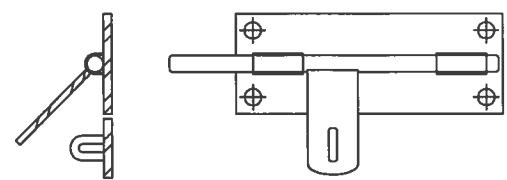


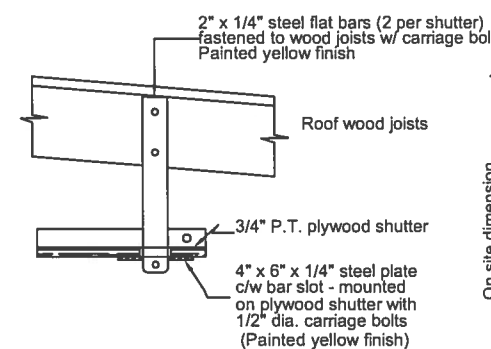
ELEVATION OF SHUTTER
SCALE: 1/2" = 1'-0"

TYPICAL ROOF CONSTRUCTION
SBS BITUMEN MEMBRANE ROOFING
3/4" EXTERIOR GRADE PLYWOOD SHEATHING
2" x 6" WOOD JOISTS AT 16" o.c.



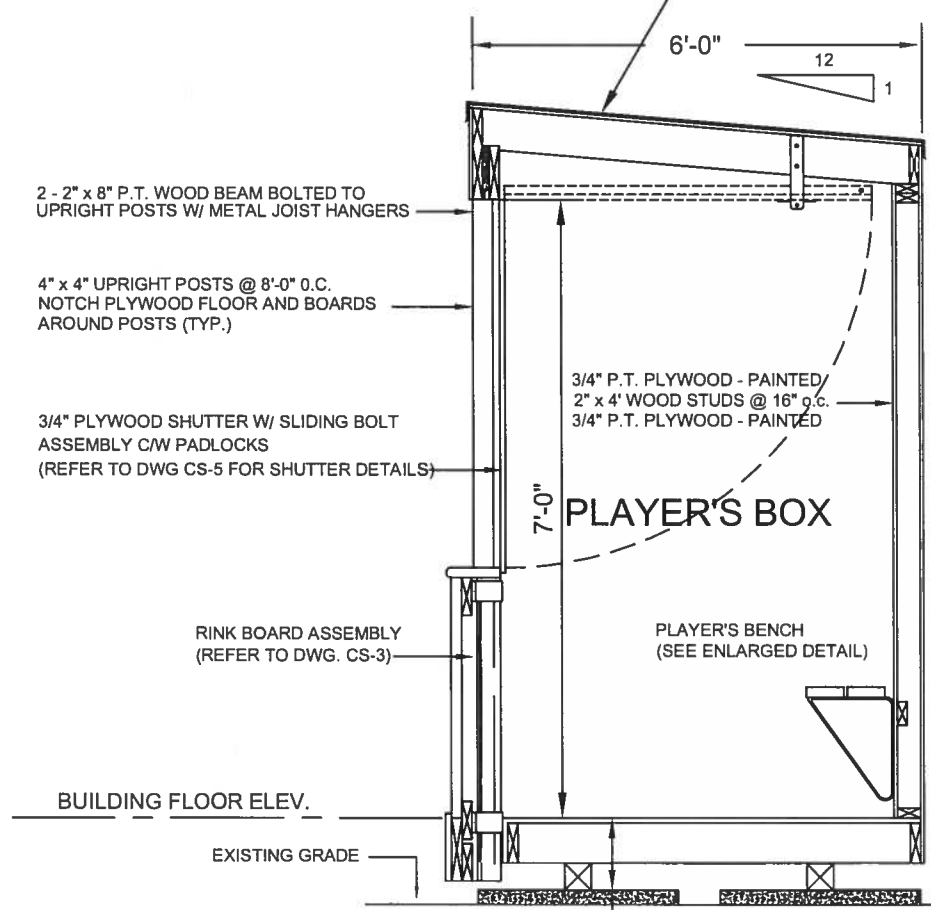
NOTES APPLY TO SHUTTER CONSTRUCTION:

