ACOUSTIC ISOLATION DETAILS

Icelandic National Concert and Conference Center
Reykjavík, Iceland

January 5, 2007

Artec Report No.  7742
Artec Project No.  3760

Distribution:  Stefán Hermannsson  East Harbour Project
Stefán Þórarinsson, Helgi Gunnarsson  Portus Group
Klaus Holm Madsen, Osbjorn Jacobsen  HLT
Geert Stryg  Rambøll
Gunnlaugur Kristjánsson, Sigurður Ragnarsson, Páll Pálsson  IAV
1. **Introduction**

The purpose of this report is to provide the Architect and the Engineers with acoustic isolation details. The details should be incorporated into the Detailed Design, or modified to suit a particular situation, including building practices in Iceland. Artec will review modifications or alternatives proposed by the team. We will all save time and energy if changes or alternatives are proposed for discussion before being committed to the document.

Consider these details to be advice, and incorporate them into the various disciplines’ documents as appropriate. Artec will work with the design team to create specific details where less typical conditions occur.

We have divided this report into several sections corresponding to:

- Structural Details
- Mechanical Details
- Electrical Details
- Window Details
- Miscellaneous Details
2. **Structural Details**

SD1230  Perimeter Isolation of Non-Grade Slab - Section  
SD1240  Acoustical Joint - Concrete on Metal Deck Construction  
SD1250  Acoustic Joint in Suspended Concrete Slab with Proprietary Joint Cover  
SD1260  Acoustic Joint Between Stage and Loading Area  
SD1310  Acoustic Joint—Plan Section  
SD1320  Acoustic Joint—Plan Section  
SD1340  Acoustical Joint at Metal Decking  
SD1350  Wall/Beam Intersection with Metal Decking – Noise Critical Walls  
SD1410  Seal at Head of Masonry Noise Critical Walls  
SD1440  Seal at Rigid Joint (Not Acoustical Joint)  
SD2110  Duct Penetration Through Single Sound Isolating Wall (Concrete Wall)  
SD2120  Duct Penetration Through Single Sound Isolating Wall (Block Wall)  
SD2130  Duct Penetration at Underside of Slab  
SD2140  Duct Penetration Through Double Masonry Sound Isolating Walls  
SD2150  Duct Penetration Through Double Sound Isolating Walls (Masonry + GWB)  
SD2160  Duct Penetration Through Single/Double Sound Isolating Walls (GWB)  
SD2170  Penetration at Bottom of Duct Shaft  
SD2210  Wall Penetration for Pipe or Single Conduit  
SD2220  Pipe/Conduit Penetration Through Single/Double Sound Isolation Walls  
SD2320  Wireway Penetrations through Sound Isolation Walls for Conduits  
SD2330  Wireway Penetrations through Sound Isolating Walls for Conduits  
SD2350  Wall Penetration for Pipe
3. Mechanical Details

SD3120 Fan Isolation (Suspended)
SD3160 Submersible Pump Isolation
SD3170 Water Closet Isolation
SD3210 Gypsum Board Lagging of Ducts
SD3220 Gypsum Board Lagging of Ducts Full Perimeter
SD3230 Air Diffusing Plates
SD3250 Elbow, Smooth Radius with Splitter Vanes – Rectangular Duct
SD3310 Fire Damper—Single Isolating Wall
SD3320 Fire Damper—Double Isolating Wall
SD3340 Smoke Exhaust System
SD3350 Sound Isolating Smoke Vent (after BILCO ACDSH-4890)
SD3410 Acoustic Isolation Lagging of Pipes
4. Electrical Details

SD4110 Transformer Isolation (on Grade Slab)
SD4120 Transformer – Internal Spring Isolator
SD4130 Transformer on Inertia Base
SD4140 Isolation of Suspended Transformer
SD4150 Step Light Transformer Isolation
SD4210 Dimmer Rack Isolation
SD4310 Acoustically Sealed Pull Box
SD4320 Acoustically Sealed Pull Box
5. Isolator Details

