PARTS LIST

TOP SECTION TRUSS FRAME
Part#: SHETRUS
QTY PER BAY: (4)
ADD-ON BAY: (+2)

SIDE PANEL
Part#: SHESIDE
QTY PER BAY: (4)* WITH NO PERSONNEL DOORS
ADD-ON PER BAY: (+2)

BACK PANEL
Part#: SHEBACK
QTY PER BAY: (3)** WITH NO REAR SLIDING DOOR
ADD-ON BAY: (+2)

SHELTER TRUSS LEG
Part#: SHTRUSSLEG
QTY PER TRUSS: (1)

SHELTER ANCHOR ASSEMBLY
Part#: SHANCHOR
QTY PER BAY: (8)
ADD-ON BAY: (+4)

CENTER SECTION TRUSS
Part#: UBTRUSS
QTY PER BAY: (2)
ADD-ON BAY: (+1)

SHORT ANGLE IRON
QTY: (4) PER AWNING KIT

LONG ANGLE IRON
QTY: (4) PER AWNING KIT

Ranch Equipment

Pri"fert®
PARTS LIST CONT.

C PURLIN
Part#: SHPURLINS
QTY PER BAY: (14)

LEFT AWNING C PURLIN
QTY: (2)

RIGHT AWNING C PURLIN
QTY: (2)

CENTER AWNING C PURLIN
QTY: (2)

CROSS BAND FLAT STRAP
QTY PER BAY: (4)

16IN C PURLIN
QTY: (28)
PARTS LIST CONT.

TIN LIST:

- **119"** TIN Part#: ASHEET119 QTY PER BAY: (4)
- **170"** TIN Part#: ASHEET170 QTY PER BAY: (8) (+2) WITH AWNING
- **84"** TIN Part#: ASHEET84 QTY PER BAY: (8) (+2) WITH AWNING
- **146"** TRIM Part#: RIDGECAP146 QTY PER BAY: (1)
- **38"** TRIM Part#: RIDGECAP38 QTY: (1) PER AWNING KIT
- **115"** TRIM Part#: CORNER115 QTY: (4)

**NOTE:** Overlapping high will always be on the left side of the metal and is referred to as the left side.

**SHELTER BAY CORNER TRIM (QTY: 4), Part # TRIMOC108**

**RIDGE CAP, QTY PER BAY: (1), Part#: TRIMRIDG146**

**OVERLAPPING HIGH**

**LIP SIDE**
PARTS LIST CONT.
Front and Back Wall Tin

NOTE: Measurements of ALL tin are to the long point.
OPTIONAL STALL ACCESSORY LIST

- **UPPER STALL CLIP**
  Part# SHWMNG
  QTY: 2 PER STALL

- **LOWER 2-WAY STALL FRONT CLIP**
  Part# SHCLIP2
  QTY: 1 PER CENTER POST

- **LOWER STALL CLIP**
  Part# SHCLIP290
  QTY: 1 PER POST

- **LOWER 3-WAY STALL CLIP**
  Part# SHCLIP3
  QTY: 1 PER CENTER POST

- **LEFT SIDE STALL FRONT CLIP**
  Part# SHCLIPL
  QTY: 1 PER STALL

- **RIGHT SIDE STALL FRONT CLIP**
  Part# SHCLIPR
  QTY: 1 PER STALL
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<tr>
<th>Item Description</th>
<th>Part #:</th>
<th>QTY:</th>
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<tbody>
<tr>
<td>5/16&quot; x 7/8&quot; LAP SCREW</td>
<td>FB14-14x7/8LAP</td>
<td>512</td>
</tr>
<tr>
<td>3/8&quot; WASHER</td>
<td>FW06</td>
<td>32</td>
</tr>
<tr>
<td>3/8&quot;x1&quot; FLOW BOLT (Self-Tapping)</td>
<td>FB061.00ZPG2ST</td>
<td>113</td>
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<tr>
<td>3/8&quot;x2 1/2&quot; BOLT</td>
<td>FB060.25ZPG2</td>
<td>28</td>
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<tr>
<td>3/16&quot;x1 1/2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8&quot;x3/4&quot; BOLT</td>
<td>FB060.75ZPG2</td>
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<tr>
<td>3/8&quot;x1 1/4&quot; TEK SCREW</td>
<td>FB12-14x1-1/4TEK</td>
<td>312</td>
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<tr>
<td>5/16&quot;x3/4&quot; BOLT</td>
<td>FB12-14x3/4TEK</td>
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<tr>
<td>5/16&quot;x1 TEK SCREW (Self-Drilling)</td>
<td>FB051.00ZPG2TEK</td>
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<tr>
<td>3/8&quot;x3/4&quot; BOLT</td>
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<td>3/8&quot;x3/4&quot; BOLT</td>
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<td>3/8&quot;x1&quot; TEK SCREW</td>
<td>FB12-14x1-1/4TEK</td>
<td>312</td>
</tr>
</tbody>
</table>

