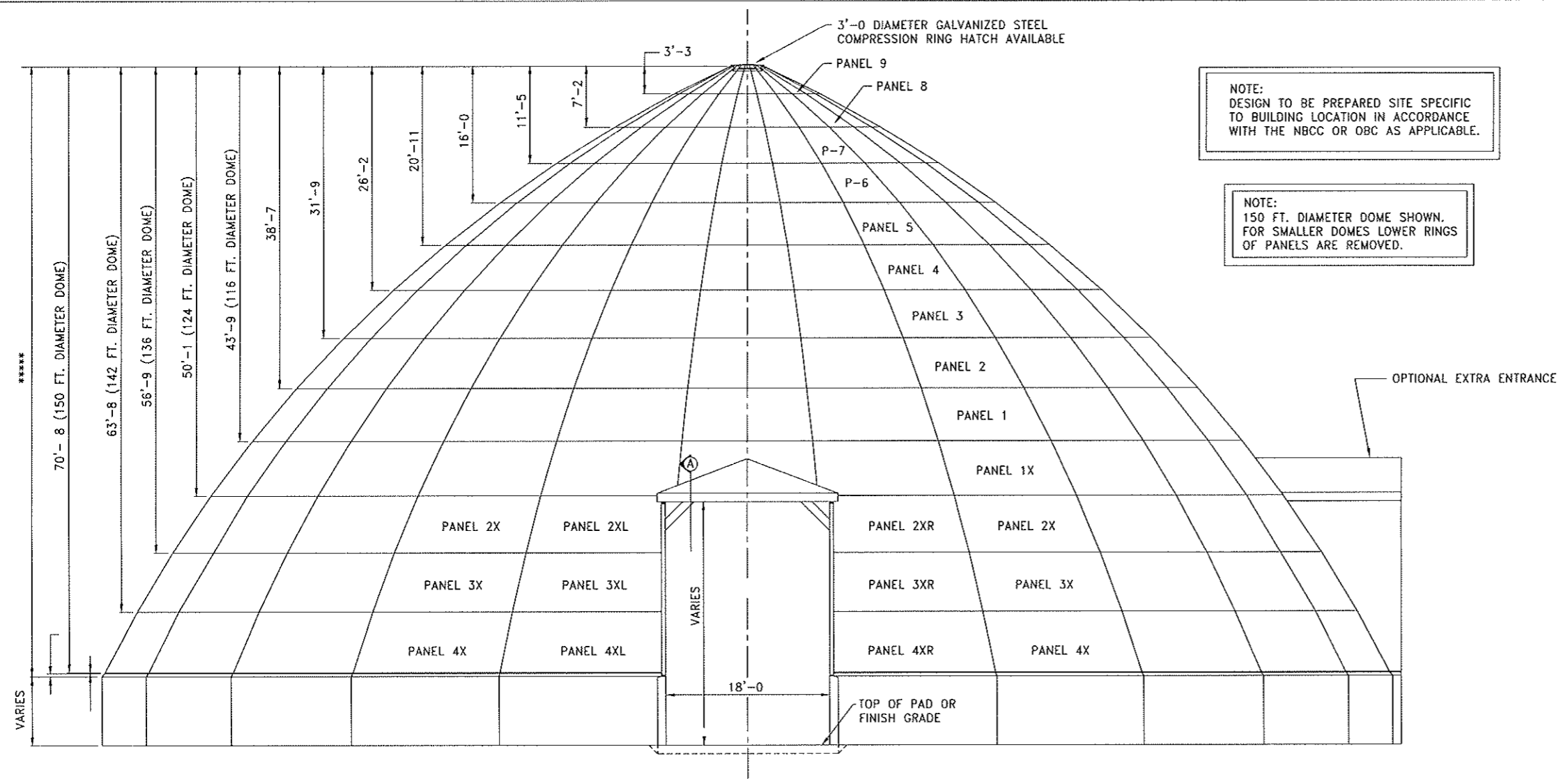
ENTRANCE ROOF FRAMING PLAN
SCALE = 1/8" : 1'-0"



SECTION 'A'
SCALE = 1/8" : 1'-0"

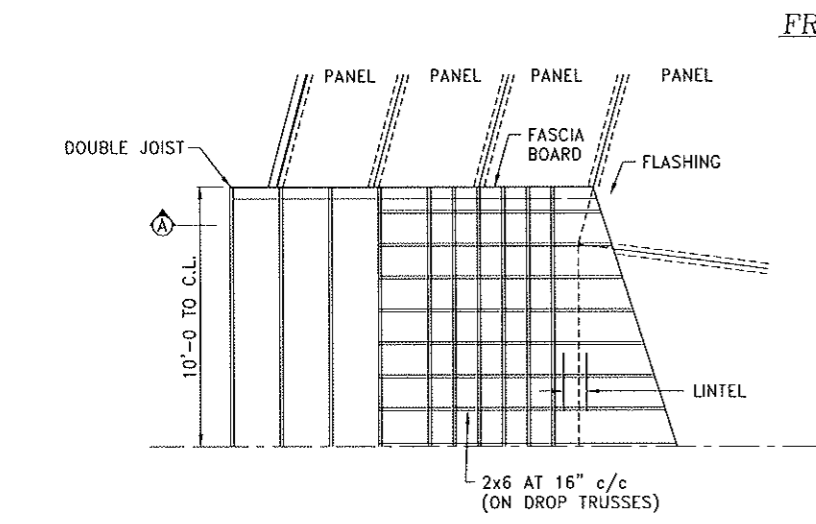
| | |
|---|---------------------------|
|  STORAGE SYSTEMS CONSTRUCTION CORP. CONSTRUCTORS OF PREFABRICATED BULK STORAGE SYSTEMS | Designed: D.J. |
| | Drawn: J.E.H. |
| 100 FT. DOME FAMILY 50 FT. TO 100 FT. DIAMETER DOMES ELEVATION & GENERAL NOTES INFORMATION PURPOSES | Project Engineer: D.J. |
| | Contract No.: ***-*** |
| Scale: AS NOTED | Drawing No.: INFO-2 |
| Date: FEBRUARY 2016 | |