SD5110 Constrained Spring & Neoprene Mounts – Type CSNM
SD5210 Double Deflection Neoprene & Spring Isolation Hanger – Type SPNH
SD5310 Spring & Neoprene Mount (SPNM)
SD5410 Neoprene Mounting with Captive Steel Inserts – Type RBA
SD5510 Double Deflection Neoprene Isolation Hanger – Type DDNH
SD5610 Double Deflection Neoprene Mounts (DDNM)
SD5710 Waffle Pad (WP)
SD5720 Metal & Waffle Pad (MWP)
SD5810 Concrete Inertia Base
SD5820 Steel Inertia Base
SD5910 Resilient Hold-down Assembly
SD5920 Hydraulic Pipe Isolation Assembly
SD5930 Pipe Flexible Connectors
6. Window Detail

SD7310 Acoustically Sealed Glazing Detail
7. **Miscellaneous Details**

- SD8210  Rigging Cable Pass-through for Noise Critical Wall
- SD8220  Capped Slab Penetration for Broadcast Cables
- SD8230  Double Door Closure for Broadcast Cable Rolite Route
- SD8240  Acoustic Caps for Canopy Lift Line Sleeved Holes
STEP 1
POUR SECOND SLAB AGAINST POLYSTYRENE

STEP 2
REMOVE POLYSTYRENE.
STUFF GAP WITH GLASS FIBER AND FINISH WITH NON-HARDENING SEALANT OR FIRESTOP

CANTILEVERED FLOOR SLAB

(2) LAYERS 25mm (1") EXPANDED POLYSTYRENE WITH LAPPED JOINTS

STRUCTURAL WALL OR COLUMN

ARCHITECTURAL JOINT COVER (IF REQUIRED) FIXED TO FLOOR ONLY

CAULK ON POLYSTYRENE FOAM ROD

FIBERGLASS OR MINERAL WOOL
CAULK ON POLYETHYLENE FOAM ROD (BOTH SIDES OF JOINT) VOID PACKED WITH GLASS FIBER

50mm (2"")

WALL OR COLUMN

PROJECT EAST HARBOUR PROJECT REYKJAVIK, ICELAND

Title ACOUSTICAL JOINT—CONCRETE ON METAL DECK CONSTRUCTION

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<tr>
<th>Project</th>
<th>Scale</th>
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<th>Checked by</th>
<th>Date</th>
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<td>3760</td>
<td>GMG/TRP</td>
<td>TAP</td>
<td>19DEC06</td>
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Report No.: 7742
Drawing No.: SD1240
BLOCK JOINT FOR JOINT COVER

(2) LAYERS 25mm (1") EXPANDED POLYSTYRENE WITH STAGGERED JOINTS

PROPRIETARY JOINT COVER (IF REQUIRED) MUST NOT BE RIGIDLY CONNECTED AT BOTH SIDES OF JOINT

STEP 1
POUR SECOND SLAB AGAINST POLYSTYRENE

STEP 2
REMOVE POLYSTYRENE, STUFF GAP WITH GLASS FIBER AND FINISH WITH NON-HARDENING SEALANT OR FIRESTOP
AUTOMATIC DOOR SEAL

CONCRETE CURB

STAGE LOCATION (DETAILS WILL VARY WITH LOCATION)

SOUND DOOR

10mm (\(\frac{3}{8}\)) STEEL PLATE SHIMMED FLUSH & FLAT

6mm x 36mm x 1250mm (\(\frac{1}{4}\)" x 1\(\frac{1}{2}\)" x 50") DURO NEOPRENE STRIP

12mm (\(\frac{1}{2}\)) GAP (MAXIMUM)

JOINT COVER EXTRUSION

50mm (2") ACOUSTIC JOINT IN STRUCTURE STUFFED WITH GLASS FIBER, SEALED ENDS

STAGE

SLL/LOADING AREA

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NEW YORK, NY 10001
(212) 242-0120

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Project | EAST HARBOUR PROJECT
REYKJAVIK, ICELAND
Title | ACOUSTIC JOINT BETWEEN STAGE & LOADING AREA
Scale | NTS
Drawn by | GMG/TRP
Checked by | TAP
Project No. | 3760
Report No. | 7742
Drawing No. | SD1260
Date | 19DEC06
Rev. |
(2) LAYERS 25mm (1") EXPANDED POLYSTYRENE, STAGGERED JOINTS. BUILT IN WITH WALL CONSTRUCTION

