Typical Ice Rink System
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
## Project Schedule, Typical Estimate 200' x 85' Permanent Sand Base Rink System Installation

<table>
<thead>
<tr>
<th>WEEK</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Construction Drawings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Manufacturing &amp; Domestic Shipping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Soil Heat Floor System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Grading Over Sub-Soil Piping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rink Floor Insulation &amp; Vapor Barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rink Piping System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Sand Layer Over Rink Piping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dasherboard Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Shielding Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigeration Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Start-Up &amp; Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice Making &amp; Painting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Dehumidification System Installed By Mechanical Contractor Not Shown

All Scheduling Based Upon 7 Day On site 10 Hour Per Day Work Schedule By Qualified Personnel
Listed is estimated man hours along with equipment required on-site to complete the job. Supervision is not included.

<table>
<thead>
<tr>
<th></th>
<th>ESTIMATED MAN HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUB-SOIL</strong> (FLOOR PORTION ONLY)</td>
<td></td>
</tr>
<tr>
<td>Air Compressor</td>
<td>60</td>
</tr>
<tr>
<td>Fluid Charging Pump</td>
<td></td>
</tr>
<tr>
<td>Assorted Hand Tools</td>
<td></td>
</tr>
<tr>
<td><strong>FINE GRADING</strong></td>
<td>250</td>
</tr>
<tr>
<td>Payloader, 2 YD Bucket minimum</td>
<td></td>
</tr>
<tr>
<td>LaserGrader If Available</td>
<td></td>
</tr>
<tr>
<td>Vibatory Plate Compactors</td>
<td></td>
</tr>
<tr>
<td>Laser Level Device</td>
<td></td>
</tr>
<tr>
<td>Assorted Hand Tools</td>
<td></td>
</tr>
<tr>
<td><strong>INSULATION &amp; VAPOR BARRIER</strong></td>
<td></td>
</tr>
<tr>
<td>Cutting Tools</td>
<td>125</td>
</tr>
<tr>
<td>Assorted Hand Tools</td>
<td></td>
</tr>
<tr>
<td><strong>RINK PIPING SYSTEM</strong></td>
<td>225</td>
</tr>
<tr>
<td>Fork Truck</td>
<td></td>
</tr>
<tr>
<td>Air Compressor</td>
<td></td>
</tr>
<tr>
<td>Assorted Hand Tools</td>
<td></td>
</tr>
<tr>
<td>Electric Socket Drivers</td>
<td></td>
</tr>
<tr>
<td>Fluid Charging Pump</td>
<td></td>
</tr>
<tr>
<td><strong>DASHER BOARD SYSTEM &amp; UPPER SHIELDING</strong></td>
<td>450</td>
</tr>
<tr>
<td>Rotary Hammer Drill</td>
<td></td>
</tr>
<tr>
<td>Assorted Hand Tools</td>
<td></td>
</tr>
<tr>
<td>Fork Truck</td>
<td></td>
</tr>
<tr>
<td><strong>SUB-HEAT MECHANICAL</strong></td>
<td>80</td>
</tr>
<tr>
<td>Standard Refrigeration Tools</td>
<td></td>
</tr>
<tr>
<td>Air Compressor</td>
<td></td>
</tr>
<tr>
<td>Fluid Charging Pump</td>
<td></td>
</tr>
<tr>
<td><strong>REFRIGERATION UNIT</strong></td>
<td>200</td>
</tr>
<tr>
<td>Standard Refrigeration Tools</td>
<td></td>
</tr>
<tr>
<td>Air Compressor</td>
<td></td>
</tr>
<tr>
<td>Fluid Charging Pump</td>
<td></td>
</tr>
<tr>
<td>Standard Plumbing Tools</td>
<td></td>
</tr>
<tr>
<td>Crane For Rigging &amp; Placement</td>
<td></td>
</tr>
</tbody>
</table>
Ice Rink Refrigerant Flow Diagrams
Design Drawings

www.everything-ice.com
(888)-543-0921
SINGLE RINK SECONDARY FLUID FLOW DIAGRAM
4 PUMPSKID LAYOUT TEMPLATE
PUMPSTAT SKID: ____________________________

BP4: _____ HP; _____ GPM @ _____ FT. HD. _____ x _____; _____
BP3: _____ HP; _____ GPM @ _____ FT. HD. _____ x _____; _____
BP2: _____ HP; _____ GPM @ _____ FT. HD. _____ x _____; _____
BP1: _____ HP; _____ GPM @ _____ FT. HD. _____ x _____; _____

SECONDARY FLUID: _____% ______________________

MOTOR VOLTAGE: ______/_____/_____

PUMP MFGR: ____________________________

4 PUMP-PUMPSTAT SKID ISO
REVERSED LEFT HAND PLANE
EVAPORATOR ISO
RIGHT-HAND PLANE
4000 psi CONC. @ 28 DAYS
FINISH DEAD LEVEL (±1/8")
BOTH WAYS.

1% SLOPE - 4 SIDES

#4 REBAR, 18”O.C. BOTH WAYS.

COMPACTED 0”-1” ENGINEERED FILL
(98% BY MODIFIED PROCTOR)

ST'D 6” CONCRETE CONDENSER PAD
SECTION A-A
NOTES
1). MECHANICAL ROOM TO BE VENTILATED, PER CODE.
2). MECHANICAL ROOM HEATED TO MIN. 50° F.
3). CONCRETE FLOORS/PADS UNDER ALL EQUIPMENT
    SHALL BE FINISHED DEAD LEVEL, +1/8" OVERALL.
    CONCRETE TO BE MIN. 4000 PSI @ 28 DAYS.
4). SERVICE PIT TO BE GRAVEL FILLED AFTER PIPING WORK
    IS COMPLETE.
5). SEE CONDENSER PAD SECTION A-A ON
    DWG. FADG/MECH-MRM-100
6). P.C. TO PROVIDE 2" DRAIN/OVERFLOW CONNECTION &
    1" WATER MAKE-UP LINE TO EVAP. CONDENSER @
    CONDENSER WATER PUMP END.
7). E.C. TO HEAT TRACE WATER MAKE-UP LINE & PUMP
    SUCTION TO PROTECT AGAINST FREEZING.
    P.C. TO INSULATE OVER HEAT TRACE.