GENERAL NOTES - 116' DOME FAMILY



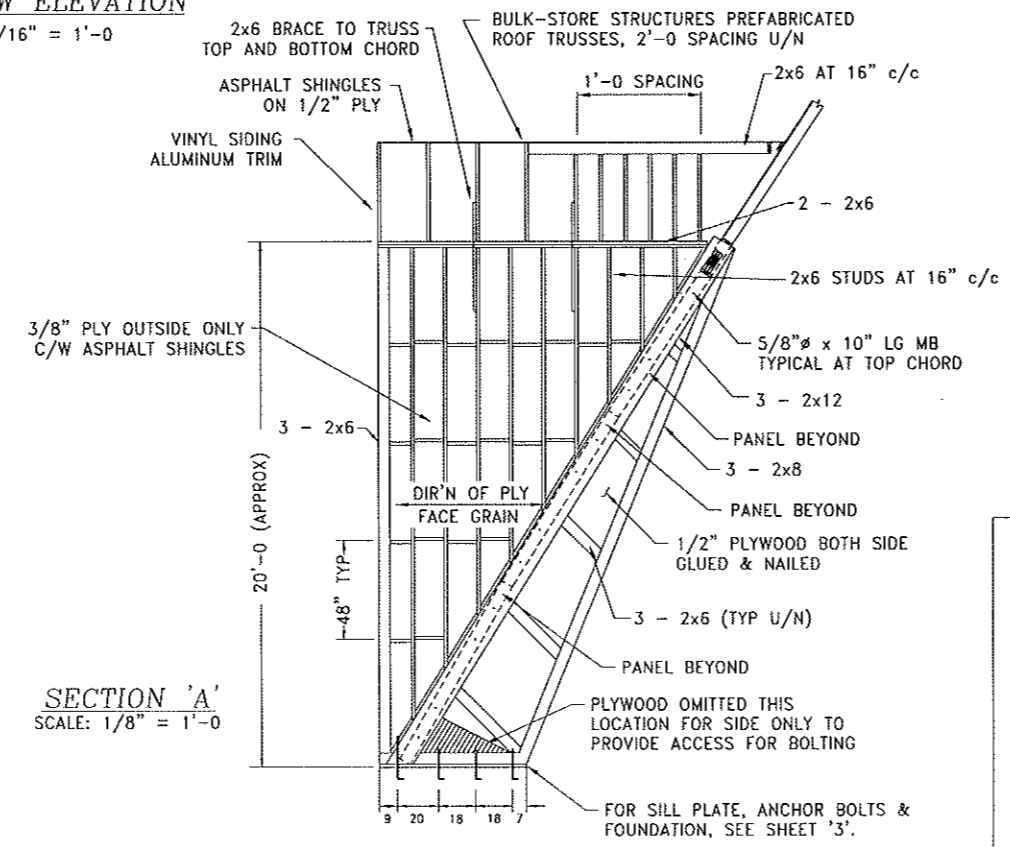
NOTE:
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NOTE:
150 FT. DIAMETER DOME SHOWN. FOR SMALLER DOMES LOWER RINGS OF PANELS ARE REMOVED.




ENTRANCE ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0

FRONT VIEW ELEVATION
SCALE: 1/16" = 1'-0



SECTION 'A'
SCALE: 1/8" = 1'-0

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 - 3.) REINFORCING STEEL SHALL BE BLACK OR EPOXY COATED DEFORMED BARS CONFORMING TO CAN/CSA G30.18, GRADE 400.
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 - 2.) PANEL FRAMING MEMBERS SHALL BE PLANED SO AS TO MEET FLUSH WITH PLYWOOD SHEATHING.
 - 3.) ALL PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO THE REQUIREMENTS OF CSA 0121, "DOUGLAS FIR PLYWOOD". UNLESS OTHERWISE NOTED ALL PLYWOOD SHALL BE 1/2 IN. SHEATHING GRADE.
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 - 2.) ANGLES L 2 x 1 1/2 x 3/16 x 3'-7 ARE REQUIRED TO BE INSTALLED IN LIEU OF WASHERS AT SIDERAIL CONNECTION IN PANELS 4X, 3X, 2X, 1X, 1 AND 2.
 - 3.) STEEL SHALL CONFORM TO CAN3-G40.21.
 - 4.) NAILS SHALL CONFORM TO THE REQUIREMENTS OF CSA 8111-1974, "WIRE NAILS, SPIKES AND STAPLES". NAILS USED IN THE CONSTRUCTION OF THE ENTRANCE CANOPY SHALL BE 3-1/2 IN. COMMON ROUND WIRE NAILS, COMMON SPIRAL NAILS OR EQUIVALENT.
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| | |
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|  <p>STORAGE SYSTEMS CONSTRUCTION CORP CONSTRUCTORS OF PREFABRICATED BULK STORAGE SYSTEMS</p> | Designed: D.J. |
| | Drawn: J.E.H. |
| <p>116 FT. DOME FAMILY 116 FT. TO 150 FT. DIAMETER DOMES ELEVATION AND GENERAL NOTES INFORMATION PURPOSES</p> | Project Engineer: D.J. |
| | Contract No.: ***-*** |
| Scale: AS NOTED | Drawing No.: INFO-3 |
| Date: FEBRUARY 2016 | |