POURED CONCRETE

CONCRETE WALL OR COLUMN

STEP 1
POUR SECOND WALL AGAINST POLYSTYRENE

POURED CONCRETE

CONCRETE WALL OR COLUMN

CAULK ON POLYETHYLENE FOAM ROD

STEP 2
REMOVE POLYSTYRENE. PACK GAP WITH GLASS FIBER AND FINISH BOTH SIDES WITH NON-HARDENING SEALANT OR FIRESTOP

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<th>Project</th>
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<td>Project No.</td>
<td>3760</td>
<td>Report No.</td>
<td>7742</td>
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(2) LAYERS 25mm (1") EXPANDED POLYSTYRENE. STAGGER JOINTS. BUILT IN WITH WALL CONSTRUCTION.

POURED CONCRETE

STEP 1
POUR SECOND WALL AGAINST POLYSTYRENE

CONCRETE WALL OR COLUMN

GLASS FIBER

CAULK ON POLYETHYLENE FOAM ROD

POURED CONCRETE

STEP 2
REMOVE POLYSTYRENE, PACK GAP WITH GLASS FIBER AND FINISH BOTH SIDES WITH NON-HARDENING SEALANT OR FIRESTOP

NOTE:
STAGGER JOINTS IN POLYSTYRENE TO PREVENT CEMENT FROM FLOWING ACROSS JOINT

Project Title
EAST HARBOUR PROJECT ACOUSTIC JOINT
REYKJAVIK, ICELAND PLAN SECTION

Scale NTS
Report No. 7742
Drawing No. SD1320

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Date 19DEC06
RAKED AND CAULKED

BEAM

MORTAR, FILL IN DECKING VOIDS ABOVE BEAM & WALL

MASONRY WALL

FILL VOID BETWEEN ROOF DECK AND STEEL BEAM (OR MASONRY WALL) WITH MORTAR. RAKE A 12mm (\(\frac{1}{2}\)) x 12mm (\(\frac{1}{2}\)) GROOVE IN MORTAR & SEAL WITH CAULK BEAD.

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<tr>
<th>Project</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>WALL/BEAM INTERSECTION WITH METAL Decking NOISE CRITICAL WALLS</td>
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CONTINUOUS CAULK ON POLYETHYLENE FOAM ROD

ALTERNATE DETAIL WHEN NO HEAD RESTRAINT REQUIRED

25mm (1") GAP PACKED FULL DEPTH WITH GLASS FIBER

SEALANT ON FOAM ROD

HEAD RESTRAINT ANGLES WITH 6mm (0.25") NEOPRENE SPONGE BACKING
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<th>Project</th>
<th>Scale</th>
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<td>SEAL AT RIGID JOINT (NOT ACOUSTICAL JOINT)</td>
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PACK FULL DEPTH WITH GLASS FIBER
CAULK ON POLYETHYLENE FOAM ROD
ACOUSTICAL LINING
DUCT

25mm (1")
PACK FULL DEPTH WITH GLASS FIBER

CAULK ON POLYETHYLENE FOAM ROD

ACOUSTICAL LINING

DUCT

FRAMING FOR BLOCK STRUCTURE

Project: EAST HARBOUR PROJECT
REYKJAVIK, ICELAND

Title: DUCT PENETRATION THROUGH SINGLE SOUND INSULATING WALL (BLOCK WALL)

Scale: NTS

Drawn by: EA/TRP

Checked by: TAP

Date: 03JAN07

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NOTE
THIS DETAIL APPLIES ONLY TO
DUCTWORK LOCATED TIGHT TO
UNDERSIDE OF SLAB OR WALL.

1. INSTALL SHORT SECTION OF DUCT IN
WALL TO ALLOW ACCESS ALL AROUND –
50mm (2") AROUND TOP 25mm (1")
AROUND BOTTOM & SIDES.