TYPICAL MECHANICAL ROOM LAYOUT
SELF-CONTAINED EVAP. COOLED
1. Mechanical room to be ventilated, per code.
2. Mechanical room heated to min. 50°F
3. Concrete floors/pads under all equipment shall be finished dead level, 1/8" overall. Concrete to be min. 4000 PSI @ 28 days.
4. Service pit to be gravel filled after piping work is complete.
5. Air-cooled condenser requires minimum 8'-0" clearance on each side for air flow. Do not obstruct.
Ice Rink Refrigeration System
Design Drawings
NOTES
1. PAINT COLOR TO BE "IRS" BLUE
   CLEAN ALL PIPING SOLDER JOINTS FOR PAINT ADHESION
   COVER ALL IDENTIFICATION PLATES PRIOR TO PAINTING
2. COMPRESSOR CONDUITS TO BE ROUTED UNDER MOTORS NOT OVER.
3. CONTROL ITEMS TO BE MOUNTED IN DOOR:
   HOUR METERS, LEAD LAG SWITCHES, PUMP DOWN SWITCHES,
   JOG BUTTONS, POWER ON LITE, & COMPRESSOR RUN LITES.
4. TEMPERATURE CONTROLLER TO BE SHIPPED LOOSE.
5. GAUGES AND LIGHTS TO BE MOUNTED AS NEARLY AS
   POSSIBLE TO EYE LEVEL.

---

2 1/2" DIA. RIGGING HOLES
5/8" DIA. UNIT MOUNTING HOLES
EST. UNIT WT. 10,100 LBS.
AIR FLOW

MODEL___
EVAP. CONDENSER

RECEIVER SKID BEYOND

MOTOR HOUSING

ROOF

1-BEAM SUPPORT RUNS CONTINUOUSLY ALONG BASE OF UNIT, TYP(2). SIZE PER STRUCTURAL ENGINEER.

4'-0"

ROOF LOADS
RECEIVER SKID: _________ LBS
EVAP CONDENSER: _________ LBS

TYP ROOFTOP EVAP CONDENSER INSTALLATION
EVAPORATIVE CONDENSER

TYPICAL ROOF LAYOUT

NOTES:
1) BEAMS SHOULD BE SIZED IN ACCORDANCE WITH ACCEPTED STRUCTURAL PRACTICES. MAXIMUM DEFLECTION OF BEAM UNDER UNIT TO BE 1/360 OF LENGTH, NOT TO EXCEED 1/2" OVERALL. DEFLECTION MAY BE CALCULATED USING 55% OF THE TOTAL OPERATING WEIGHT AS A UNIFORM LOAD ON EACH BEAM.
2) STEEL BEAM MUST RUN CONTINUOUSLY UNDER PAN SECTION OF CONDENSER, AND MUST BE LEVEL WITHIN 1/6" IN 6" CONDENSER UNIT CANNOT BE LEVELLED BY SHIMMING.
3) STRUCTURAL STEEL BASE TO BE DESIGNED BY OWNER'S ENGINEER. INSTALLATION BY G.C. STRUCTURE MUST BE IN PLACE BEFORE EQUIPMENT DELIVERY BY BRS.
4) OWNER'S ENGINEER SHALL VERIFY ROOF LOAD CAPABILITY & PROVIDE STRUCTURAL SUPPORT FOR TOTAL OPERATING WEIGHT OF EVAP CONDENSER AND RECEIVER SKID. COORDINATE ANY REQUIRED COLUMN WITH EQUIPMENT LOCATIONS IN ROOM BELOW.
5) UNIT MUST BE LOCATED FOR UNOBSERVED AIRFLOW & AIR INLET & DISCHARGE.

SEE DWG. EC-124 FOR SECTION

CONTINUOUS I-BEAM SUPPORT UNDER CONDENSER & RECEIVER SKID PER STRUCTURE ENGINEER, INSTALL BY G.C.

EVAP. CONDENSER
MODEL #
4'-5/8" x 11'-11" x 3'-4" x 4'-3/8"
OP. WT. ___ lbs.

FAN MOTOR HOUSING

AIR INLET

BUILDING WALL

1'-0" x 3'-0" PIPE CHASE FROM 1ST FLOOR BY G.C./ROOF CONTRACTOR. COORDINATE FINAL POSITION WITH.

PIECE CHASE FROM 1ST FLOOR BY G.C./ROOF CONTRACTOR. REQ'D FOR REMOTE SUMP APPLICATIONS ONLY. (1'-0" x 2'-0" OPENING)

2" OVERFLOW/DRAIN CONNECTION/PIPING BY P.C. - PROTECT FROM FREEZING.

OP. WT. ___ lbs.

RECEIVER SKID
4'-0" x 6'-0"

EVAPORATIVE CONDENSER

TYPICAL SPLIT SUMP APPLICATION
1" COPPER WATER MAKE UP LINE
BACKFLOW PREVENTION, PIPING & INSULATION BY P.C., HEAT TRACE BY E.C.

EVAP. CONDENSER END VIEW

2" DRAIN/OVERFLOW
PIPING BY P.C.

EVAPORATIVE CONDENSER
FIELD WORK BY OTHER CONTRACTORS
EVAP. CONDENSER INTAKE DUCT

DUCT, APPROX. 12'-0"x3'-6"x2'-0"
BY M.C.(VERIFY SIZE FROM CERTIFIED DWGS.)

WALL

FAN MOTOR

INTAKE BIRD SCREEN
BY M.C.

