

# ARTEC

Design and Planning Services for Performing Arts Facilities

## ACOUSTIC ISOLATION DETAILS

### Icelandic National Concert and Conference Center

Reykjavík, Iceland

Includes additional details added throughout design; see final pages for listing of details by bid set (this list includes details not listed in pages 1-7)

January 5, 2007

Artec Report No. 7742  
Artec Project No. 3760

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East Harbour Project  
Portus Group  
HLT  
Rambøll  
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

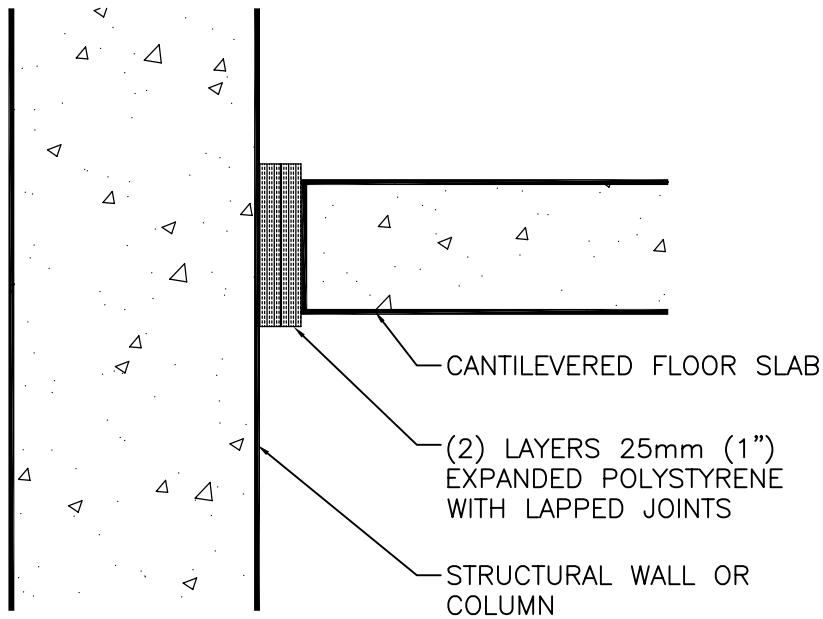
## **6. Window Detail**

SD7310      Acoustically Sealed Glazing Detail

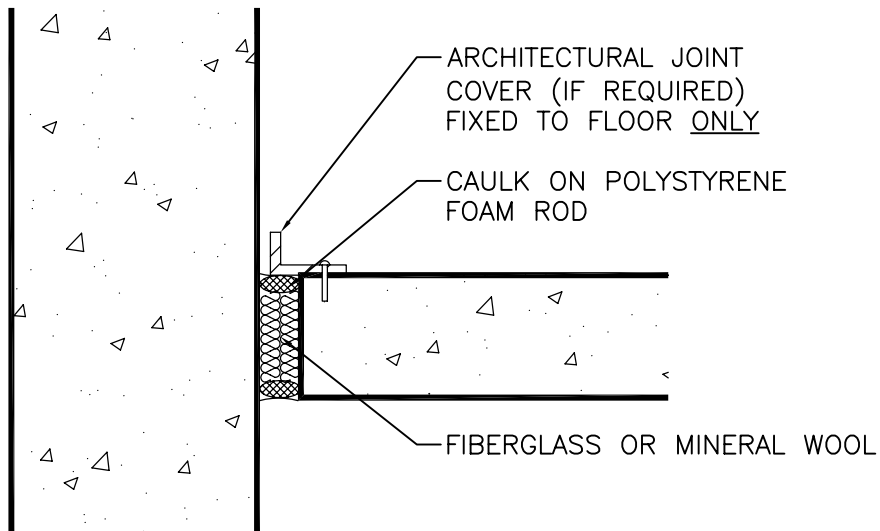
## **7. Miscellaneous Details**

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



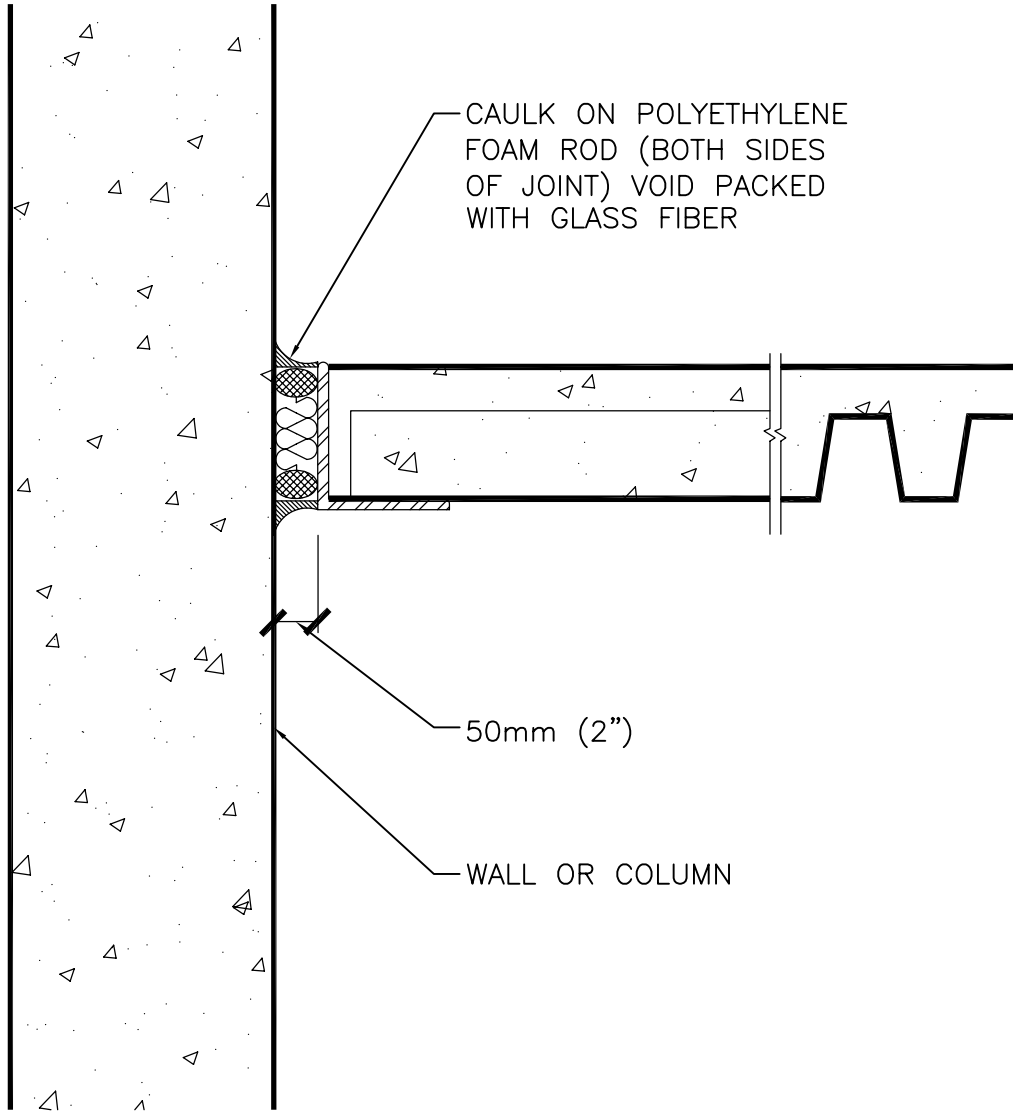
STEP 2  
REMOVE POLYSTYRENE.  
STUFF GAP WITH GLASS  
FIBER AND FINISH WITH  
NON-HARDENING SEALANT  
OR FIRESTOP

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	19DEC06
<b>Title</b>	PERIMETER ISOLATION OF NON-GRADE SLAB-SECTION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1230	<b>Rev.</b>	



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<b>Title</b>	ACOUSTICAL JOINT—CONCRETE ON METAL DECK CONSTRUCTION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1240	<b>Rev.</b>	

filename:  
SD1250

date:  
12APR02

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

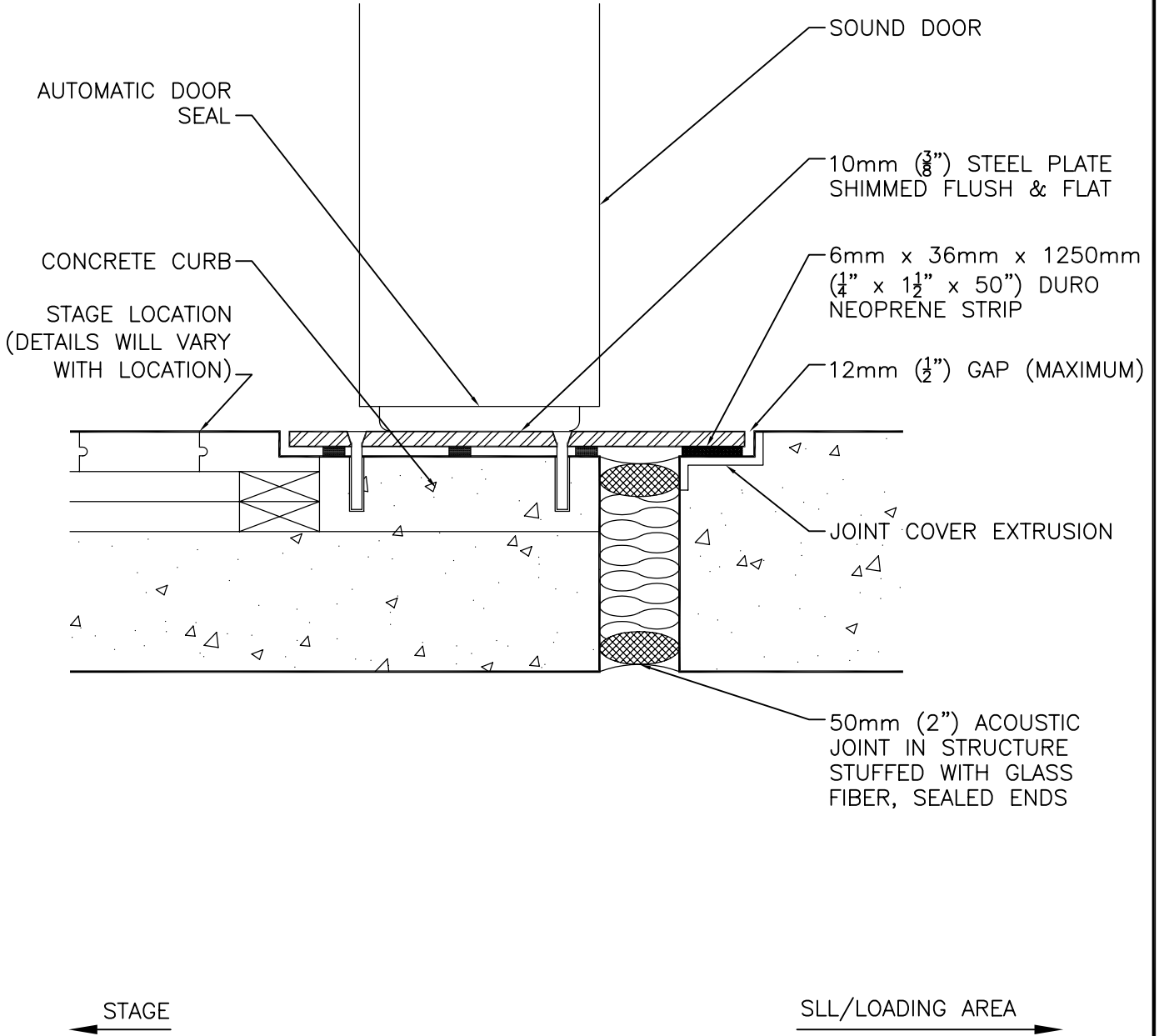
STEP 2  
REMOVE POLYSTYRENE, STUFF GAP  
WITH GLASS FIBER AND FINISH WITH  
NON-HARDENING SEALANT OR  
FIRESTOP

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<b>Title</b>	ACOUSTIC JOINT IN SUSPENDED CONCRETE SLAB WITH PROPRIETARY JOINT COVER	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1250	<b>Rev.</b>	