2. PACK VOID WITH GLASS FIBER.

3. APPLY POLYETHYLENE FOAM ROD &
CAULK.

4. ATTACH DUCT AT ENDS AFTER SEALING
IS COMPLETE.
<table>
<thead>
<tr>
<th>Project</th>
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<tbody>
<tr>
<td>Title</td>
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DUCT PENETRATION THROUGH SINGLE AND DOUBLE GWB/STUD NOISE CRITICAL WALL
Project: EAST HARBOUR PROJECT  
REYKJAVIK, ICELAND

Title: PENETRATION AT BOTTOM OF DUCT SHAFT

Scale: NTS  
Drawn by: GMG/TRP  
Checked by: TAP  
Date: 03JAN07  
Project No.: 3760  
Report No.: 7742  
Drawing No.: SD2170  
Rev.
GLASS FIBER

25mm (1")

PIPE

CAULK ON POLYETHYLENE FOAM ROD

SLEEVE OPTIONS:
(A) CAST IN PLACE (CONCRETE)
(B) GROUTED IN PLACE (BLOCK)

UNINSULATED

GLASS FIBER

25mm (1")

PIPE

CAULK ON POLYETHYLENE FOAM ROD

INSULATION

SLEEVE OPTIONS:
(A) CAST IN PLACE (CONCRETE)
(B) GROUTED IN PLACE (BLOCK)

INSULATED
PIPE OR CONDUIT PENETRATION THROUGH SINGLE AND DOUBLE GWB/STUD NOISE CRITICAL WALL
CONSTRUCTION SEQUENCE
1. BUILD IN SLEEVE, ONE PER WYTHE, GROUTED IN PLACE. SLEEVE TO GIVE 25mm (1") CLEARANCE AROUND CONDUIT.
2. POSITION CONDUIT.
3. PACK AROUND CONDUIT WITH GLASS FIBER.
4. POINT WITH CAULK ON POLYETHYLENE FOAM ROD.
5. AFTER POSITIONING CABLES, PACK CENTER SECTION WITH GLASS FIBER.
6. RAM DRY SAND PLUGGING BAGS INTO CONDUIT. MINIMUM LENGTH 100mm (4").
CONSTRUCTION SEQUENCE
1. BUILD IN SLEEVE, ONE PER WYTHE, GROUTED IN PLACE. SLEEVE TO GIVE 25mm (1") CLEARANCE AROUND CONDUIT.
2. POSITION CONDUIT.
3. PACK AROUND CONDUIT WITH GLASS FIBER.
4. POINT WITH CAULK ON POLYETHYLENE FOAM ROD.
5. AFTER POSITIONING CABLES, PACK CENTER SECTION WITH GLASS FIBER.
6. FILL CONDUIT AROUND CABLES WITH NON-SHRINKING COMPOUND APPROVED BY ACOUSTICS CONSULTANT AND ENGINEERS FULL DEPTH OF WALLS.
GLASS FIBER

25mm (1"")

SMALL CONDUIT

CAULK ON POLYETHYLENE FOAM ROD

SLEEVE OPTIONS:
(A) CAST IN PLACE (CONCRETE)
(B) GROUTED IN PLACE (BLOCK)

NOTE:
SLAB PENETRATIONS SIMILAR WITH CAST-IN SLEEVE

Project: EAST HARBOUR PROJECT
REYKJAVIK, ICELAND

Title: WALL PENETRATION FOR PIPE

Scale: NTS
Drawn by: EA
Checked by: TAP
Date: 19DEC06
Project No.: 3760
Report No.: 7742
Drawing No.: SD2350
Rev.
TOP VIEW

ELEVATION

FLEXIBLE CONNECTOR

PERIMETER ISOLATION

TYPE DDNM ISOLATOR

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Project  EAST HARBOUR PROJECT
          REYKJAVIK, ICELAND
Title     SUBMERSIBLE PUMP ISOLATION

Scale     NTS
Drawn by  GMG/TRP
Checked by TAP
Date      03JAN07

Project No. 3760
Report No. 7742
Drawing No. SD3160
Rev.
PACK FULL DEPTH WITH GLASS FIBER WITH MASTIC ON FOAM ROD

PACK FULL DEPTH WITH GLASS FIBER

ANGLE BRACKETS ON 9.5mm (3/8") SPONGE NEOprene

PACK FULL DEPTH WITH GLASS FIBER WITH MASTIC ON FOAM ROD

CAULK

RIGID CONNECTION FOR PIPES ON ISOLATION WALL

POLYSULFIDE CAULK

NEOPRENE SPACER

WALL ISOLATOR

SEE RESILIENT HOLD DOWN ASSEMBLY DETAIL DWG SD5910

GLASS FIBER BOARD

ISOLATION PAD

SEE HYDRAULIC PIPE ISOLATION ASSEMBLY DETAIL SD5920

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<table>
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<th>Project</th>
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NOTE
SEE DRAWING SD2110,
SD2120, SD2130, SD2140
AND SD2150 FOR
PENETRATION OF WALL.