2'-0"

3'-6" (VERIFY)

3"
Ice Rink Refrigeration
Electrical Design Drawings

Everything Ice

www.everything-ice.com
(888)-543-0921
Ice Rink Sub-Soil Heat Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
CIRCUIT #1
HEAT RECLAIM
CONDENSER

CIRCUIT #2
HEAT RECLAIM
CONDENSER

BYPASS

EXPANSION TANK

PRESSURE
RELIEF

TIMECLOCK ACTIVATES PUMP FOR 15 MINUTES EACH DAY, TO ALLOW TEMPERATURE SENSING. TEMPERATURE CONTROL CONTINUES PUMP OPERATION UNTIL FLUID REACHES CORRECT TEMPERATURE.

SUBSOIL HEAT PUMP – 2HP
- 60 GPM @ 80 FT. HO.

RINK FLOOR

3/4" ID SUBSOIL HEAT TUBING INSTALLED IN PAIRS @ 4 PASSES EACH TO MINIMIZE CONNECTIONS

SUBSOIL FROST PREVENTION
PIPING SCHEMATIC
SUBSOIL HEAT SYSTEM

PIPE CHART

<table>
<thead>
<tr>
<th>LTR</th>
<th>QTY</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>14</td>
<td>9'-6&quot;</td>
</tr>
<tr>
<td>B</td>
<td>12</td>
<td>1'-9&quot;</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>20'-0&quot;</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>0'-6&quot;</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>1'-3&quot;</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>V.I.F.</td>
</tr>
</tbody>
</table>

Everything Ice
www.everything-ice.com
888-543-0921  814-487-6056
SUBHEAT ISOMETRIC
LEFT HAND PLANE WRIGHT CONN
30 GALLON EXPANSION TANK
(12"DIA x 5'-0"

TOP VENT

1" SIGHT GLASS

3" 1/4 NPT

DRAIN

UNION

2" 3/4 NPT

2" PVC ADAPTOR THD

45°

PRESSURE RELIEF VALVE -30PSI

2" SLOPE

UNION

2 1/2" 1" 3/8 PIPE TO FLOOR

2" x 1 1/2 FPT

SUB-SOIL HEAT EXPANSION TANK ISO
RIGHT-HAND PLANE
Ice Rink Floor Piping Sand Base
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
NOTE:
1) All elevations measured from lowest point in top of curb (T.O.C.).
2) Excavation of main header trench by G.C.
3) Rink rough grade (by G.C.) to be finished to +0/1” tolerance.
4) Rough grade compaction (by G.C.) minimum 98% by modified proctor.
5) See Perma-Pipe Curb DWG #SF-102 for additional info.
6) Excavation, backfill, & concrete over transmission line trench (by G.C.)

HEADER TRENCH FLOOR CROSS SECTION
PERMANENT SAND BASE RINK
NOTES:
1. ALL ELEV. MEASURED FROM LOWEST POINT IN TOP OF CURB(T.O.C.)
2. PERIMETER CONCRETE MIN. 4000 psi @ 28 DAYS ELEV.
   ±1/8"/10'-0", 3/8" OVERALL.

DETAIL A

PERIMETER CURB/DASHER CROSS SECTION
SAND BASE FLOOR
NEW RINK CURB

ROUGH GRADE

FINISHED FLOOR ELEV.

0" - 1" ENGINEERED FILL
C.C. TO COMPACT TO 98%
BY MODIFIED PROCTOR.

ROUGH GRADE PREP

NEW RINK CURB

#4 REBAR
RUNNING HORIZONTAL

NEW CONCRETE RINK PERIMETER CURB
MIN. 4000 PSI @ 28 DAYS. FINISH TO ±1/8"
IN 10'-0".

EXCAVATION & CURB SECTION

SAND BASE FLOOR
NOTES:
1. ALL ELEV. MEASURED FROM LOWEST POINT IN TOP OF CURB (T.O.C.)
2. PERIMETER CONCRETE MIN. 4000 psi @ 28 DAYS ELEV.
   ±1/8"/10'-0"; 3/8" OVERALL.

RAISED CONCRETE FLOOR/BOX AREA
SAND BASE FLOOR
1/4 AIRCRAFT WIRE, DRAW TIGHTLY, AS POSSIBLE, W/ 3/16 TURNBUCKLES, MAX. 50'-0" OF WIRE

RINK PERIMETER CONCRETE, BY G.C.

CLAMP

1" INSULATION

EYE BOLT, TYP. LOCATE 1'-0" O.C. @ RADIUS

RETURN BEND, TYP.

3/4 PERIMETER CIRCUIT

NYLON WIRE TIE 2'-0" O.C. MIN.

SPACER STRIP, TYP. 2'-6" O.C.

PIPE TUBING 1'-1/2" O.C., TYP.

RADIUS PERIMETER CABLE @ RINK END

PIPE SAND BASE RINK FLOOR
¼" AIRCRAFT WIRE DRAW TIGHTLY AS POSSIBLE W/ ¼" TURNBUCKLES, MAX. 50'-0" OF WIRE.

RINK PERIMETER CONCRETE, BY G.C.

NYLON WIRE TIE, TYP.

EYE BOLT, TYP.
LOCATE 2'-0" O.C.

1" INSULATION

CLAMP

NYLON WIRE TIE
2'-0"O.C. MIN.

3/4" PERIMETER CIRCUIT

RETURN BEND, TYP.

SPACER STRIP
TYP. 2'-6"O.C.

PIPE TUBING
1-1/2"O.C., TYP.

STRAIGHT SECTION PERIMETER CABLE

PIPE SAND BASE RINK FLOOR
RINK END PERIMETER CIRCUIT

PIPE SAND BASE RINK FLOOR

VAPOR BARRIER
WRAP OVER PERIM. & TRIM BEHIND DASHERS.

5/16"UNC. x 4" EYE BOLT, PLATED INSTALL FROM RINK FLOOR GRADE; DO NOT MEASURE FROM TOP OF CURB.

HILTI CY150 EPOXY, OR EQUAL

PERIMETER CONCRETE, BY G.C. 4000psi MIN.