General Note: Hardware quantity totals are per single bay figures.
IMPORTANT:

Priefert Utility Barns can be erected on a concrete foundation or on a dirt pad. If the Utility Barn is going to be erected on a dirt pad, anchor rods as shown in Fig.#1 are used. The following sheets will show barn assemblies for dirt pads and for concrete.

ANCHOR ROD DETAIL
Fig.#1

If the Utility Barn is going on Concrete, Hilti bolts "Can be seen in Fig.#2" are used in the assembly process. The Hilti bolts have pre-drilled locations in the lower frame members to allow ease of installation. Sheet #23 will show the Hilti locations in the frame work.
ANCHOR ROD LAYOUT (SUMMARY NOTES)  
FOR BARNs WITHOUT CONCRETE FOUNDATION

NOTE: Pictorial views of the step below are found on the "Plan View", and "Anchor Layouts (Sheets 10-12)

Locate all Ground Anchor positions and lay them out. Attach all Ground Anchors together using the 4 inch Purlin that is supplied for the top of the shelters. These will tie into the ground and set the distance between the Anchors. Raise all of the Purlins off the ground by 4 inches from the highest ground elevation. All of the Ground Anchors must be at the exact height and level before the concrete is poured. Make sure that all Anchor tops are at the same elevation and nothing is sloping, otherwise it will be more difficult to get all of the Fir-Outs and other components to bolt into the Stable at the latter stages.

Start with a Shelter Anchor and connect all four legs of the Shelter Bay, and then tie in the Second Bay Shelter Purlin. After all of the Bay Anchors on one side are secure with Purlin, start the other side and repeat the process. All Shelter Anchors must be apexed (See Sh 10) and made perfectly square before proceeding. After the Shelter Anchors are located, you must also do the same with the Fir-Out Anchors. The Fir-Outs have two bolts that connect them to the front Shelter legs to hold them in place. Pour concrete around the ground anchors and wait until it is cured.

NOTE: If built on Concrete Slab instead of using Ground Anchors use HILTI (HIT-RE 500) Adhesive Anchors, or Red Head 1/2" x 5" material. ***Shelter and Fir-Out Anchors not required.
ANCHOR ROD "PLAN VIEW"
FOR BARNS WITHOUT CONCRETE FOUNDATION

TOOL LIST

<table>
<thead>
<tr>
<th>Tool</th>
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<tbody>
<tr>
<td>1/2&quot; SOCKET</td>
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<tr>
<td>IMPACT (OPTIONAL)</td>
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<td>LADDERS (2)</td>
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</tr>
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<td>WRENCH</td>
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</tr>
<tr>
<td>TAPE MEASURE</td>
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</tr>
<tr>
<td>HAMMER</td>
<td></td>
</tr>
<tr>
<td>5/16&quot; SOCKET</td>
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<td>LEVEL</td>
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<tr>
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<td>SQUARE</td>
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<td>RATCHET</td>
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<tr>
<td>LASER (OPTIONAL)</td>
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</tr>
<tr>
<td>POST HOLE DIGGER</td>
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</tbody>
</table>

Detail A
(See Sh 9)

FOR BARNS WITHOUT CONCRETE FOUNDATION
ANCHOR ROD "PLAN VIEW"
FOR BARNs WITHOUT CONCRETE FOUNDATION

Notice that the 3-holed side is facing outward.
Notice that the 1-holed sides face each other.

Notice that the 3-holed side is facing outward.
Notice that the 1-holed sides face each other.
ANCHOR ROD LAYOUT DETAILS

FOR BARNs WITHOUT CONCRETE FOUNDATION

See Detail B

Top Of Grade

1 Bolt required, each end of Purlin, 14 pl

16 Sq Typ

24-1/2

8
Step 1: Locate the Truss Leg and the Shelter Truss. Position the Truss Leg so that the side with 5 holes is facing Truss, and that the hole pattern with a hole 1" down and 3" down is located at the top as shown in DETAIL 1.

Step 2:

Fasten the Truss to the Leg with (4) 3/8" X 3" Bolts.

Step 3: The Truss should approximately line up with the top of the leg.