SEE DRAWING SD3220 FOR
SUSPENDED DUCT.
NOTE
SEE DRAWING SD2110, SD2120, SD2130, SD2140 AND SD2150 FOR PENETRATION OF WALL.

SEE DRAWING SD3210 FOR FLUSH MOUNTED DUCT.
CROSS SECTIONAL AREA = a × b

EFFECTIVE FREE AREA = (2a + 2b) × c

EFFECTIVE FREE AREA SHOULD BE APPROXIMATELY 50% GREATER THAN CROSS-SECTIONAL AREA

(2a + 2b) × c ≈ 1.5 a × b
\[ R_1 = \frac{R}{CR} \]
\[ R_2 = \frac{R_1}{CR} = \frac{R}{CR^2} \]
\[ R_3 = \frac{R_2}{CR} = \frac{R}{CR^3} \]

where:
- \( R \) = HEEL THROAT RADIUS
- \( R_1 \) = SPLITTER VANE #1 RADIUS
- \( R_2 \) = SPLITTER VANE #2 RADIUS
- \( R_3 \) = SPLITTER VANE #3 RADIUS
- \( CR \) = 'CURVE RATIO' (see table for values)
- \( r \) = CENTER LINE RADIUS

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NOTES:

IN SITUATIONS WHERE SPACE RESTRICTIONS PROHIBIT THE USE OF ELBOWS 1\( \frac{3}{4} \) TIMES THE CENTER LINE RADIUS IN THE PLANE OF ROTATION, ELBOWS WITH 3 SPLITTER VANES ARE TO BE USED IN LIEU OF ELBOWS WITH TURNING VANES.

MIN. HEEL THROAT RADIUS "R" TO BE 4 INCHES. "R" DIMENSION MAY VARY BETWEEN 4 INCHES & "W" DIMENSION AS DICTATED BY SPACE RESTRICTIONS OR AS SHOWN ON DRAWING.

GAUGE OF SPLITTER VANE TO BE THE SAME AS THAT SPECIFIED FOR FITTINGS. SPLITTER VANES DEEPER THAN 12 INCHES TO HAVE HEMMED EDGES.
14 ga STEEL OUTSIDE

50mm (2") GLASS FIBER FILL

PROPRIETARY SPRING OPENER WITH RELEASE, MECHANICALLY OPERATED BY FUSIBLE LINK IN STAGEHOUSE

22 ga STEEL LINER

100mm (4") GLASS FIBER AROUND PERIMETER

ROOF DECK

FORMED STEEL PLATE, TACK WELDED TO FIRE VENT

NOTES:

FIRE VENT OPENING TO BE CLEAR OF ALL OBSTRUCTIONS

NEOPRENE GASKETS AT PERIMETER OF ALL DOORS
NOTES:
USE NEOPRENE ISOLATORS ONLY
WHEN UNIT IS ON ISOLATED GRADE
SLAB OTHERWISE, USE INERTIA BASE
WITH SPRING ISOLATORS.

USE 360° LOOP FLEXIBLE CONDUIT
OR CONDUIT SUSPENSION ON
ISOLATING HANGERS.

TYPE DDNM ISOLATOR
SUPPORTING COIL

MWP ISOLATOR PADS

Project: EAST HARBOUR PROJECT
REYKJAVIK, ICELAND

Title: TRANSFORMER ISOLATION (ON GRADE SLAB)

Scale: NTS

Drawn by: EA/TRP

Checked by: TAP

Date: 04JAN07

Project No. 3760

Report No. 7742

Drawing No. SD4110

Rev.
ALTERNATE B:
360° LOOP OF FLEXIBLE CONDUIT AND CONNECTORS

TRANSMER

ALTERNATE A:
ISOLATED CONDUIT

CONCRETE INERTIA BASE

SPRING ISOLAT
TYPE "SPNM"
50mm (2")
STATIC DEFL.