1" PERIMETER INSULATION

NYLON WIRE TIE INSTALL ON EACH RETURN BEND

1/4" AIRCRAFT WIRE

RINK FLOOR INSULATION

TUBING = ICE

3/4" PERIMETER CIRCUIT

SAND FILL

CLAMP

RETURN BEND

SPACER STRIP

RETURN BEND
RINK SIDE PERIMETER CIRCUIT
PIPE SAND BASE RINK FLOOR
PART: T-SPACER
MATERIAL: SANTOPRENE 70089051

<table>
<thead>
<tr>
<th>FINISH</th>
<th>SEE BACK OF PRINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAPE</td>
<td>SYMMETRICAL &amp; PERPENDICULAR</td>
</tr>
<tr>
<td>CUT</td>
<td>MUST HAVE 32 HOLES PER LENGTH</td>
</tr>
<tr>
<td>BOW</td>
<td>N/A</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>PART MUST SEPARATE COMPLETELY AT TOP OF THE HOLE.</td>
</tr>
</tbody>
</table>

A .860 TO .920
B .720 TO .780
C .110 TO .140 TYP
D .750 REF TYP
E 1.500 REF TYP
F .615 TO .635
G 47-1/2" TO 48"

NOTE: MUST HAVE 32 HOLES PER LENGTH.

PIPE SPACER STRIP
NOTE:
1) MAT'L: DMP 122 COPPER

U BEND
PIPE SYSTEM
RINK AREA

MAIN PIPE HEADER, TYP. (3)

FACE OF CONCRETE PERIMETER

1" TH'K PERIMETER INSULATION, BY RS

3/4" PRESSURE TREATED PLYWOOD SHEET INSTALLED BY BRS TO RETAIN RINK FLOOR CONSTRUCTION

-36.00" TRENCH ELEV. (BY G.C.)

2" SCH 80 PVC SUBSOIL HEAT TRANNY LINES

2" BUTTERFLY VALVE, TYP. (2)

0.00" HOT SLAB ELEV. (BY G.C.)

2" WIDE AREA IN CONC. SLAB TO BE RECESSED 1/4" BY G.C. TO RECEIVE STEEL COVER PLATE (SUPPLIED BY G.C.)

6" SCH 80 PVC PIPE CONNECTION TO MAIN HEADER, TYP. (2) - TO BE INSTALLED BY BRS AT TIME OF RINK FLOOR CONSTRUCTION

APPLY 1" INSULATION (NOT SHOWN)

FLEX CONNECTOR @ TRANSITION FROM STEEL TO PVC PIPE

6" BUTTERFLY VALVE, TYP. (2)

6" SCH 40 STEEL TRANSMISSION LINE FROM MECH. ROOM, TYP. (2)

G.C. TO FORM OUT PIT AFTER TRANSMISSION LINES ARE INSTALLED BY BRS. ALLOW SUFFICIENT SPACE FOR VALVE HANDLE CLEARANCE.

© RINK/PIT

RINK SERVICE PIT

PLAN VIEW
Ice Rink Transmission Line Piping
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
A 4’-0” x 4’-0” area of hot slab to be formed out at center line of rink for valve access.

Transmission line service pit detail.
NOTE: EXCAVATION, FORMING, & CONCRETE WORK
FOR TRENCH BY G.C.

1/4" SMOOTH STEEL COVER PLATE (BY G.C.)
GRADE LINE

48.00"

27.50" 36.00"

PRESSURE TREATED 4"x4"
CRIBBING: 10'-0" O.C.

SUB-SOIL HEAT LINES
2" SCH 80 PVC

PITCH TRENCH TO DRAIN

6" SCH. 80 PVC TRANSMISSION LINES W/1" THK URETHANE INSULATION & VAPOR JACKET.

6" TRANSMISSION LINE TRENCH CROSS SECTION
NOTE: EXCAVATION, BACKFILL, & CONCRETE OVER TRANSMISSION LINE TRENCH BY G.C.

GRADE LINE

48.00”

27.50”

36.00”

SAND OR GRAVEL (BY G.C.)

TRENCH

COMPACTED SAND FILL (BY G.C.)

SUB-SOIL HEAT LINES
2” SCH 80 PVC

PRESSURE TREATED 4”x4” CRIBBING; 10'-0” O.C.

6” SCH. 40 STEEL TRANSMISSION LINES W/2” THK. URETHANE INSULATION & VAPOR JACKET.

6” TRANSMISSION LINE TRENCH CROSS SECTION
**EXCAVATION, BACKFILL & CONCRETE OVER TRENCH BY G.C.**

DOWEL TO EXISTING FLOOR WHEN INSTALLED AFTER SLABS ON GRADE (BY G.C.)

2" I.D. TYPE L COPPER SNOW MELTING PIT TRANSMISSION LINES, BY P.C. ISOLATE/SLEEVE PIPING TO AVOID CONTACT W/CONCRETE.

SAND FILL

**SNOW PIT SUPPLY/RETURN LINES**
Ice Rink Snow Melting Pit Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
SNOW PIT SYSTEM PIPING DIAGRAM
SNOW MELTING PIT W/EJECTOR PUMP

NOTE: EXCAVATION, FORMING & POURING OF SNOWPIT BY G.C. PIT MUST BE WATER TIGHT.

ACCESS COVER

4" DIA. DRAIN

OPERATING WATER LEVEL

SNOWPIT GRID

12" MIN.

EJECTOR PUMP
10 GPM MIN.

OPTIONAL 2" DIA. DRAIN

OPTIONAL 2" REMOTELY OPERATED VALVE

CONCRETE SPEC. & REINFORCEMENT PER ENGINEER

TO SEWER

48.00"
PIT AREA
TWIN RINK 3'-0"x20'-0"x4'-0"
SINGLE RINK 3'-0"x8'-0"x4'-0"

NOTE: EXCAVATION, FORMING & POURING
OF SNOWPIT BY G.C. PIT MUST
BE WATER-TIGHT.