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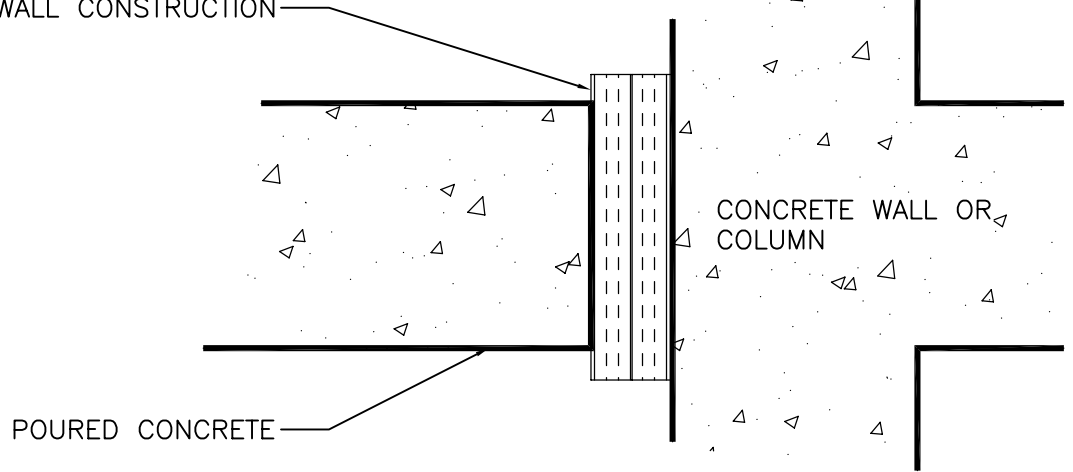
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	19DEC06
<b>Title</b>	ACOUSTIC JOINT BETWEEN STAGE & LOADING AREA	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1260	<b>Rev.</b>	

filename:  
SD1310

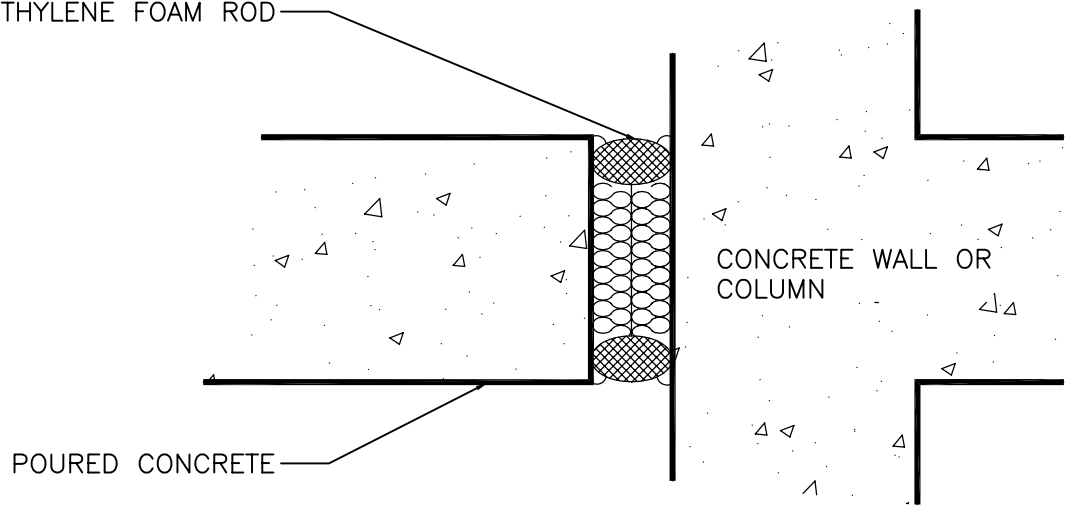
date:  
11MAY93

(2) LAYERS 25mm (1") EXPANDED  
POLYSTYRENE, STAGGERED JOINTS.  
BUILT IN WITH WALL CONSTRUCTION



STEP 1  
POUR SECOND WALL AGAINST  
POLYSTYRENE

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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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	19DEC06
<b>Title</b>	ACOUSTICAL JOINT PLAN SECTION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1310	<b>Rev.</b>	

filename:  
SD1320

date:  
01NOV95

(2) LAYERS 25mm (1")  
EXPANDED POLYSTYRENE.  
STAGGER JOINTS. BUILT IN  
WITH WALL CONSTRUCTION.

CONCRETE WALL OR  
COLUMN

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

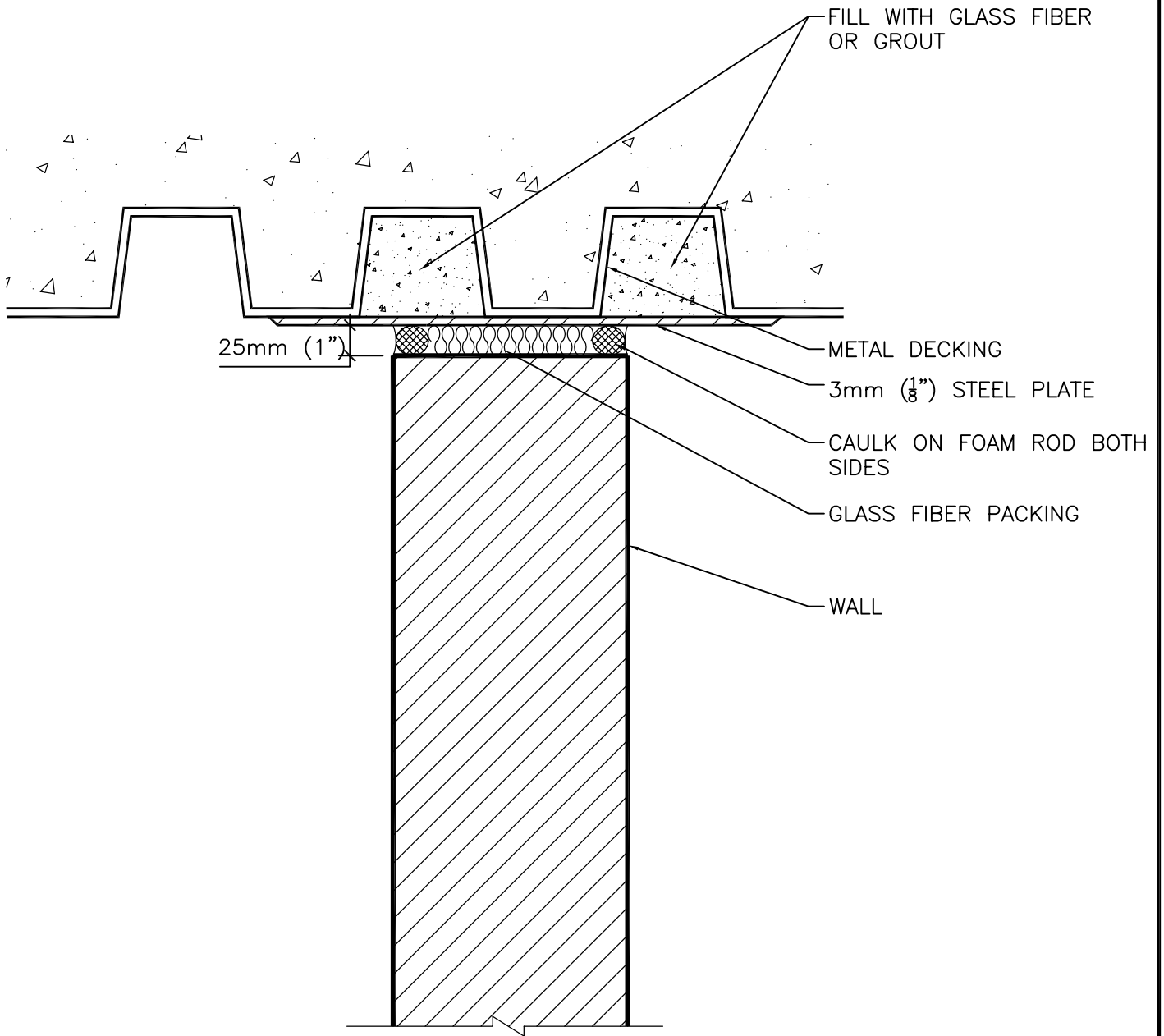
NOTE:  
STAGGER JOINTS IN POLYSTYRENE  
TO PREVENT CEMENT FROM FLOWING  
ACROSS JOINT

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<b>Title</b>	ACOUSTIC JOINT PLAN SECTION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1320	<b>Rev.</b>	

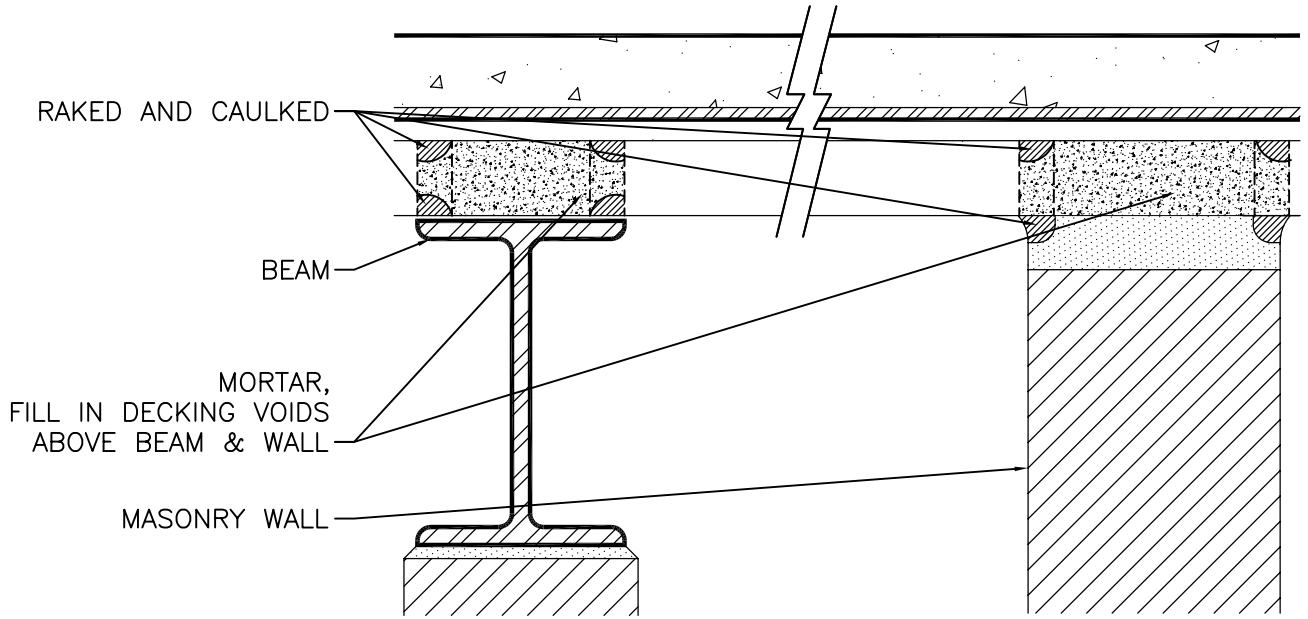


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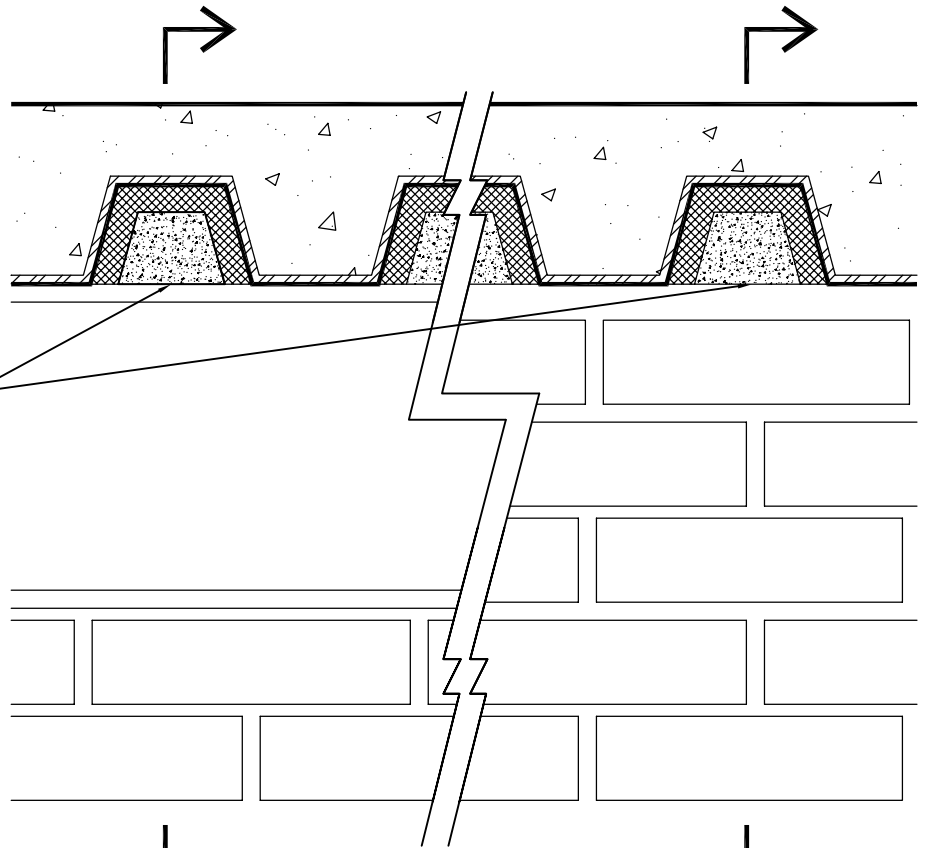
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	19DEC06
<b>Title</b>	WALL AND METAL DECK INTERSECTION NOISE CRITICAL WALLS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1340	<b>Rev.</b>	