USE: TRANSFORMERS >40 KW WHEN UNIT DOES NOT HAVE INTERIOR SPRING ISOLATORS.
NOTE: IN GENERAL, ONLY THE SMALLEST (UNDER 40 KW) TRANSFORMERS MAY BE SUSPENDED. LARGER UNITS SHALL BE SUPPORTED FROM BELOW ON AN ISOLATED CONCRETE INERTIA BASE.
<table>
<thead>
<tr>
<th>Project</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
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<td>04JAN07</td>
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<td>3760</td>
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**Diagram:**

- Mason Type RBA-45 Isolator (Typ. of 4)
- Plan View
- To Step Light
- Wireway
- Unistrut on Neoprene Isolators
- Step Light XFR
- Flex (Typ.)
- Primary Voltage
- Breaker Panel
50mm (2") MINIMUM CLEARANCE

LOAD CIRCUITS
NEOPRENE COLLAR
(TYP. FOR ALL CONDUIT)

FLEXIBLE BRAIDED WIRE CONNECTOR

TYPE MWP ISOLATOR

FAN ASSEMBLY

POWER FEEDS THROUGH OPEN BOTTOM

ACCESS FLOOR

ON ACCESS FLOOR

ON CONCRETE SLAB
CONSTRUCTION SEQUENCE
1. BUILD IN SLEEVE, SLEEVE TO GIVE 25mm (1") CLEARANCE AROUND CONDUIT.
2. POSITION CONDUIT.
3. PACK AROUND CONDUIT WITH GLASS FIBER.
4. AFTER POSITIONING CABLES, PACK CENTER SECTION WITH GLASS FIBER.
5. PACK CONDUITS WITH GLASS FIBER, FULL DEPTH.
6. INSTALL EXPANDED METAL AROUND CONDUITS, BOTH SIDES.
7. APPLY PLASTER, BOTH SIDES.

NOTE:
SPECIAL ALTERNATE FOR EXISTING CONDITIONS ONLY. DO NOT USE FOR NEW CONSTRUCTION.

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NOTES
1. MINIMUM STATIC DEFLECTION OF 25mm (1’’)
   FOR GRADE LEVEL.
2. MINIMUM STATIC DEFLECTION OF 50mm (2’’)
   FOR ABOVE GRADE LEVEL.
3. MINIMUM ADDITIONAL TRAVEL OF SPRING TO
   SOLID EQUAL TO 50 PERCENT OF SPECIFIED STATIC
   DEFLECTION.
4. SPRING DIAMETER NOT LESS THAN 80 PERCENT
   OF THE COMPRESSED HEIGHT OF THE SPRING AT
   THE RATED LOAD.

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Project | EAST HARBOUR PROJECT REYKJAVIK, ICELAND
---|---
Title | SPRING & NEOPRENE MOUNT (SPNM)
Scale | NTS
Drawn by | CMG/KWC
Checked by | TAP
Date | 04JAN07
Report No. | 7742
Drawing No. | SD5310
Rev. | 3760
NOTES
1. 9.5mm (3/8") STATIC DEFLECTION.
2. STRAIN NOT TO EXCEED 10 PERCENT.
3. 50 DUROMETER NEOPRENE UNLESS OTHERWISE SPECIFIED.

FOR INFORMATION ONLY
NOT FOR CONSTRUCTION
NOTE
LOAD FOR STATIC
DEFLECTION 0.03"

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<table>
<thead>
<tr>
<th>Project</th>
<th>Scale</th>
<th>Drawn by</th>
<th>Checked by</th>
<th>Date</th>
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<td>EAST HARBOUR PROJECT</td>
<td>NTS</td>
<td>CMG/KWC</td>
<td>TAP</td>
<td>04JAN07</td>
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<td>REYKJAVIK, ICELAND</td>
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<td></td>
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<td>WAFFLE PAD (WP)</td>
<td>Project No. 3760</td>
<td>Report No. 7742</td>
<td>Drawing No. SD5710</td>
<td>Rev.</td>
</tr>
</tbody>
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NOTE
STRAIN NOT TO EXCEED 20 PERCENT