3' SNOWPIT CROSS SECTION

63"-OUTSIDE WHEEL TRACK
(VERIFY DIMENSION WITH RESURFACER SUPPLIER)

ZAM CURB
(TYP. 2)

OPERATING WATER LEVEL

4" I.D. SCH 40 STEEL
DRAIN PIPE
(REMOVABLE) BY P.C.

CONCRETE SPEC. & REINFORCEMENT
PER ENGINEER

4" TH'D COUPLING
FLUSH W/ SURFACE
OF CONCRETE. COORDINATE
LOCATION W/ GRID DESIGN.
(BY P.C.)

BOLT TO SLAB
2'-0" OC

SNOW PIT GRID

12" MIN

OPTIONAL DRAIN LOCATION

48"
GRID FOR 3'x8' SNOWPIT
PITCH CONCRETE FLOOR FROM RINK TO PIT TYP. BOTH SIDES.

*VERIFY RESURFACER WHEEL TRACK DIM. W/SUPPLIER.

8'-0"

REMOVABLE WHEEL GUIDE CURB

63" MIN

3'-0"

FINISHED OPENING

STANDARD SNOW MELTING PIT
PLAN VIEW SINGLE RINK
DRIVE OVER SNOW MELTING PIT
PLAN VIEW

NOTE:
OWNER'S ENGINEER SHALL
CONSULT W/RESURFACER SUPPLIER
& CONFIRM DESIGN OF ALL
STRUCTURAL COMPONENTS.
GRID FOR 8'X10' SNOW PIT
Ice Rink Dehumidification
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
AIR HOOD WITH ADJUSTABLE BLADES

Air deflection can be:
- 45 degrees up
- 22 1/2 degrees up
- 22 1/2 degrees down
- 45 degrees down

7/8" dia. mounting holes
Est. unit wt. 2920 lbs.

DEHUMIDIFIER
NOTES:
1) UNITS MUST BE INSTALLED LEVEL BOTH WAYS.
2) SEE START-UP/MAINTENANCE CHECKLIST & SET ALL CONTROLS CORRECTLY BEFORE STARTING.
3) CONSULT PROJECT ENGINEER FOR STAND CONSTRUCTION OR ROOF LOAD CAPABILITY.
4) SEE DEHUMIDIFIER DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.
5) LOCATE UNITS MINIMUM 5'-0" FROM ANY AIR FLOW OBSTRUCTION. DISCHARGE PATH MUST BE CLEAR ENTIRE LENGTH OF ARENA.

TYPICAL DEHUMIDIFIER LAYOUT/AIR FLOW PATTERN.
REFRIGERATED MODEL.
DEHUMIDIFIER DRAIN DETAIL
REFRIGERATED MODEL

1-1/4" DRAIN FROM DEHUMIDIFIER

PIPE CLAMP, TYP

2"x1-1/4" REDUCER COUPLING

DETAIL A

BUILDING WALL

1% SLOPE

6"

DEHUMIDIFIER

RINK AREA

TRAP

CLEANOUT

1-1/4" I.D. DRAIN LINE—TYPE L COPPER OR SCH 80 PVC

CONDENSATE CHECK POINT, SEE DETAIL A

HEAT-TRACE ALL DRAIN LINES EXPOSED TO FREEZING. HEAT TRACE TO OPERATE @ 35°F & BELOW.

DRAIN TO EXTERIOR OR SEWER, AS DETERMINED BY CODE.
ALL THREAD ROD, (TYP. 4), DESIGN BY OWNERS ENGINEER – INSTALL BY G.C.

DEHUMIDIFIER MODEL:

VIBRATION PROTECTION ON FASTENERS, BY ENGINEER

FACTORY INSTALLED MOUNTING ANGLES – BOLT OR WELD TO SUPPORT, BY G.C.

SUPPORT CHANNEL, BY G.C.

SEE DETAIL A

12’-0” TO 15’-0”

*SEE CERTIFIED DRAWINGS FOR UNIT WEIGHTS & DIMENSIONS.

SEE DETAIL A

DEHUM. ELEC.

ALL THREAD, BY G.C.

BOLT UNIT TO CHANNEL, TYP. (4)

ALL THREAD RODS MUST MOUNT OUTSIDE UNIT FOOTPRINT TO ALLOW ELEC. PANEL TO OPEN.

SIDE VIEW

ALL THREAD ROD

DEHUMIDIFIER MOUNTING ANGLE

SHIM

LOCK NUT PER ENGINEER

SUPPORT CHANNEL

DETAIL A

DEHUMIDIFIER ROOF SUSPENSION DRAWING

REFRIGERATED MODEL
* AVOID DUST, FUMES, EXHAUST, RAIN WATER, ETC. @ AIR INTAKE.

NOTE: DUCT CONFIGURATION & DESIGN SUBJECT TO LOCAL CODE REQUIREMENTS.
DEHUM ROOF INTAKE LAYOUT
REFRIGERATED MODEL

OUTSIDE AIR FROM ROOF

* INSTALL CAP ON INTAKE DUCT TO PREVENT RAIN, SNOW, BIRDS, ETC. FROM ENTERING DUCT.

INSIDE AIR FROM RINK AREA

ACTUATOR MOTOR

INSIDE AIR DAMPER

OUTSIDE AIR DAMPER

DUCTWORK—INSULATE TO MIN. R-11 & COVER W/POLY VAPOR BARRIER, OR AS REQ’D BY CODE.

AIR FILTER ACCESS

DEHUMIDIFIER

MAX. 1/2” EXTERNAL STATIC.

NOTE: DUCT CONFIGURATION & DESIGN SUBJECT TO LOCAL CODE REQUIREMENTS.
DEHUMIDIFIER MOUNTING
STAND DRAWING
REFRIGERATED MODEL

DEHUMIDIFIER MODEL:

*SEE CERTIFIED DRAWINGS FOR UNIT WEIGHTS & DIMENSIONS.