SECTION

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



ELEVATION

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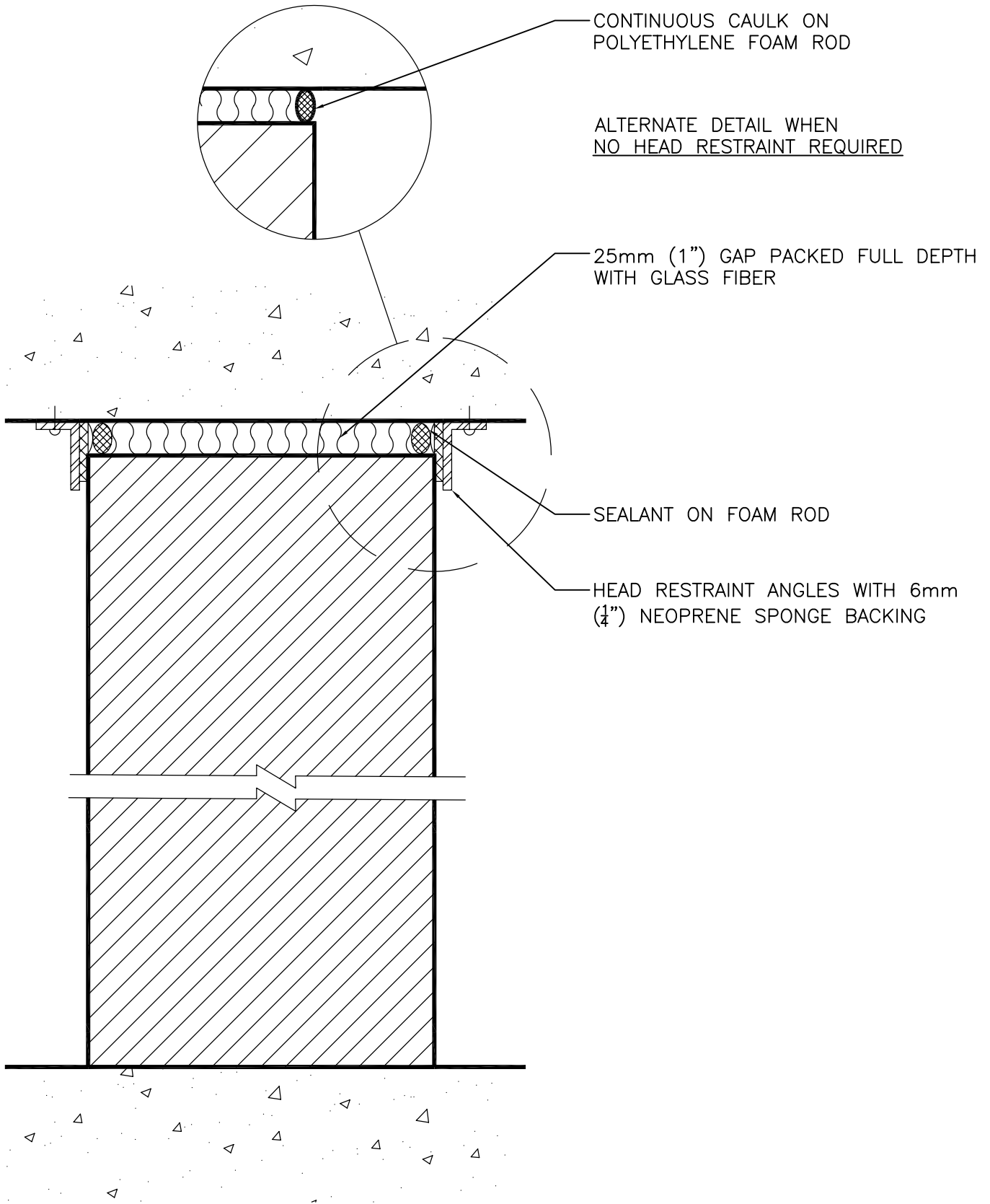
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	EA/TRP	<b>Checked by</b>	TAP	<b>Date</b>	19DEC06
<b>Title</b>	WALL/BEAM INTERSECTION WITH METAL DECKING NOISE CRITICAL WALLS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1350	<b>Rev.</b>	



filename:  
SD1410

date:



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  
(1/4") NEOPRENE SPONGE BACKING

**ARTEC**

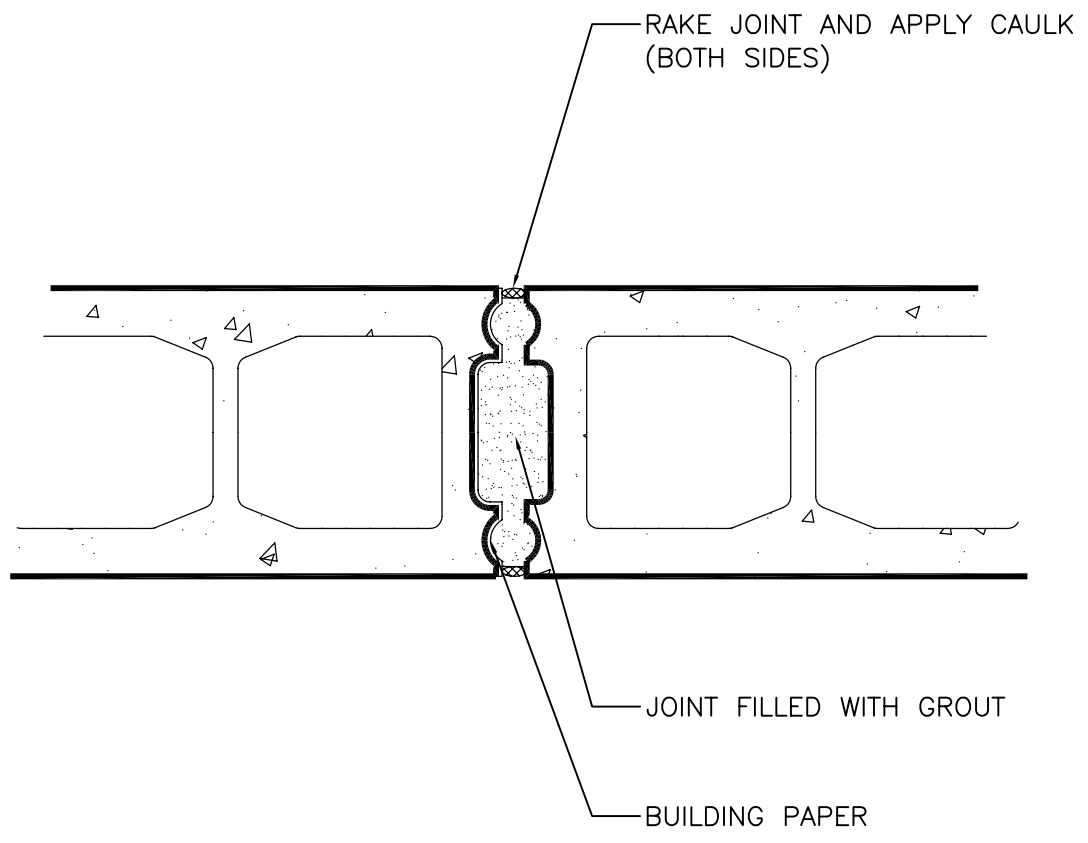
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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/TRP	<b>Checked by</b> TAP	<b>Date</b> 19DEC06
<b>Title</b> SEAL AT HEAD OF MASONRY NOISE CRITICAL WALLS	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD1410	<b>Rev.</b>

filename:  
SD1440

date:  
25JUL90



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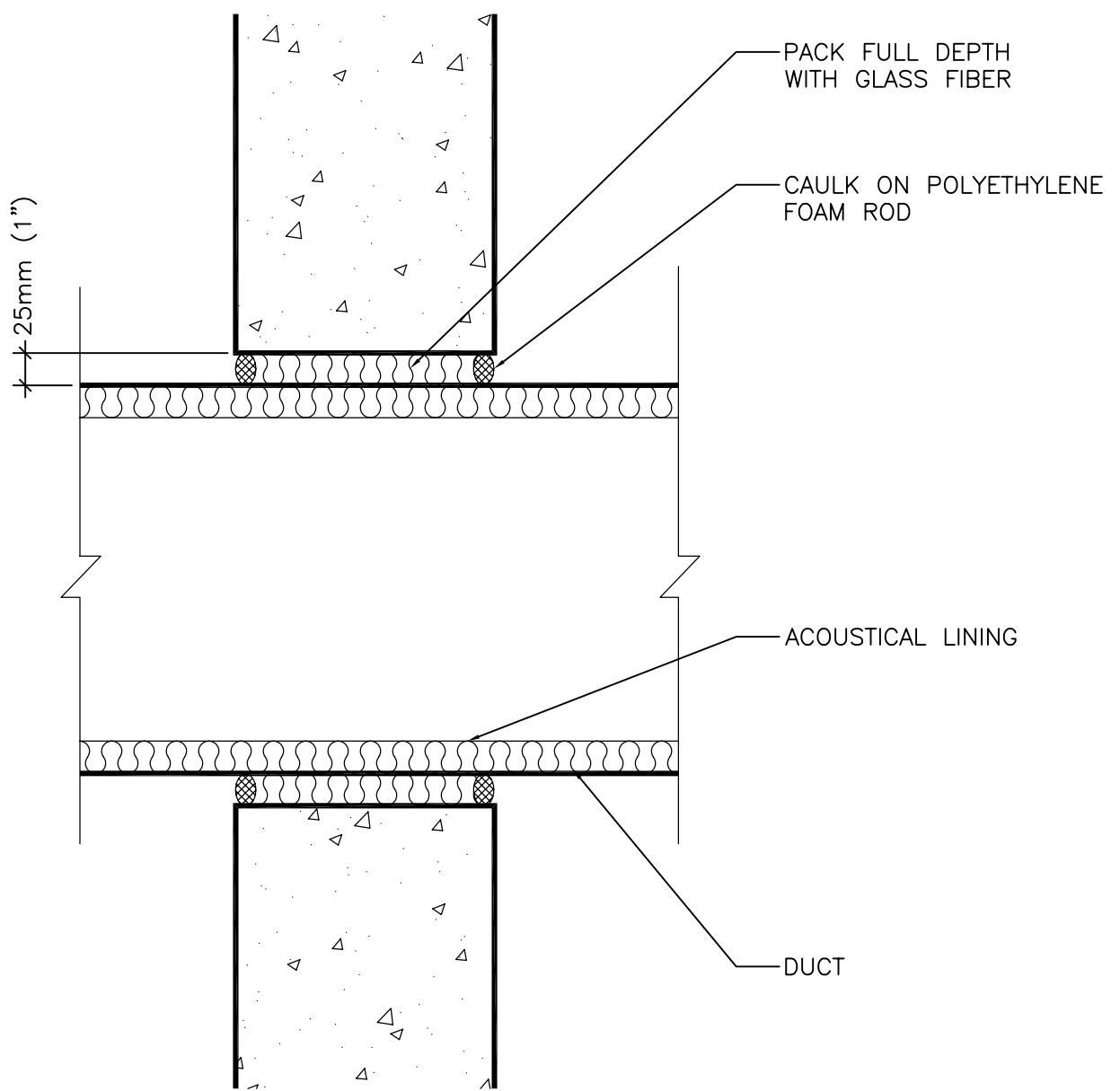
CONSULTANTS INC