16 GA STAINLESS STEEL PLATE
8mm (5/16") NEOPRENE PAD
FOR INFORMATION ONLY NOT FOR CONSTRUCTION

ELBOW CONNECTOR

GALVANIZED FLANGES

NEOPRENE AND NYLON

TWIN SPHERE CONNECTOR

GALVANIZED FLANGES

NEOPRENE AND NYLON

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Project: EAST HARBOUR PROJECT
REYKJAVIK, ICELAND

Title: PIPE FLEXIBLE CONNECTORS
Project No. 3760
Report No. 7742
Drawing No. SD5930

Scale NTS
Drawn by MH/TRP
Checked by TAP
Date 04JAN07
Rev.
NOTES:
NEOPRENE GASKET PROVIDES DAMPING TO GLASS.
SUBFRAME MUST BE SEALED AIRTIGHT TO STRUCTURAL OPENING.
NOTE:
1. NEOPRENE BLOCKS SPLIT TO ACCOMMODATE WRAPPING AROUND CABLE.
2. STEEL PLATES SLOTTED FOR SAME REASON; SLOTS TO BE CAULKED.
6mm (¼") STEEL PLATE WITH LIFTING HOLE

25x25mm (1"x1") ANGLE AT PERIMITER

FLEXIBLE DANCE FLOOR ZONE BLOCKED UP SOLID AROUND HOLE (SEE FLOOR TERMINATION DETAIL)

300mm (12") SQUARE HOLE IN FLOOR

THIS END OF CHAIN FIXED TO FLOOR

150mm (6") CONDUIT SLEEVE CAST IN CONCRETE

CAP ON CHAIN WITH SWIVEL CLASP
THEATER SIDE OR OUTSIDE

SOUND LOCK SIDE

CONCRETE OR BLOCK WALL

METAL OR WOOD DOOR

NEOPRENE SEALS FULL PERIMETER (SOUND LOCK SIDE ONLY).

25mm (1") DUCT LINER COVERED WITH PERFORATED METAL (ENTIRE PERIMETER)

3mm (9/32") NEOPRENE SHEET (BOTH SIDES)

CABLE ALIGNMENT PINS IN FRAME BETWEEN SLITS

FLOOR SLAB

NOTE:
SOUND LOCK SIDE DOOR TO BE HMI SOUND DOOR WITH GLASS FIBER FILL, FULL SEALS & APPROPRIATE FIRE RATING.

DOOR WITH SLITS TO BE SOLID CORE WOOD, NO SEALS & FIRE RATING DOORS SWING UP.

3mm (9/32") NEOPRENE SHEETS FASTENED TO DOOR AT PERIMETER WITH CEMENT AND ALUMINUM TRIM

100mm (4") HIGH SLITS IN NEOPRENE

HOLD OPEN DEVICE (BOTH DOORS)

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Project | EAST HARBOUR PROJECT
         | REYKJAVIK, ICELAND
Title   | ACOUSTIC PRINCIPLE FOR DOUBLE DOOR CLOSURE OF BROADCAST CABLE ROUTE
Scale   | NTS
Drawn by| EPA/TRP
Checked by| TAP
Report No. | 7742
Drawing No. | SD8230
Rev. | 04JAN07
ATTIC

CANOPY LIFT LINE

1/2" THICK NEOPRENE WITH HOLE (HOLE DIA. = DIA. OF LIFT LINE PLUS 1/2") CENTERED ON HOLE IN STEEL PLATE; MECHANICALLY FASTENED TO STEEL PLATE

3/8" THICK STEEL PLATE 12" x 12" WITH 2" DIA. HOLE AT CENTER

6" DIA. SLEEVED HOLE

AUDIENCE CHAMBER

SECTION

PLAN VIEW

ACOUSTIC CAPS NOT ATTACHED TO FLOOR

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NEW YORK, NY 10001
(212) 242-0120

Project
EAST HARBOUR PROJECT
REYKJAVIK, ICELAND

Title
ACOUSTIC CAPS FOR CANOPY LIFT LINE SLEEVED HOLES

Scale
NTS

Drawn by
MH

Checked by
TAP

Project No.
3760

Date
SD8240
Rev.

Date
23APR01