FACTORY INSTALLED MOUNTING ANGLE—BOLT OR WELD TO SUPPORT, BY G.C.

SUPPORT STAND DESIGN BY OWNER’S ENGINEER — INSTALL BY G.C.

BASEPLATE FOR ANCHOR TO EXISTING SLAB.

12’-0” TO 15’-0”

5’-0” MIN.
MOTION SENSOR CONTROL DIAGRAM
LOCKER ROOM HEATING, VENTILATION, & LIGHTING

1 115 VAC CONTROL POWER

LOCKER ROOM #1 MOTION SENSOR
LOCKER ROOM #1 CONTROL RELAYS R1, R15, R16

LOCKER ROOM #2 MOTION SENSOR
LOCKER ROOM #2 CONTROL RELAYS R2, R25, R36

LOCKER ROOM #1 LIGHT
LOCKER ROOM #1 EXHAUST FAN
LOCKER ROOM #1 TEMP CONTROL
LOCKER ROOM #1 HEATER

LOCKER ROOM #1 FREEZE SAFETY TEMP CONTROL

LOCKER ROOM #2 LIGHT
LOCKER ROOM #2 EXHAUST FAN
LOCKER ROOM #2 TEMP CONTROL
LOCKER ROOM #2 HEATER

LOCKER ROOM #2 FREEZE SAFETY TEMP CONTROL

SHARED SHOWER ROOM LIGHT

NOTE: FOR 277 VAC APPLICATIONS, R1 & R2 MUST BE 3 POLE RELAYS FOR REQUIRED ADDED CONTROL VOLTAGE CONTACTS.
Ice Rink Dasherboards
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
TEMPERED GLASS OR ACRYLIC SHIELDING

HEAVY DUTY ALUMINUM GLASS SUPPORT—ONE PIECE OR TWO PIECE OPTION.

CONTINUOUS THERMOPLASTIC GLASS CUSHION

STEEL GLASS SUPPORT SPINE

GLASS SUPPORT SLEEVE

5/8" UNC THROUGH-BOLT

2"x4" RECTANGULAR STEEL TUBE END SUPPORT

6"x8" STEEL CUSSET

8"x6" STEEL BASE PLATE

ALL STEEL COMPONENTS HOT-DIP GALVANIZED, EXTERNAL & INTERNAL

3/4" POLY HANDRAIL—MATTE FINISH—INDOORS (OWNERS COLOR CHOICE)

1/2" POLY DASHER FACING

STAINLESS STEEL COLOR MATCHED FASTENERS THROUGHOUT

1/4" POLY KICKPLATE, (OWNERS COLOR CHOICE)

THERMORUBBER RINK SEAL GASKET, (CONCRETE FLOOR ONLY)

OPTIONAL 1/4" POLY DASHER BACKING (OWNERS COLOR CHOICE)

HEAVY DUTY 2"x4" RECTANGULAR STEEL TUBING FRAME CONSTRUCTION.

STANDARD PROFESSIONAL STEEL FRAME DASHER
STEEL TUBING SYSTEM W/POLY ONLY
ALL STEEL COMPONENTS
HOT-DIP GALVANIZED,
EXTERNAL & INTERNAL

1/2 UNC x 2 1/2 HEX TAP BOLT
1 1/2 USS WASHER
1/2 UNC HIGH TENSILE CONCRETE EXPANSION ANCHOR, TYP.(3)

5/8 UNC HEX LOCK NUT
5/8 USS WASHER
3/8 x 3 DIA. GALV. STEEL DOCK WASHER

2" X 4" RECTANGULAR STEEL TUBE END SUPPORT

1/4 x 8" X 6" STEEL BASE PLATE W/ 1/4 x 6" X 8" GUSSET.

HEAVY DUTY 2" X 4" RECTANGULAR TUBING FRAME CONSTRUCTION.

STANDARD PROFESSIONAL STEEL FRAME DASHER
ASSEMBLY DRAWING
STANDARD PROFESSIONAL STEEL FRAME DASHER SECTION
STEEL TUBE SYSTEM W/POLY ONLY
Ice Rink General Application
Design Drawings

Everything Ice
www.everything-ice.com
(888)-543-0921
Typical Ice Rink Concession Stand Layout
Typical Ice Rink Concession Stand Layout
Typical Ice Rink Concession Stand Layout
# TYPICAL RENTAL SKATE QUANTITY BREAKDOWN

<table>
<thead>
<tr>
<th>Sizes</th>
<th>Hockey</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>9c</td>
<td>N/A</td>
<td>0.0%</td>
</tr>
<tr>
<td>10c</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>11c</td>
<td>4</td>
<td>1.0%</td>
</tr>
<tr>
<td>12c</td>
<td>4</td>
<td>1.0%</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>1.0%</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>2.0%</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>5.0%</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>6.0%</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>9.0%</td>
</tr>
<tr>
<td>5</td>
<td>36</td>
<td>9.0%</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>10.0%</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
<td>10.0%</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
<td>10.0%</td>
</tr>
<tr>
<td>9</td>
<td>40</td>
<td>10.0%</td>
</tr>
<tr>
<td>10</td>
<td>40</td>
<td>10.0%</td>
</tr>
<tr>
<td>11</td>
<td>32</td>
<td>8.0%</td>
</tr>
<tr>
<td>12</td>
<td>32</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Per Centage Totals: 400 (100%) 400 (100%)
Typical Rental Skate Storage Rack Design
As you can see, we use 40 light fixtures. The different shades represent the three breakers (switches) and the fact that they are spread evenly as opposed to switching rows which allows us to dim the light level evenly for the events that do not require as much light. The four corner fixtures are brought in slightly so no shadow is cast and reflection from the glass is not an issue.