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	18DEC06
<b>Title</b>	SEAL AT RIGID JOINT (NOT ACOUSTICAL JOINT)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD1440	<b>Rev.</b>	

filename:  
SD2110

date:



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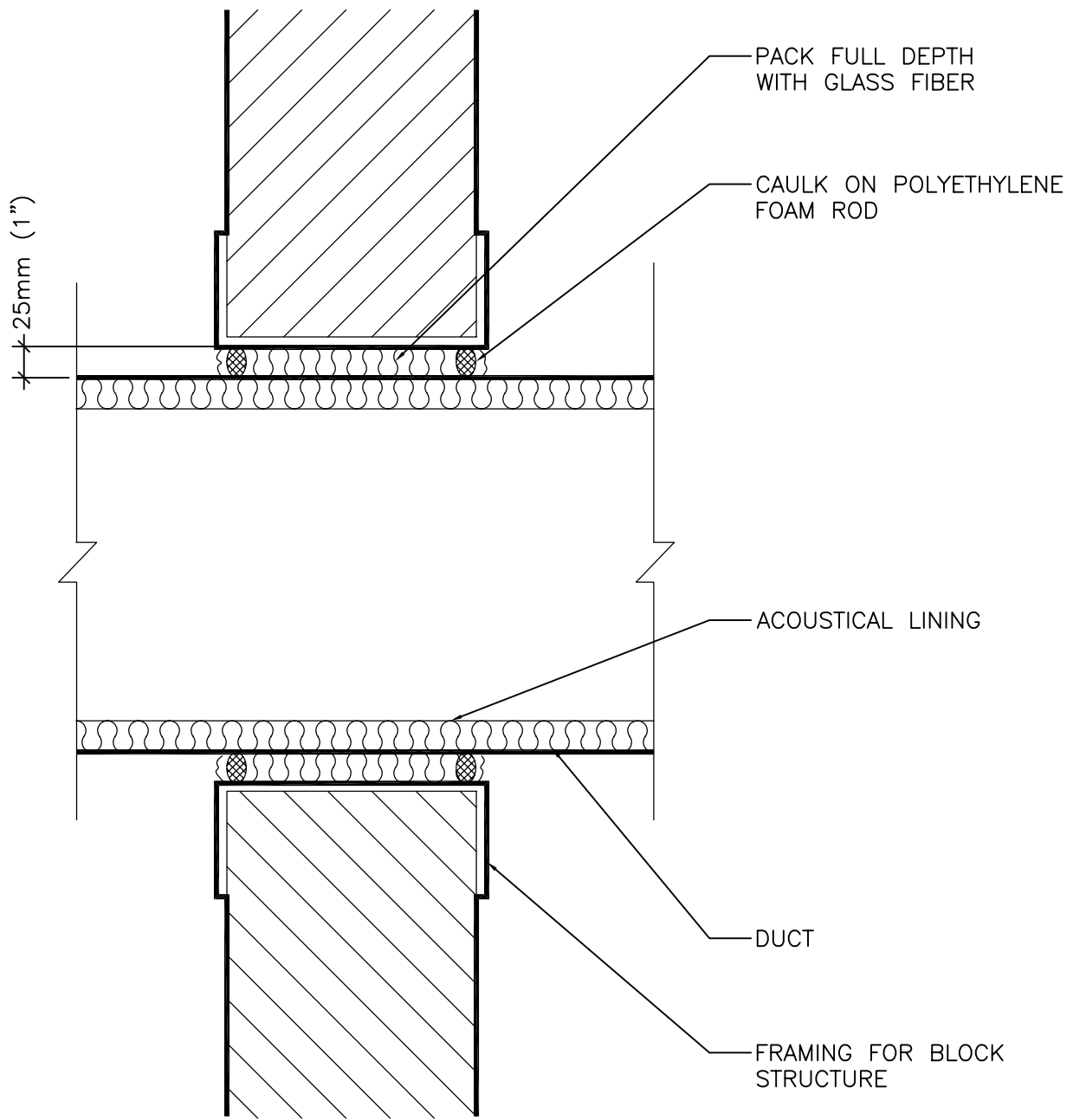
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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/TRP	<b>Checked by</b> TAP	<b>Date</b> 19DEC06
<b>Title</b> DUCT PENETRATION THROUGH SINGLE SOUND ISOLATING WALL (CONCRETE WALL)	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD2110	<b>Rev.</b>

filename:  
SD2120

date:  
01NOV95

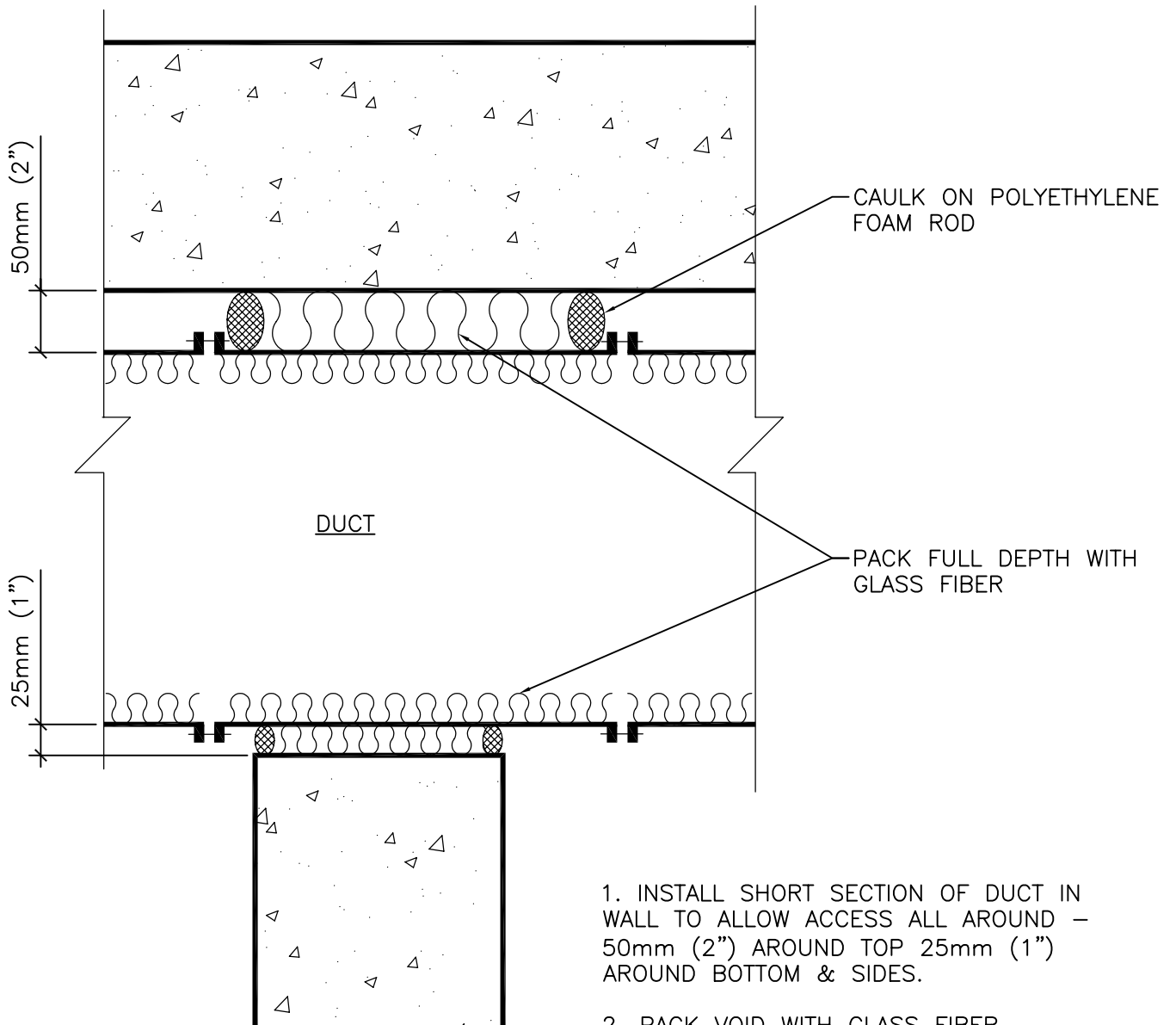


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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/TRP	<b>Checked by</b> TAP	<b>Date</b> 03JAN07
<b>Title</b> DUCT PENETRATION THROUGH SINGLE SOUND INSULATING WALL (BLOCK WALL)	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD2120	<b>Rev.</b>



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.

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

# ARTEC

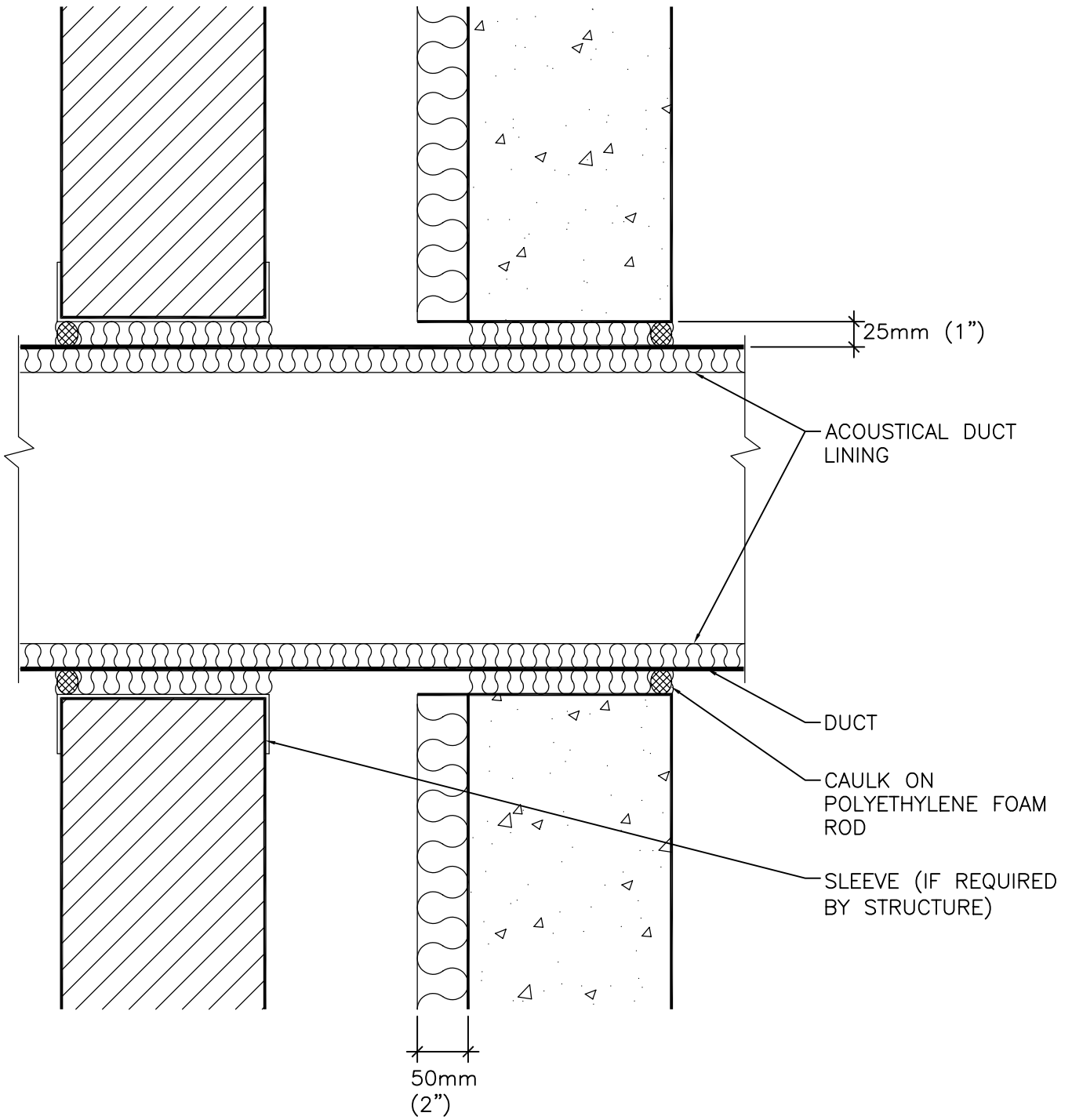
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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/TRP	<b>Checked by</b> TAP	<b>Date</b> 03JAN07
<b>Title</b> DUCT PENETRATION AT UNDERSIDE OF SLAB	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD2130	<b>Rev.</b>