Repeat Steps 1 & 2 until all Trusses are assembled.
SHELTER BAY TRUSS ASSEMBLY

FOR STABLES WITH CONCRETE AND DIRT FOUNDATIONS

Note: Hole orientation is crucial, make sure that the holes are lined up exactly as shown in the detailed views.

Step 4: Lay the Top Section Truss on the ground and slide the side panel onto it at each end. Secure each leg with (2) 3/8" x 1" Flow Bolts.

Step 5: Repeat Step 4 to complete the Shelter Bay Truss Assembly for the other side of the structure.

NOTE: The (3) consecutive holes at the top of the legs should face upward when installed correctly.
SHELTER BAY GROUND ANCHOR CONNECTION
FOR BARNs WITHOUT CONCRETE FOUNDATION

Line up the holes of the Ground Anchor per Detail C, with the holes of the leg and slide it up inside the leg. Secure with (3) 3/8" x 1" Flow Bolts, and the standard 3/8" x 1/2" bolt that goes in the hole on the inside of the leg.

Repeat Step 6 to complete the leg assembly for the other side of the structure.

NOTE: OMIT STEPS 3 AND 4 IF USING CONCRETE FOUNDATION
Step 8: Line up barn side panel to the edge of the concrete tin ledge on the back and side as shown in detail C. There are thru holes in the lower square tubing to secure frame to the concrete with Hilt bolts later in the process.

SEE DETAIL C

1 1/2" X 1 1/2" Tin Ledge
Now that the outer frame is standing, locate the back wall and secure with 3/8" X 1" Flow Bolts. Connect them at the locations shown in Details D, E, and F.

Step 9:

Step 10: Locate the second side panel and top section truss frame and attach it to the other side of the back wall as performed in Step 9.

Note: Angle iron faces away from shelter on back panel.
(OPTIONAL) STALL FRONT ASSEMBLY INSTRUCTIONS

Step 1: If structure is installed on a dirt floor, remove the (2) previously installed 3/8"X1" Flow Bolts from the bottom of the shelter leg (There are no bolts pre-installed if on concrete) and position the bottom stall clip to where the 6" tabs are to the inside of the shelter. Secure it to the shelter leg with (2) 3/8"x1" Flow Bolts as shown in Detail A. The clip in Detail A is an SHCLIP2 and is used to add stall fronts to continuous bays. If there is only one front needed, use a SHCLIP left or right like used in Detail B.

Step 2: Repeat the process in Step 1 for the left side of the shelter using a SHCLIPL as shown in Detail B. The same process is applied for the right side of the shelter using a SHCLIPR.
Step 3: Slide the stall front down onto the stall clips. Next, slide the top stall clips (Part#: SHWNMG) down into the top of the stall front leg and secure it to the stable post with 3/8"x1" self tapping flow bolts. This concludes the stall front installation process.
Step 11: Brace the Truss frames with the C-Purlins as shown per Detail G. Align the holes and secure with 3/8" x 1" Flow Bolts. C-Purlin openings shall face inward, 3 pl.

NOTE: Use a level and framing square to ensure that all four sides and top are level and square. The OD measurements on all four sides should be 12'-2 1/2". The diagonal ID measurement in both directions of the assembly should be approximately 16' 8" at this stage.
Repeat Steps 9-11 to complete the Second Bay Shelter on the opposite anchors adjacent to First Bay Shelter. Anchor the bays using the pre-set anchors at each corner.

**Step 12:**

*Install the 1-1/4" Flat Strap (2) to the First Bay Shelter by securing the (2) 3/8" x 1" Flow Bolts into the pre-drilled holes in the top bays 2" x 4" tubing. When the assembly is squared properly the straps should fit tightly in an "X" configuration. Perform the same step to the top of the Second Bay Shelter.*

**Step 13:**

**Step 14:** Continue Step 1 (on Sheet 13) thru Step 13 to build opposite Shelter Bays.
Step 15: The Barn should appear as shown to this point. Assure that bay shelters on both sides are erected, squared, and leveled with perlins and flat straps secured tightly.

NOTE: This illustration shows a 1-bay utility barn assembly. The barn that you are constructing may have more bays and should have all added bays constructed to this point.
All of the building corners should be at the edge of the tin ledge and squared up at this point. Once the building is square, insert the 1/2"X7" Hilti bolts in all of the lower square tubing thru holes as shown. Pre-Drill the concrete 4" for the Hilti bolts. There should be 1 inch of the Hilti shank above the top of the square tubing after inserted into the hole.
Step 17: *Hoist the Center Truss Sections into place, in a front to back order.*
*Attach the Center Truss Sections (plates) against the front of the tubing of the shelter assemblies per Details J.* There are holes that will line up and dictate the alignment of the Center Truss. *Use the 3/8" X 3" bolts going through the Shelter Truss to secure the Center Truss.* Repeat these steps until all Center Trusses are erected for every bay in the Barn.
Step 18: Stabilize the Center Section by installing C-Purlins (4) on the Center Section Trusses, spanning the entire center section with 3/8" x 1" Flow Bolts.
AWNING ASSEMBLY

Attach everything with 3/8" x 1" Flow Bolts.