Ice Rink Lighting Circuiting
Cold Water Supply

1-1/2" Supply Line

1-1/2" Supply Line W/ Hose Connection

1-1/2" Fire Hose For Ice Flooding Process

1" Supply Line

Thermometer, Typical

Manual Valve, Typical

1" Supply Line W/ Hose Connection

1" Industrial Hose For Resurfacer Filling

Typical Ice Rink Water Supply

Hot Water Supply
### Capacities/Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Snow Tank</th>
<th></th>
<th>Water</th>
<th></th>
<th>Hydraulics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Volume</td>
<td>2.83 m³ (100 cu. ft.)</td>
<td></td>
<td>Ice Making</td>
<td>727 L (192 USG, 150 IMP)</td>
<td></td>
</tr>
<tr>
<td>Compacted</td>
<td>3.54 m³ (125 cu. ft.)</td>
<td></td>
<td>Wash Water</td>
<td>273 L (72 USG, 90 IMP)</td>
<td></td>
</tr>
<tr>
<td>Excess Water</td>
<td>416 L (110 USG, 92 IMP)</td>
<td></td>
<td>Total</td>
<td>1000 L (264 USG, 220 IMP)</td>
<td></td>
</tr>
</tbody>
</table>

#### Conveyor System
- Horizontal Auger: 25.4 cm (10 in.) dia.
- Vertical Auger: 25.4 cm (10 in.) dia.

#### Overall Length
- Snow Tank Down: 4.04 m (13.2 ft.)
- Snow Tank Up: 5.03 m (16.5 ft.)

#### Overall Height
- Snow Tank Down: 2.16 m (7 ft. 2 in.)
- Snow Tank Up: 3.31 m (10 ft. 11 in.)

#### Overall Width
- 2.13 m (84 in.)

#### Wheelbase
- 1.95 m (77 in.)

#### Wheel Track
- 1.37 m (54 in.)

#### Turning Radius
- At Conditioner: 4.86 m (16 ft.)

#### Shaving Blade
- 1.27 x 12.7 x 19.6 cm
- ½ x 5 x 7.7 in.

#### Vehicle Weight
- Empty: 2939 kg (6480 lb.)
- w/Water: 3937 kg (8680 lb.)

### Store Room/Facilities

Adequate ventilation of any engine emissions must be provided in the storage room and the ice rink(s). The storage room should be heated and have adequate floor drainage. The room should be located close to an end of the ice rink(s) to minimize turning and ramps, and include outdoor access for snow dumping and machine/building maintenance. All doors should be a minimum of 2.00 m (6 ft. 7 in.) wide by 2.00 m (6 ft. 7 in.) high. Dimensions of the room should include a minimum 1.22 m (4 ft.) clear space on all sides of the machine.

A snow melting pit should be capable of processing 3.54 m³ (125 cu. ft.) of snow per hour, per ice surface. Ice making water requirements are approximately 737 L (200 USG, 167 IMP) per hour, per ice surface. Most operators, especially in cold climates, use hot water for their ice making that is heated to 60°C to 71°C (140°F to 150°F).

This brochure has been prepared only as a general guide to the customer. Every effort has been made to ensure that all information is correct at the time of printing. Zamboni reserves the right to change prices, colors, materials, specifications and models. Some features described, or shown, may be optional at extra cost. Some options are required in combination with other options.

---

**Zamboni**

Distributed by:

**Everything Ice™**

www.everything-ice.com

888-543-0921  814-887-6056

Zamboni is a registered trademark.

Copyright 1995.

G: 995 • 1M
Printed in Canada
In the early 1940’s, Frank Zamboni saw the need for a machine to quickly produce an attractive sheet of ice at his rink in Southern California. Through his experiments and persistence, the Zamboni ice resurfacer was invented. The machine he developed for his own facility was soon recognized as being indispensible for an efficient operation and has had a tremendous impact on skating and ice sports. Zamboni ice resurfacers continue as the overwhelming choice of arena operators throughout the world... Frank Zamboni’s belief in ongoing product improvement and innovation lives on today in the company he founded.

The employees of Zamboni honor the spirit of Frank Zamboni by closely examining every detail on the Zamboni ice resurfacer and then putting it to the test. There is no part on this machine which has not faced the challenge: “How can we make it better?” Most companies may think that this commitment to detail is unnecessary, but we know that it is this “innovative spirit” that made Frank Zamboni what he was then... and makes Zamboni what it is now:

The maker of the world’s leading ice resurfacing machine.

Nothing else is even close.

The employees of Zamboni honor the spirit of Frank Zamboni by closely examining every detail on the Zamboni ice resurfacer and then putting it to the test. There is no part on this machine which has not faced the challenge: “How can we make it better?” Most companies may think that this commitment to detail is unnecessary, but we know that it is this “innovative spirit” that made Frank Zamboni what he was then... and makes Zamboni what it is now:

The maker of the world’s leading ice resurfacing machine.

Nothing else is even close.

Proven Value

The highest residual value speaks to Zamboni’s construction and durability. The industry’s lowest cost of operation reflects Zamboni’s superior design and execution.

Tough materials and fabrication. Strong and hardy components. Efficient and powerful engines, motors and pumps. Zamboni remains the overwhelming choice for professional, private and municipal ice rink operators throughout the world.

Uncompromising and Unparalleled

Zamboni’s powerful conveyor system provides the industry’s highest snow compaction.

This brochure is a PDF internet version posted on our website for reference only. The Zamboni Company assumes no responsibility for its content or use. For product and sales information, please contact the Zamboni Company at www.zamboni.com.
Our Attention to Detail is Legendary

Nothing about the Zamboni ice resurfacer is taken for granted. No detail is overlooked, which is why Zamboni remains the overwhelming industry leader.

Our Attention to Detail is Legendary

Nothing else is even close

Proven Reliability

Operating an ice resurfacer in a busy single or double rink is a tough job in a harsh environment. Hourly cold starting cycles often extend for 18 hours and can severely test any equipment. Zamboni ice resurfacers meet this challenge every day. Our network of dealers around the globe stands ready to provide timely, excellent support.