filename:  
SD2140

date:  
24AUG90



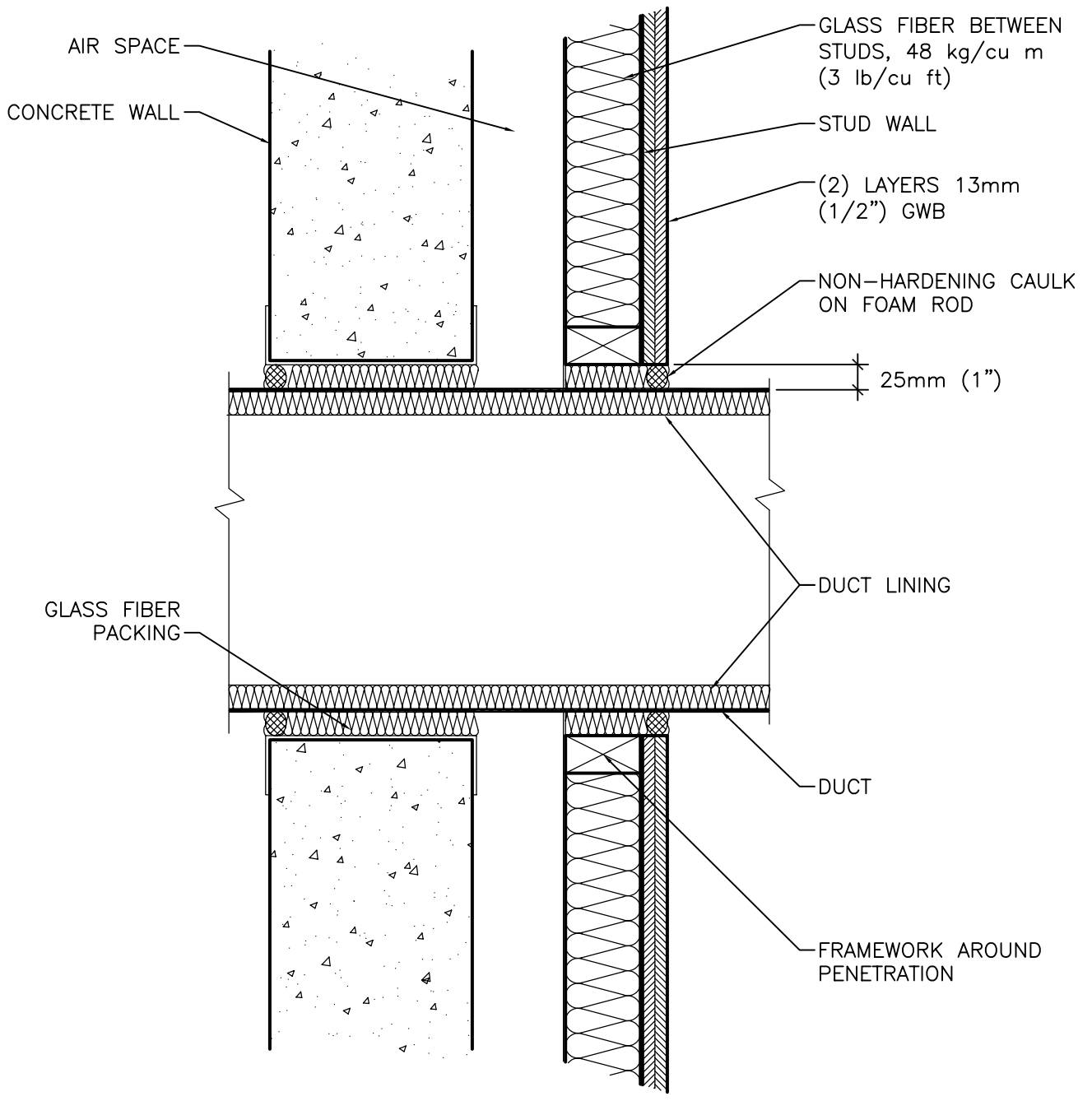
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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/KC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> DUCT PENETRATION THROUGH DOUBLE SOUND ISOLATING WALLS	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD2140	<b>Rev.</b>

filename: SD2150  
 date: 14AUG96



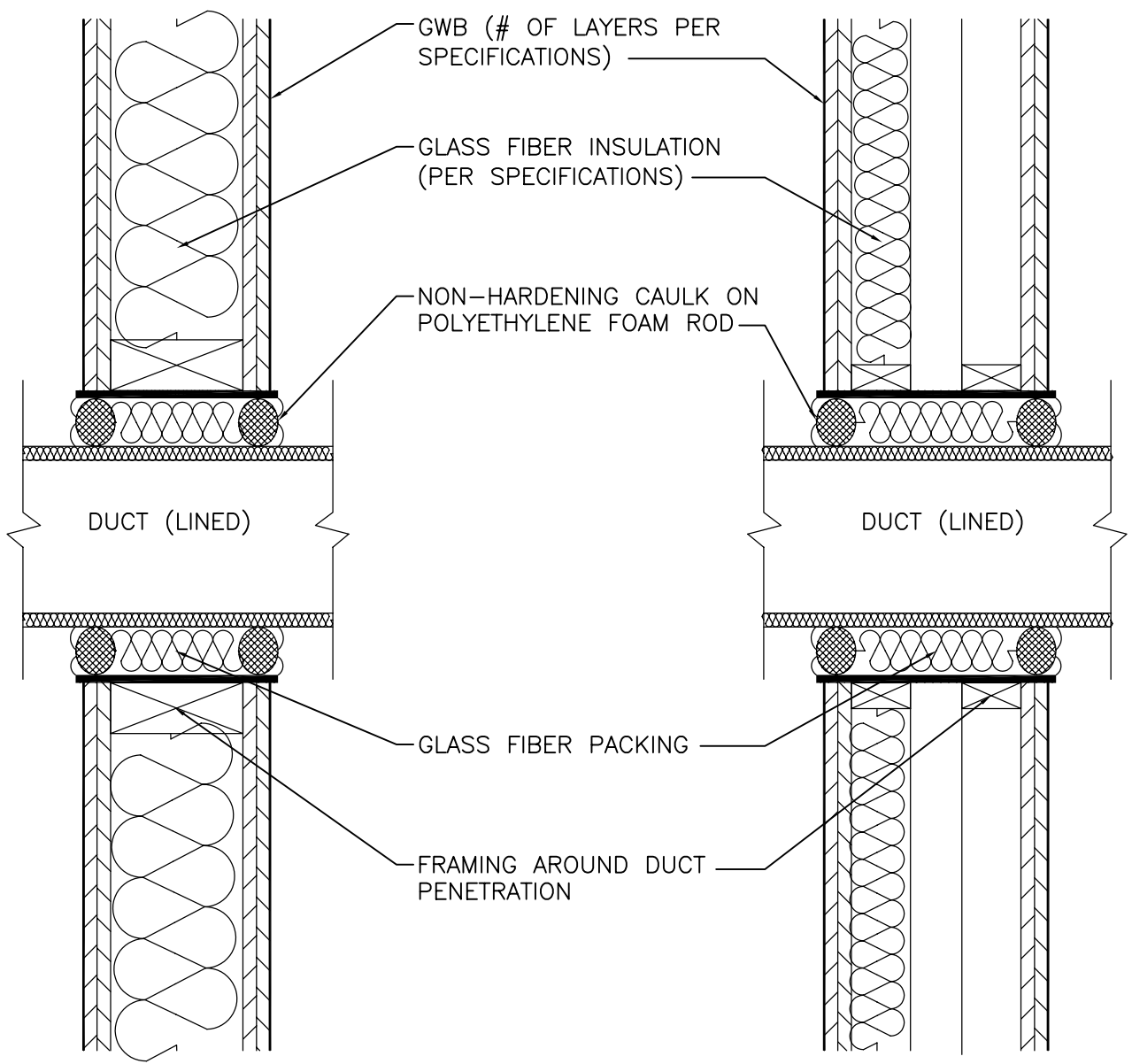
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	AK/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	DUCT PENETRATION THROUGH DOUBLE SOUND ISOLATING WALLS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2150	<b>Rev.</b>	

filename: SD2160  
 date: 04NOV96



DUCT PENETRATION THROUGH  
 SINGLE AND DOUBLE GWB/STUD  
 NOISE CRITICAL WALL

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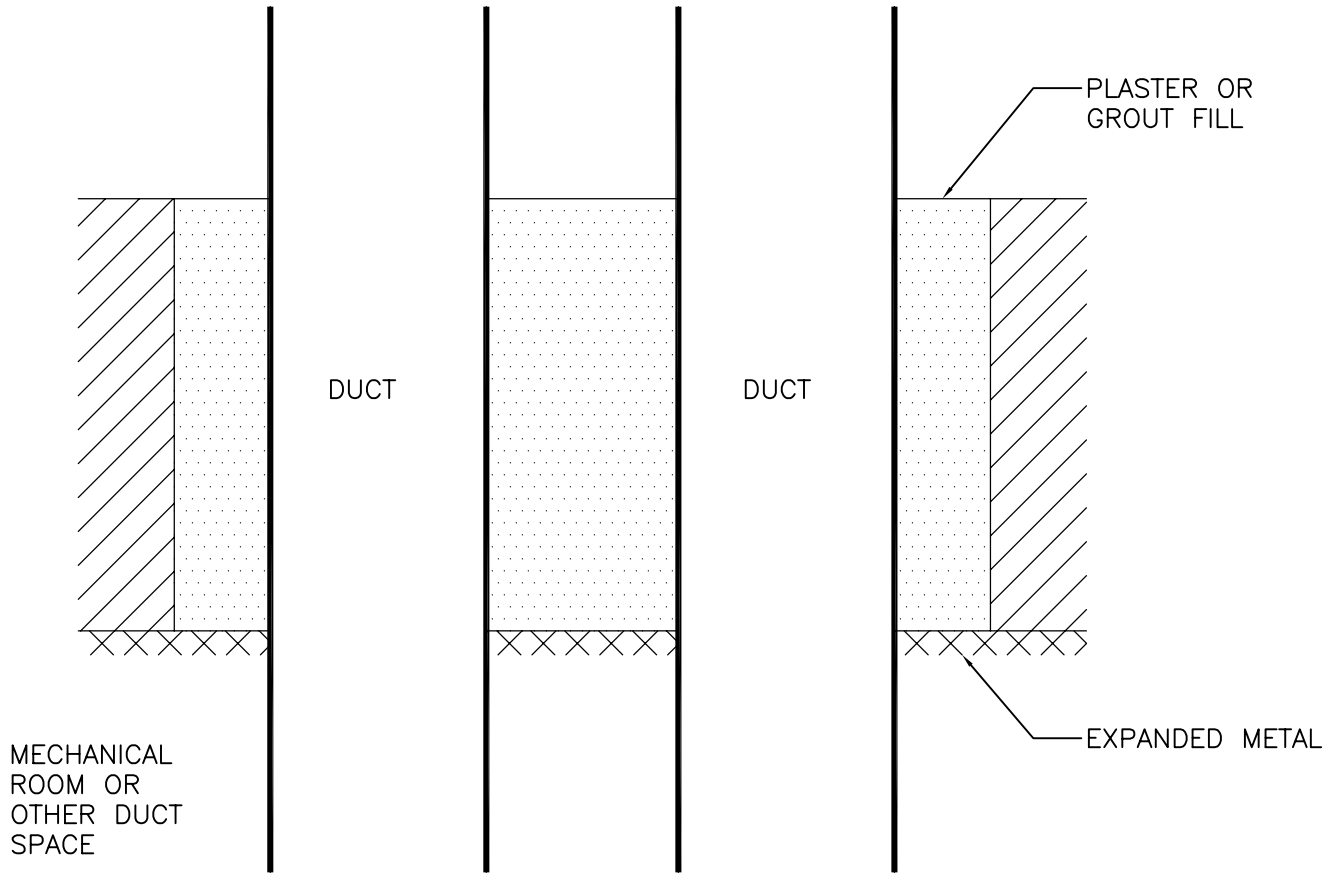
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	AK/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	DUCT PENETRATION THROUGH SINGLE/DOUBLE SOUND ISOLATING WALLS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2160	<b>Rev.</b>	