NOTE: Attach to each other
**Step 1:** Locate the Long and Short Angle Iron Pieces. Before screwing any hardware, make sure that the holes on the angle iron fall in line with the 16in. C Purlin, and that one side is against the C Purlin with the other side against the Shelter Side Wall.

Take the Short Angle Iron and start at the peak of the roof. After checking to make sure the holes all fall in line with the Purlin, attach the angle iron with 3 screws. Make sure that the end of the angle iron (down grade), goes to the midway point of the C Purlin per Detail 3.

**Step 2:** Now take the Long Angle Iron and start at location Detail 2. Once again checking to make sure that all holes fall in line with C Purlin, attach part with screws, ending with Detail 1. Only snug up the last screw on Detail 1.
This is the leading edge that you want to start with when installing your roof panels. Align this edge flush with the side of the shelter and begin securing it with the fasteners provided.

**Self-Tapping LAP Screw**

- 20" O.C. at sidelap
- Part # FB14-14x7/8LAP

**Self-Drilling TEK Screw**

- Part # FB12-14x3/4TEK

**Note:** Correct fastener installation is a critical step when installing roof tin panels. Drive the fastener in until it is tight and the washer is firmly seated. DO NOT over tighten fasteners. A slight extrusion of neoprene around the washer is a good visual tightness (max) check.
"TINNING" SUMMARY NOTES

NOTE: A pictorial of each of the instructions below follows on sheets 30-36.

Step 19: **Shelter Bay Back (Right Side):** Install the (4) sheets of Tin by starting the leading edge of a 119" Sheet flush with the front corner of the Barn. Notch the tin to go around overhang of Truss. Lay (3) 119" tin sheets with 1 corrugated overlap, notching the third sheet.

Step 20: Repeat Steps 19, starting at the indicated point on Sheet 31.

Step 21: Tin the front of the utility barn, using TEK and LAP screws provided, and start at the indicated points. If installing an awning, screw the top of the metal to the previously attached angle iron, otherwise screw to the top 2" X 4" member of the trusses.

Step 22: Repeat Step 21 on the opposite side.

Step 23: **Roof (Right Side):** Install the (5) 170" sheets of tin, with TEK and LAP screws provided. Starting with the leading edge flush at the indicated point on Sheet 33, and overhanging the end of the barn by 3", lay the Tin with one corrugated overlap until the entire roof is covered.

Step 24: **Roof (Right Side):** Install the (5) 84" sheets of tin, with TEK and LAP screws provided. Starting with the leading edge flush at the indicated point on Sheet 34, aligned at the indicated point, and overlapping the 170" Tin, lay the Tin with one corrugated overlap until the entire roof is covered.

Step 25: Repeat Steps 23-24, starting at the indicated point on Sheet 35.

Step 26: Now place the Corner trim on all the vertical corners using TEK screws. Continue by placing the Ridge Cap Trim at the high eve of the roof, using LAP screws. If Barn has an awning, you will also be provided with a 42" piece of Ridge Cap Trim. Align with the outermost edge and you should have 6" overhang onto the last piece.
"TINNING"  STEP 19

Start Tin at this edge.

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29
"TINNING" STEP 20

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29

Start with leading edge here.

Repeat: Step 19 (119" Side Tin)
"TINNING" STEP 21

NOTE: For proper Tin fasting procedures please refer to Sheet 28 & 29

Repeat for opposite side.

Start with leading edge here.
"TINNING" STEP 23

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29

Start With Leading Edge Here.

Step 23: 170" Tin

3" overhang past this member

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"TINNING"  STEP 24

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29

Start With Leading Edge Here.

Top of tin should overlap and align with face of C Purlic as shown
"TINNING"  STEP 25

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29
"TINNING"  STEP 24

NOTE: For proper Tin fastening procedures please refer to Sheet 28 & 29

Corner Trim

Ridge Cap
**Step 1:** After Barn is "Tinned", take (1) 4' X 8' plywood sheet and place against the side wall on the inside. Place (4) 3/16" X 1 1/2" screws spaced approx. 1' across Member 1, Member 2, and Member 3. Continue on until the whole inside of the barn is covered.