- All fasteners to be galvanized.
- Screws to be 3" (75mm) with 1 1/2" (38mm) clear shank and cadmium plated.
- All bolts, nuts, and washers to be cadmium plated.
- All bolt locations to be pre-drilled.
- All hardware to be hot-dipped galvanized after fabrication.
- Heavy duty galvanized 6" strap length Tee hinges (Approved product: Stanley SC908BP)
- Heavy duty utility 1/2" (50mm) diameter barrel bolt assembly (Approved Product: Penner Doors #1419)

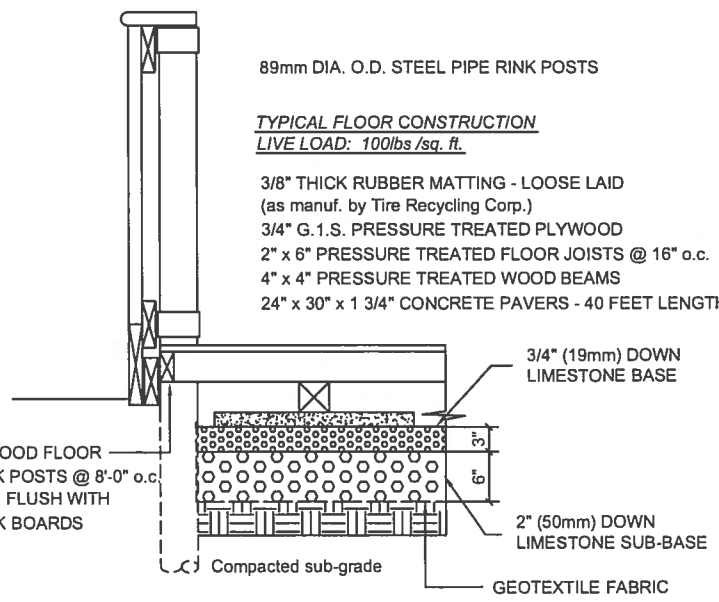
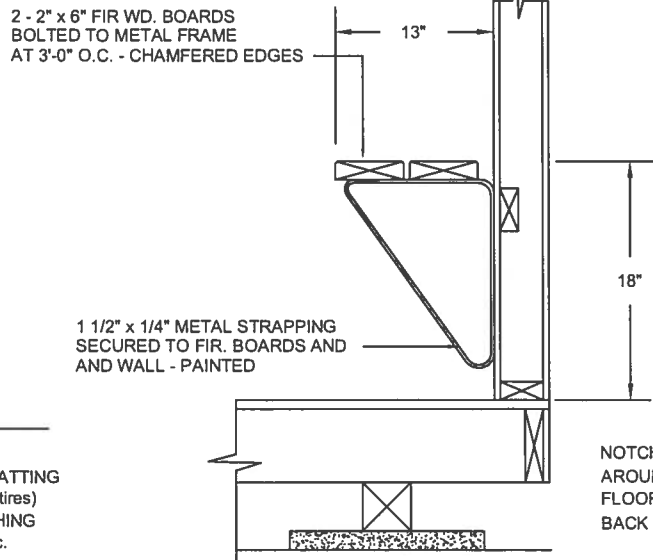


GEOTEXTILE FABRIC SPECIFICATIONS:

- 1 Geotextile: shall consist of a woven geotextile fabric, used as a separator between the crushed limestone sub-base material and the compacted subgrade. The woven geotextile material for construction shall be Mirafi 600X distributed by Armtec, Amoco 2006 distributed by Brock White Company, or Armtec 855 by Armtec.
- 2 All work related to the geotextile storage, handling and installation shall comply with the recommendations of the manufacturer.
- 3 Prior to laying the fabric, the subgrade material shall be cleared of all unsuitable material and compacted to provide a smooth uniform surface.
- 4 The fabric shall be evenly laid, in order to allow conformity to the compacted subgrade. Fold and wrinkles in the fabric shall be avoided. Upon completion of the installation of the fabric, crushed sub-base material shall be installed.
- 5 Materials placed in this project shall be subject to testing and approval by the Contract Administrator. The Contract Administrator reserves the right to reject any materials or works which are not in accordance with the requirements of this Specification.



SECTION THRU PLAYER'S BOX
SCALE: 3/8" = 1'-0"



MATERIAL SPECIFICATION SUMMARY

ROOFING: SBS modified bitumen membrane roofing / Soprema

1.0 STORAGE AND DELIVERY

- 1 Only skilled and certified trade persons, officially employed by a roofing contractor operating adequate and necessary equipment, will be authorized to perform all roofing work.
- 2 At all times, materials will be adequately protected and stored in a dry and properly ventilated area, away from any welding flame or spark and sheltered from the elements. If rolls cannot be stored in a heated environment, they may be pre-conditioned before installation. Consult Soprema's "Material Installation Guide" on membrane application procedures.
- 3 Materials delivered in rolls will be carefully stored upright; flashing will be stored to avoid creasing, buckling, scratches or any other possible damage.

2.0 PRODUCTS

- 1 Primer: ELASTOCOL FR by SOPREMA.
- 2 Adhesives: Cold adhesive-mastic composed of a bituminous binder, added to bonding agents and solvents. Specified product: SOPRACOLLE 300 by SOPREMA.
- 3 Overlay: Multi-ply, semi-rigid asphaltic roofing substrate board. Specified product: SOPRABOARD by SOPREMA.
- 4 Roofing membrane reinforcement, base sheet flashing and cap sheet: non-woven polyester and glass grid. Mix of selected bitumen and SBS polymer. Specified product: SOPRALENE FLAM 180.
- 5 Colour: As selected by Contract Administrator.
- 6 Flexible membrane for expansion joints: Specified product: SOPRAJOINT membrane by SOPREMA.
- 7 Waterproofing mastics: Specified product: SOPRAMASTIC 200 by SOPREMA.

3.0 EXECUTION

- 1 Surface examination and preparation must be completed in conformance with recommendations in the SOPREMA Manual.
- 2 Do not begin any work before surfaces are smooth, dry, exempt of debris.
- 3 No materials will be installed during rain or snowfall.
- 4 Prepare surfaces and complete waterproofing work in conformance with SOPREMA'S requirements, and the "Material Installation Guide."
- 5 Application of asphalt primer: when a torch grade membrane is used on wood substrate, surface must be primed with ELASTOCOL FR. All surfaces to be primed must be free of dust or any residue.
- 6 Sheet metal flashing and trim. Unless otherwise specified, nails, staples, screws, bolts, washers and all other metal fasteners, will be made of compatible and rust-proof metals.
- 7 Caulk all sheet metal joints and all junctions with other materials.

NO.	DESCRIPTION	DATE	BY
REVISIONS / ISSUE			
THE CITY OF WINNIPEG			
PUBLIC WORKS DEPARTMENT BUILDING SERVICES DIVISION 100 MAIN STREET, MAIN FLOOR WPG, MB. R3C 1A4			
PROJECT: STANDARD CONSTRUCTION DETAILS FOR OUTDOOR HOCKEY RINKS			
SHEET TITLE PLAYER'S BOX SECTION & SHUTTER DETAILS			
ENG. STAMP	PROJECT NO.	DRAWN BY: LMC	CHECKED BY:
APPROVED BY:			
SCALE: AS NOTED		DATE: JULY 12, 2002	
DWG. NO. CS-5			REV.