filename:  
SD2170

date:  
01NOV95



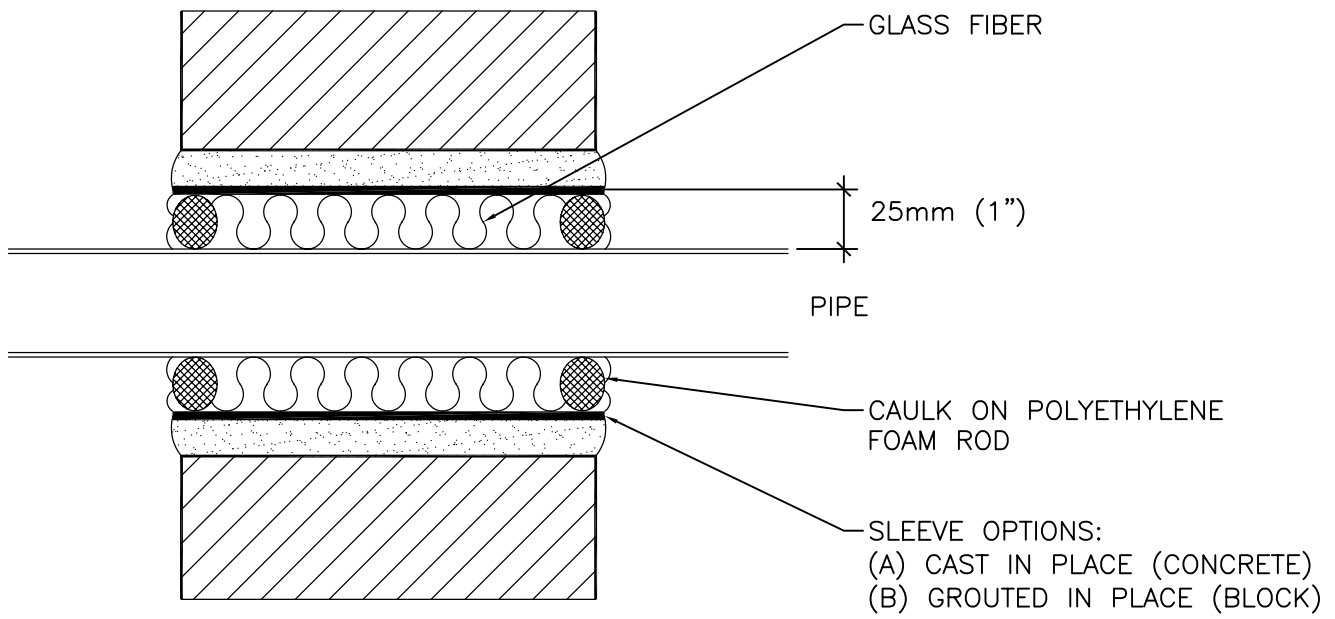
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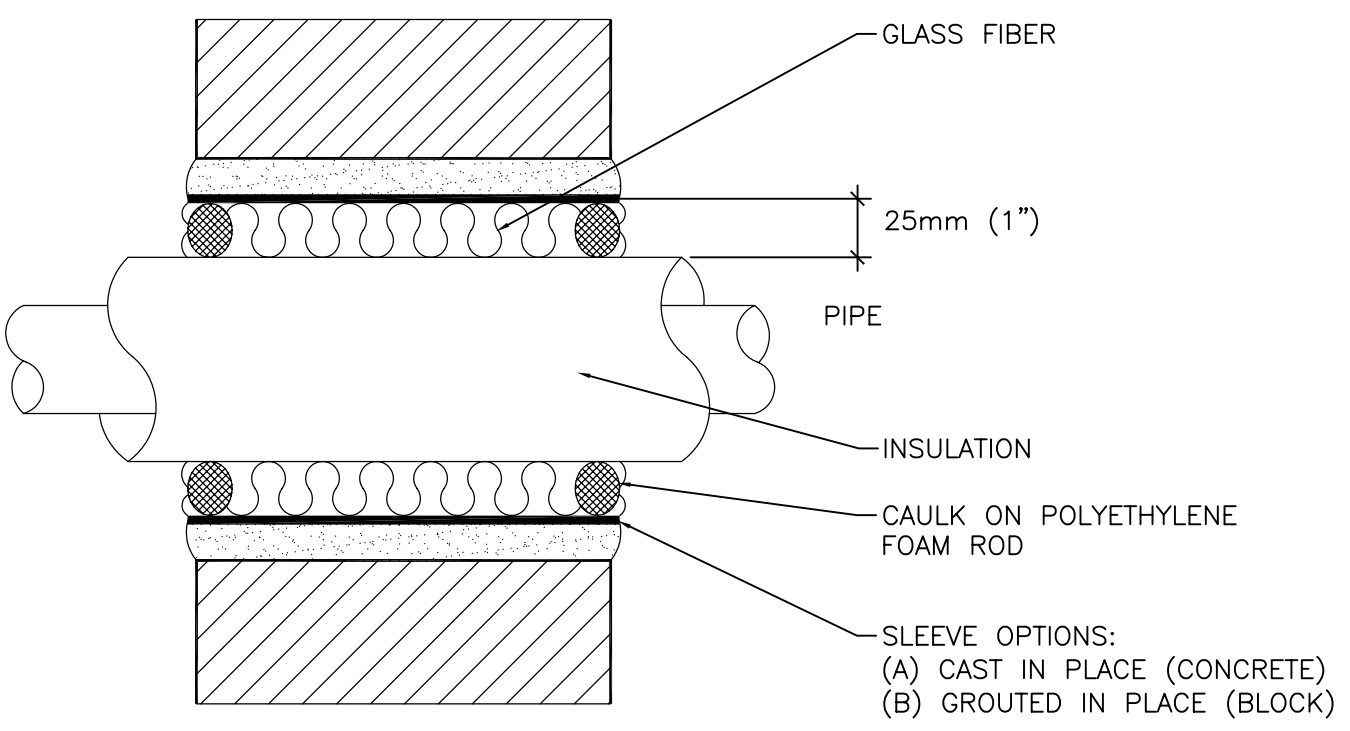
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	PENETRATION AT BOTTOM OF DUCT SHAFT	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2170	<b>Rev.</b>	

filename: SD2210  
 date: 24AUG90



UNINSULATED



INSULATED

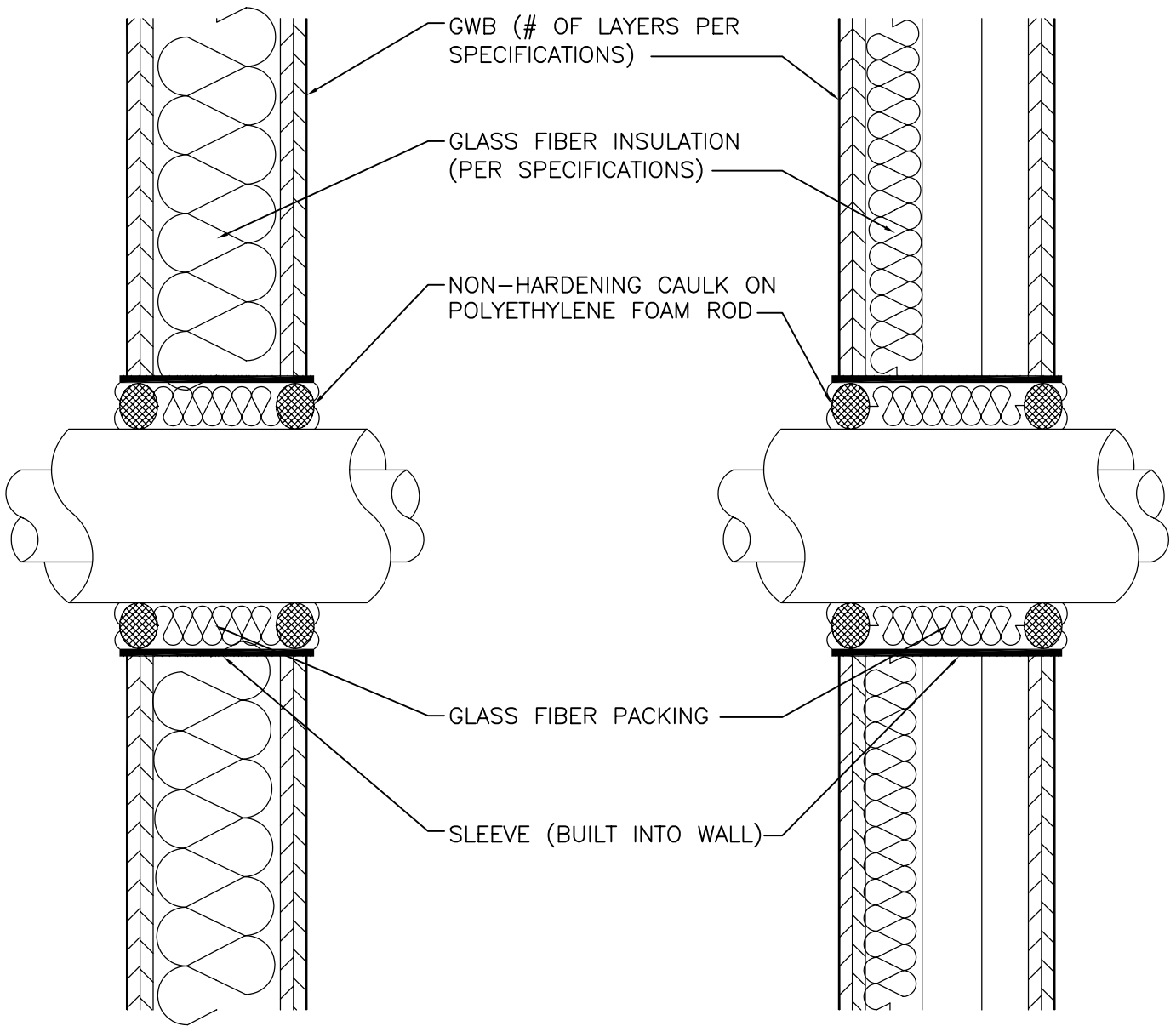
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	WALL PENETRATION FOR PIPE	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2210	<b>Rev.</b>	

filename: SD2220  
 date: 04NOV96



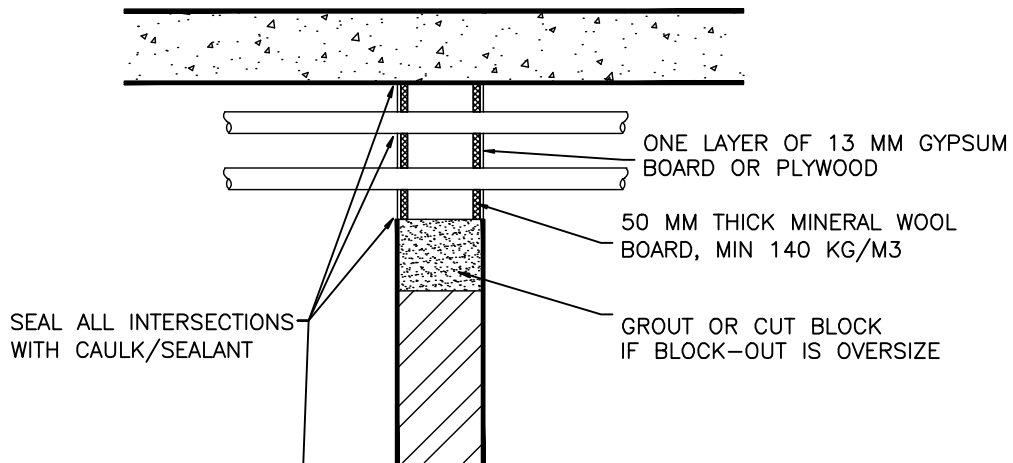
PIPE OR CONDUIT PENETRATION THROUGH SINGLE AND DOUBLE GWB/STUD NOISE CRITICAL WALL