“The principal product you have to sell is the ice itself.”
- Frank Zamboni

This brochure is a PDF internet version posted on our website for reference only. The Zamboni Company assumes no responsibility for its content or use. For product and sales information, please contact the Zamboni Company at www.zamboni.com
Knowledgeable arena operators know that a quality sheet of ice is an arena’s primary selling feature. Successful operators choose Zamboni ice resurfacing machines because they know Zamboni is the only real choice for unparalleled shaving and snow conveyor performance. Every feature on the 500 Series is deliberately designed to make ice resurfacing easier and to ensure that the result is always a perfect sheet of ice.

Frank Zamboni wouldn’t have wanted it any other way.
NOTES
1. WALL BOXES MUST BE GROUNDED TO
   THE SAME GROUND OR GUARANTEE IS VOID
2. CONTROL CABLE: RG-59/U 1/4" DIAMETER.
   IF ANY CABLE LENGTH EXCEEDS 300' CONTACT
   THE NEVCO FACTORY. CABLE VOLTAGE IS
   5 VOLTS. FOR CONDUIT INSTALLATION
   1/2" CONDUIT RECOMMENDED
3. FOR ELECTRICAL POWER REQUIREMENTS OF
   EACH ITEM REFER TO OTHER DRAWINGS OR
   SPECIFICATIONS.
4. WALL BOX 4" x 2 1/8" x 2 1/8" W/ COVER
5. CONTROL CABLE 25' W/ CONNECTORS
6. WALL BOX 4" x 2 1/8" x 2 1/8" W/ COVER

EXTRA ITEMS TO ORDER FROM NEVCO
7. 009-0084 (2 EA) LENGTHS REQUIRED

CERTAIN CONNECTORS, KNOBS AND CABLES
ARE FURNISHED WITH THE EQUIPMENT SHOWN.
ONLY THE EXTRA ITEMS ARE NEEDED TO
COMPLETE THIS SYSTEM.

HOCKEY
DUAL SCOREBOARD SYSTEM

NEVCO EQUIPMENT CO.
GREENVILLE, OHIO 45331

DRAWING NO: C5931

DATE: 7/22/93
NOTES
1. WALL BOXES MUST BE EARTH GROUNDED TO THE SAME GROUND OR GUARANTEE IS VOID.
2. CONTROL CABLE RG-59/U, 1/4" DIAMETER. IF ANY CABLE LENGTH EXCEEDS 300' CONTACT THE NEVCO FACTORY. CABLE VOLTAGE IS 5 VOLTS. FOR CONDUIT INSTALLATION 1/2" CONDUIT REQUIRED.
3. FOR ELECTRICAL POWER REQUIREMENTS OF EACH ITEM REFER TO OTHER DRAWINGS OR SPECIFICATIONS.
4. WALL BOX 4" x 2 1/8" x 2 1/8" W/ COVER
5. CONTROL CABLE 25' W/ CONNECTORS
6. WALL BOX 4" x 2 1/8" x 2 1/8" W/ COVER

EXTRA ITEMS TO ORDER FROM NEVCO
309-0084 (1 EA) LENGTH REQUIRED

CERTAIN CONNECTORS, RELAYS AND CABLES ARE SHOWN WITH THE EQUIPMENT SHOWN. ONLY THE EXTRA ITEMS ARE NEEDED TO COMPLETE THIS SYSTEM.
NOTE
1. 4" x 2 1/8" x 2 1/8" BOX AND COVER

2. POWER CORD FOR GL-45
   120V, 60Hz, 5A, 12W, 50/60Hz

3. THE LOW VOLTAGE LAMP
   FIXTURE MAY BE LOCATED
   SEPARATE FROM THE
   GL-45 BOX IF NEEDED

4. 1/4" MA. CONTROL CABLE
   ORDER LENGTH REQUIRED
   FROM NEVCO

5. PLUG-IN FOR THE GJS-5
   HAND HELD SWITCH

NOTE
THE POWER CORDS ON THE GL-45 BOX MAY
BE REMOVED FOR CONDUIT INSTALLATION.
REFER TO CORD FOR ALTERNATE MOUNTING
METHODS.

1/4" x 2 1/8" x 2 1/8" BOX AND COVER

4' x 2 1/8" x 2 1/8" BOX AND COVER

1/4" x 2 1/8" x 2 1/8" BOX AND COVER

TOP OF SCREWHEADS

COAL LIGHTS
12V, 24, 50/60Hz

COAL LIGHTS
12V, 2A, 50/60Hz

GREEN LENS

RED LENS

POWER CORD
120V, 0.1A, 12W, 50/60Hz PLUG

"T" CONNECTOR

CABLE AND JUNCTION BOX
ILLUSTRATION
FOR MODEL
(GL-45)

NEVCO

DRAWING NO. CB209

3/11/02
PLUG IN FOR REMOTE HAND HELD SWITCH ON EITHER SIDE OF UNIT

ALPHA-NUMERIC DISPLAY

OPTIONAL REMOTE HAND HELD SWITCH (VARY TYPE DEPENDING FOR EITHER SHOT CLOCK OR DELAY OF GAME TIMERS.)

OPERATOR KEYBOARDS

CHANGEABLE KEYBOARD-OVERLAY

OPERATOR KEYBOARDS

RECESSED POWER SWITCH

NOTE

REMOTE SWITCHES WILL OPERATE FROM EITHER RECEPTACLE.

file://C:\WINDOWS\TEMP\dduflrvl.dwf
120V, 50/60HZ

2 L1K - HOT
2 N1T - NEUTRAL
1 GN - GROUND

CONNECT POWER PER NATIONAL ELECTRICAL CODES AND LOCAL CODES.

OVERCIRCUIT PROTECTION MAY BE REQUIRED.

FOR CURRENT REQUIRED SEE SCHEMATIC SPECIFICATIONS FOR THE PARTICULAR MODEL.

POWER HOOK UP USING CONDUIT FOR INDOOR LENS
SILENTLINE CONNECTION BY TWO MODULES SINGLE PHASE