**ARTEC**

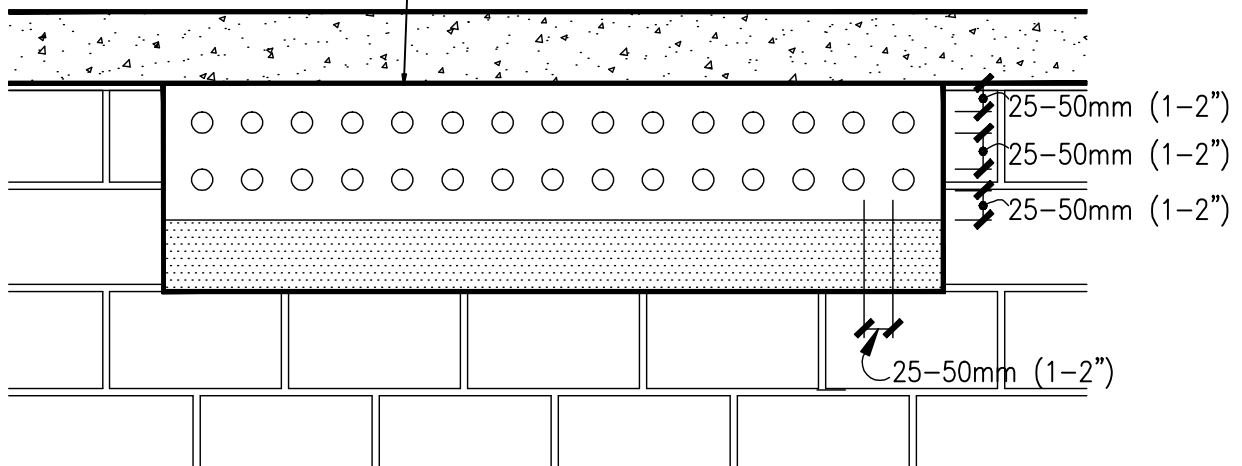
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	AK/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	PIPE/CONDUIT PENETRATION THROUGH SINGLE/DOUBLE SOUND ISOLATING WALLS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2220	<b>Rev.</b>	



SECTION

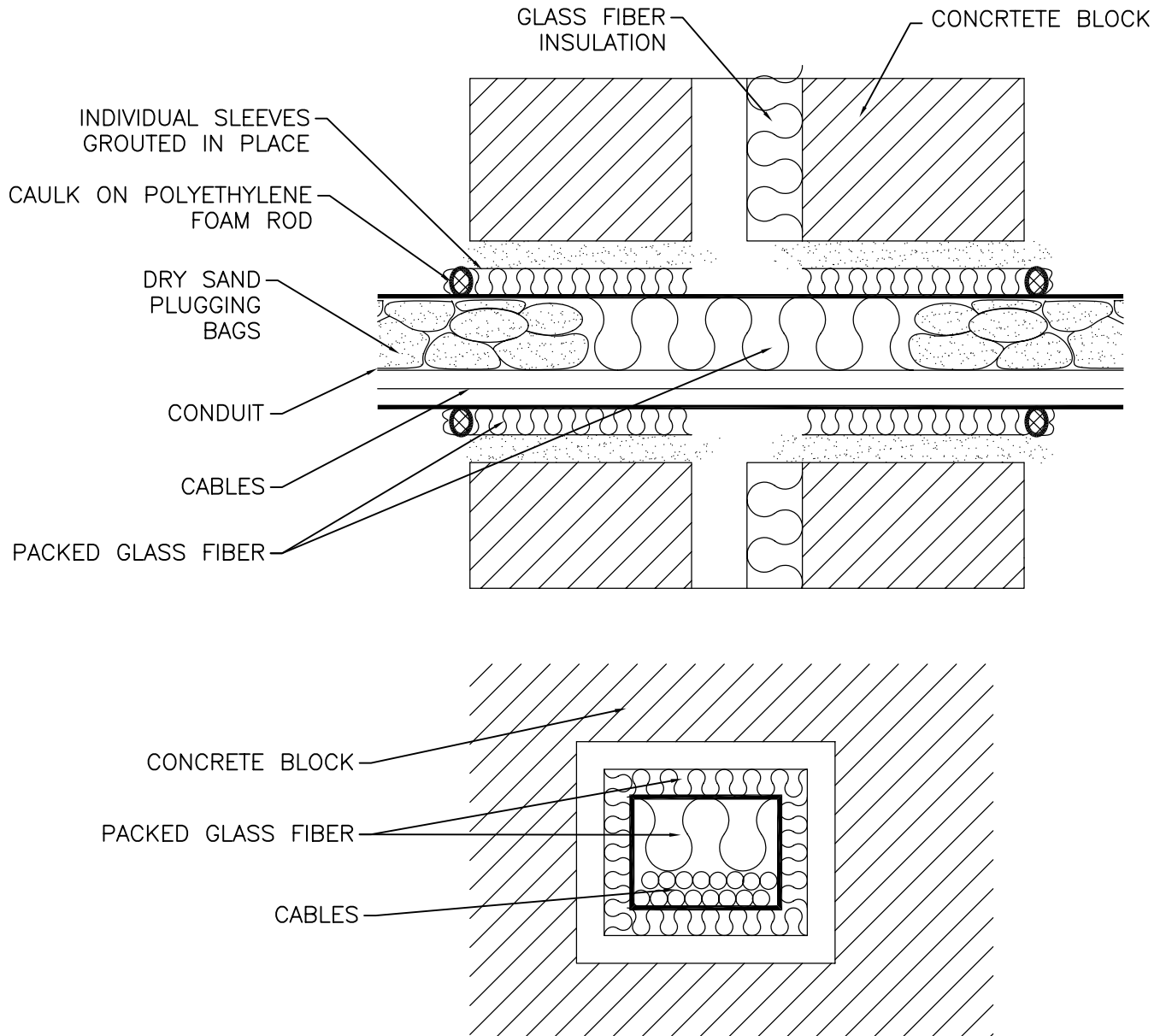


ELEVATION AT WALL PENETRATION

# ARTEC

DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES  
 114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812  
 TEL: +1(212) 242 0120 FAX: +1(212) 645 8635 [www.ArtecConsultants.com](http://www.ArtecConsultants.com)

Scale NTS	Drawn by TAP	Date 2008-04-01	Project EAST HARBOUR CCC REYKJAVIK, ICELAND	Drawing No.
Project No. 3760	Checked by TAP	Rev.	Title MULTIPLE CONDUIT PENETRATION OF WALL & SLABS	SD-2310



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").

**ARTEC**

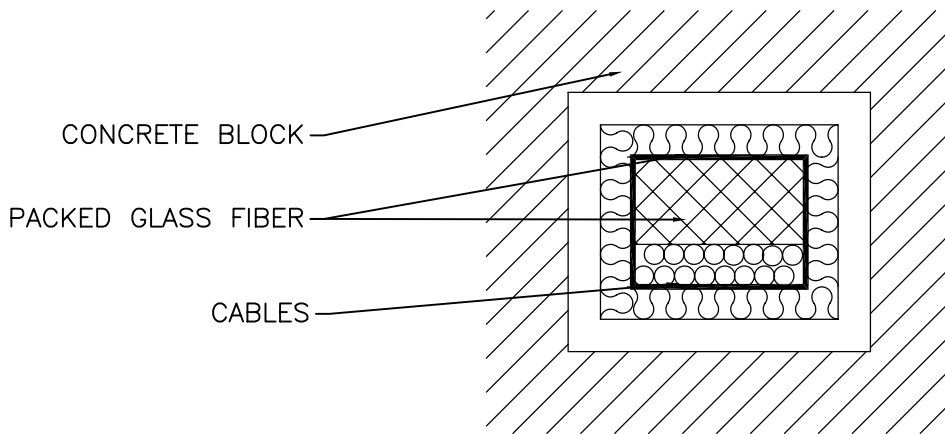
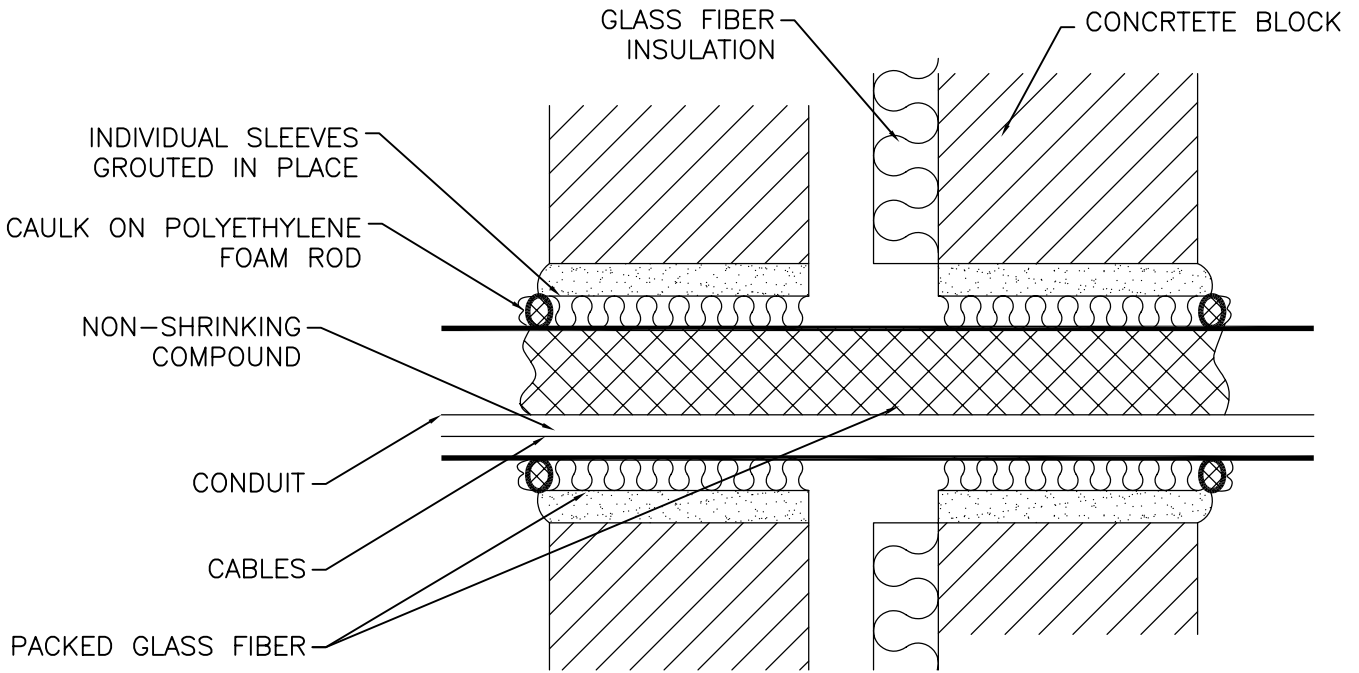
CONSULTANTS INC

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	EA/KWC	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	WIREWAY PENETRATIONS THROUGH SOUND ISOLATION WALLS FOR CONDUITS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2320	<b>Rev.</b>	

filename:  
SD2330

date:  
01NOV95



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.

**ARTEC**

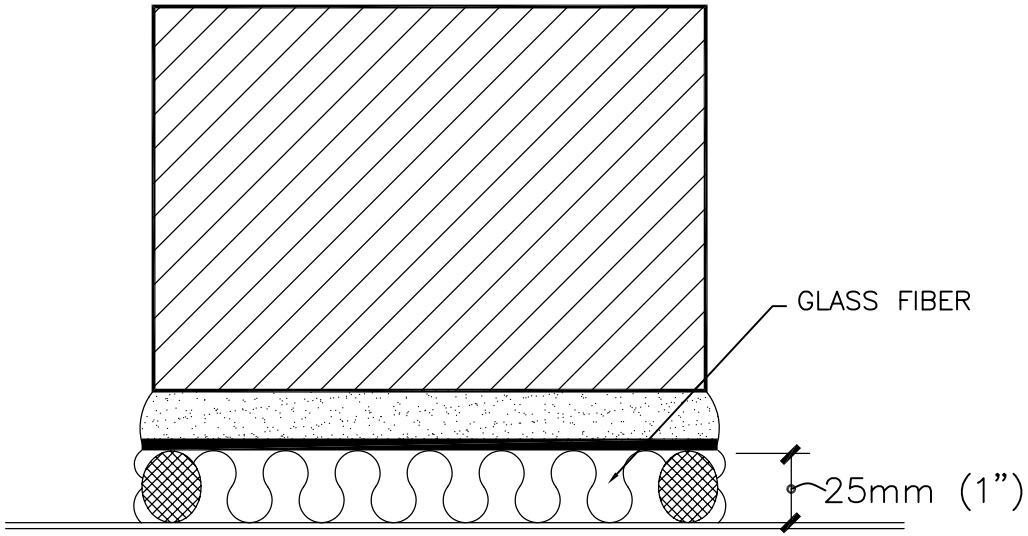
CONSULTANTS INC

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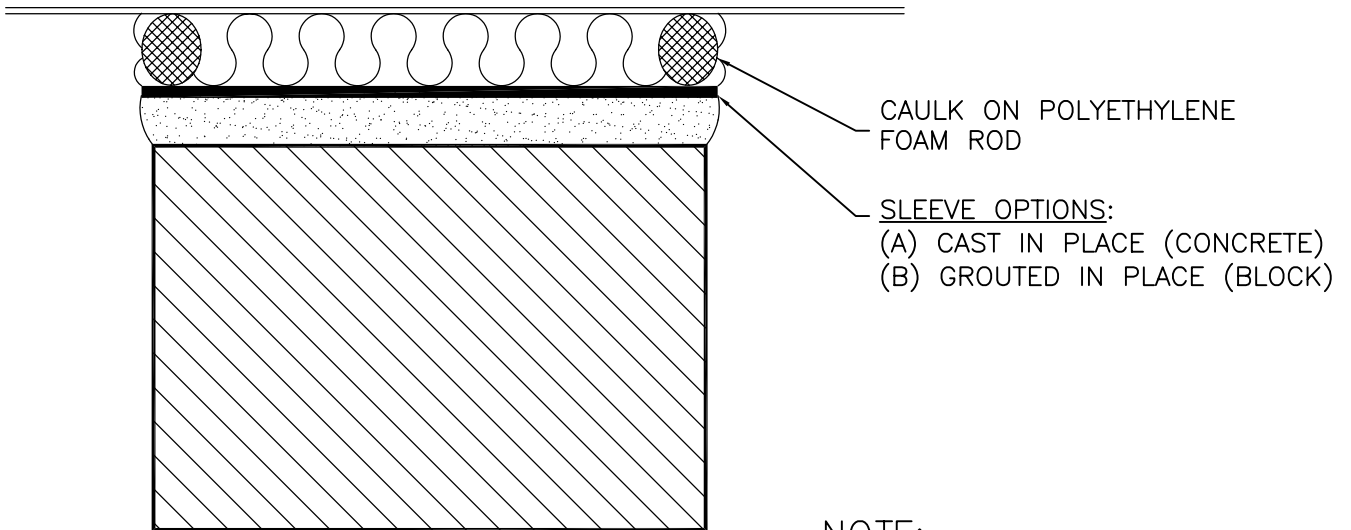
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<b>Title</b>	WIREWAY PENETRATIONS THROUGH SOUND ISOLATING WALLS FOR CONDUITS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD2330	<b>Rev.</b>	

filename:  
SD2350

date:  
01NOV95



SMALL CONDUIT



NOTE:  
SLAB PENETRATIONS SIMILAR  
WITH CAST-IN SLEEVE

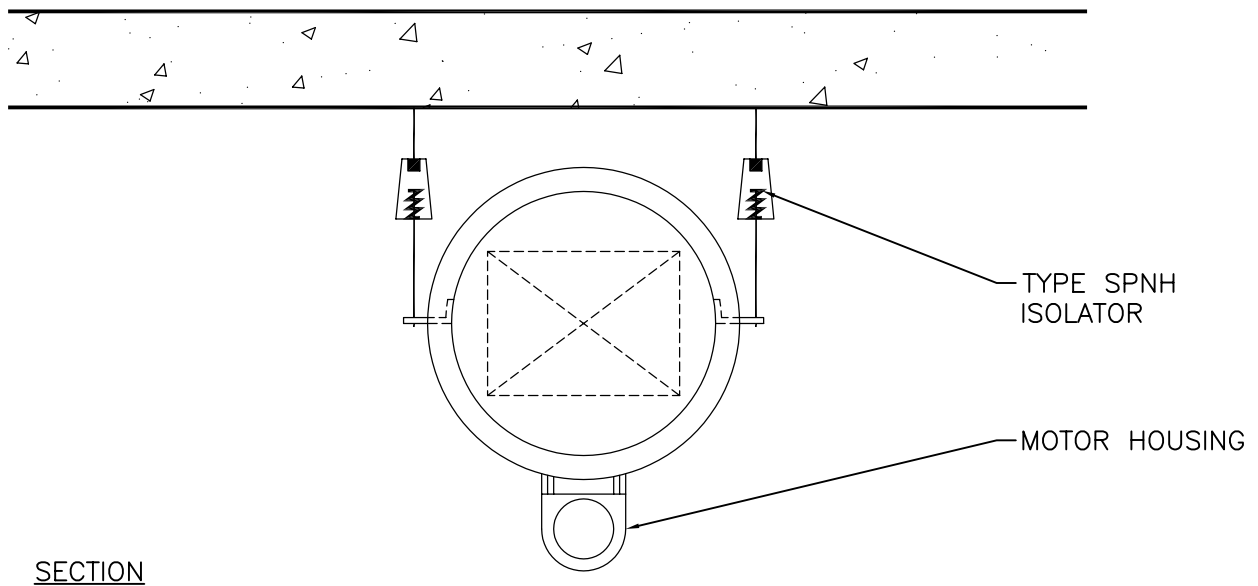
**ARTEC**

CONSULTANTS INC

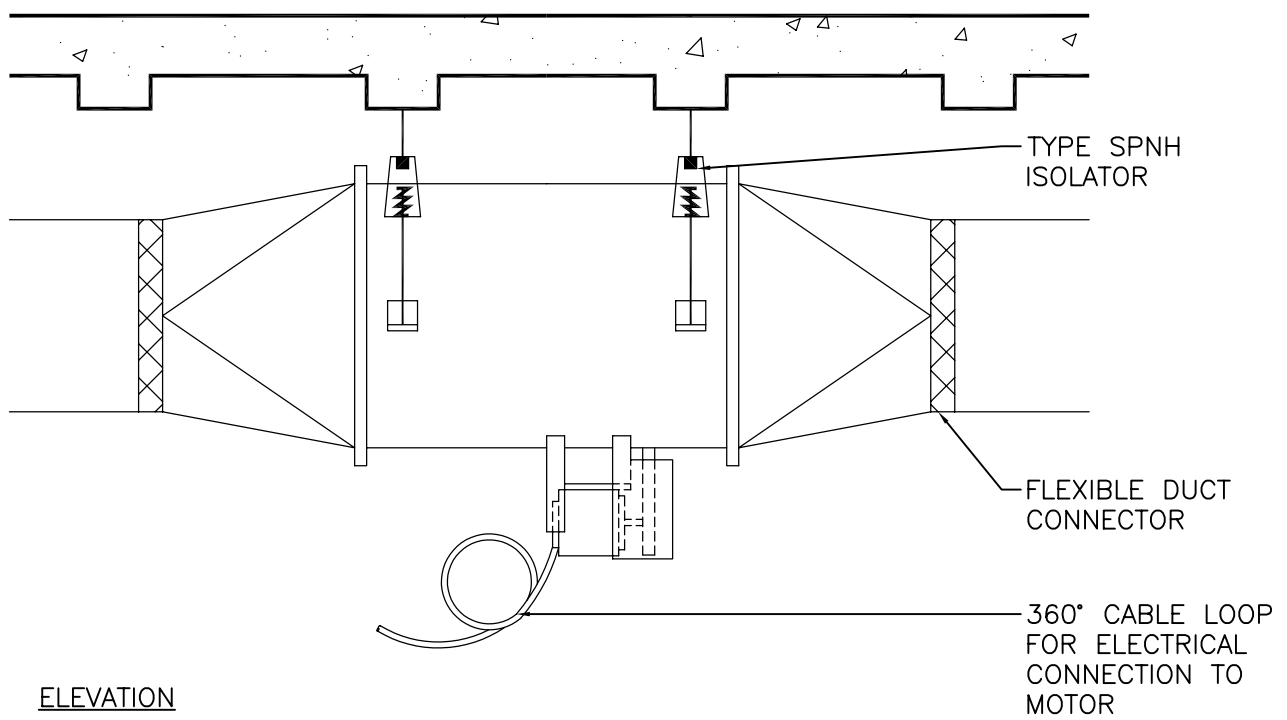
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	EA	Checked by	TAP	Date	19DEC06
Title	WALL PENETRATION FOR PIPE	Project No.	3760	Report No.	7742	Drawing No.	SD2350	Rev.	

filename: SD3120  
 date: 01NOV95



SECTION



ELEVATION

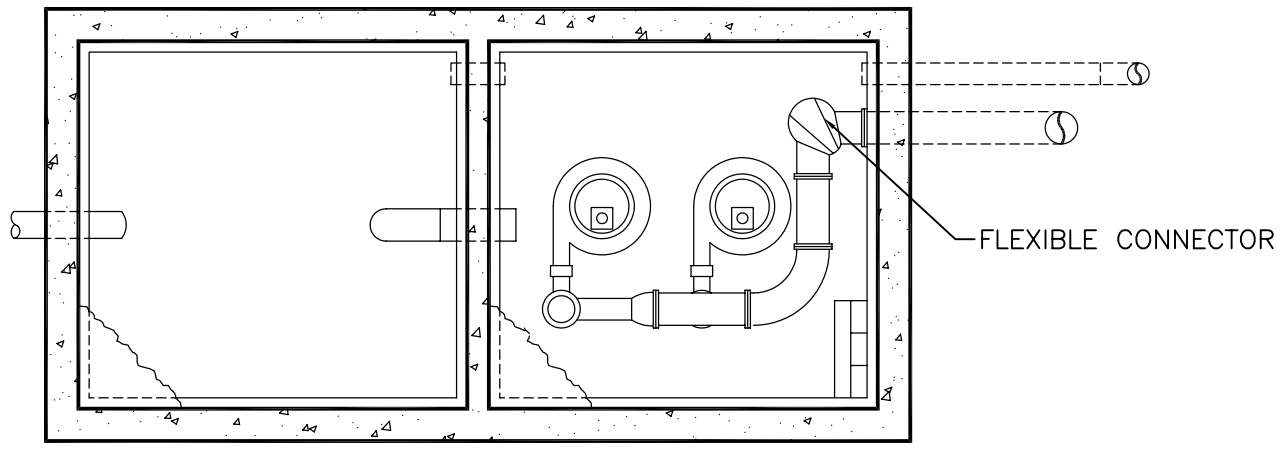
**ARTEC**

CONSULTANTS INC

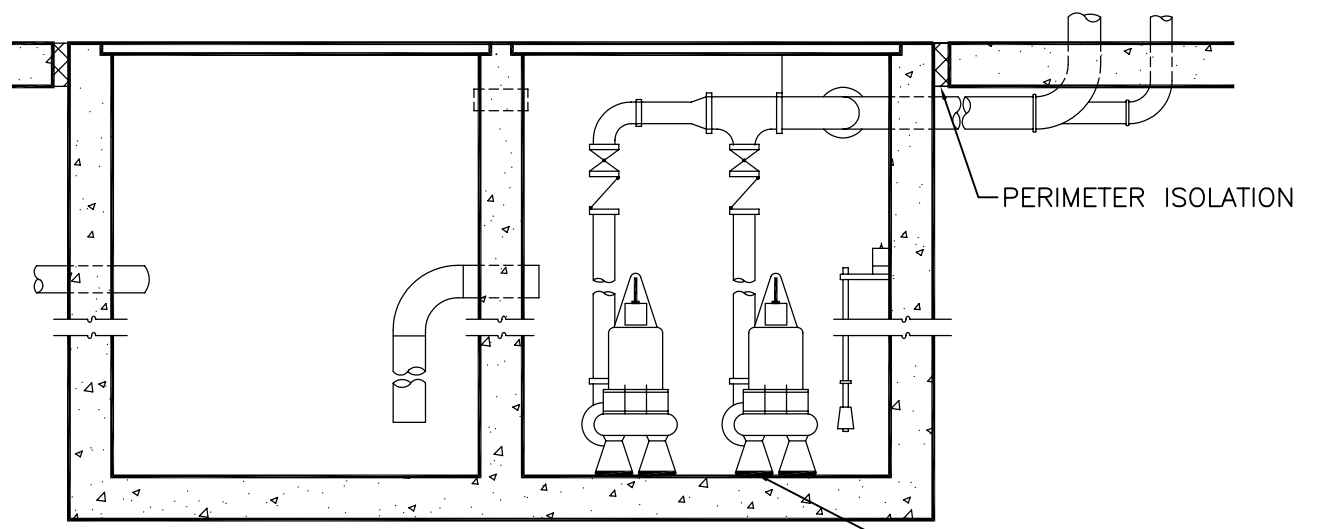
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	FAN ISOLATION (SUSPENDED)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3120	<b>Rev.</b>	





TOP VIEW



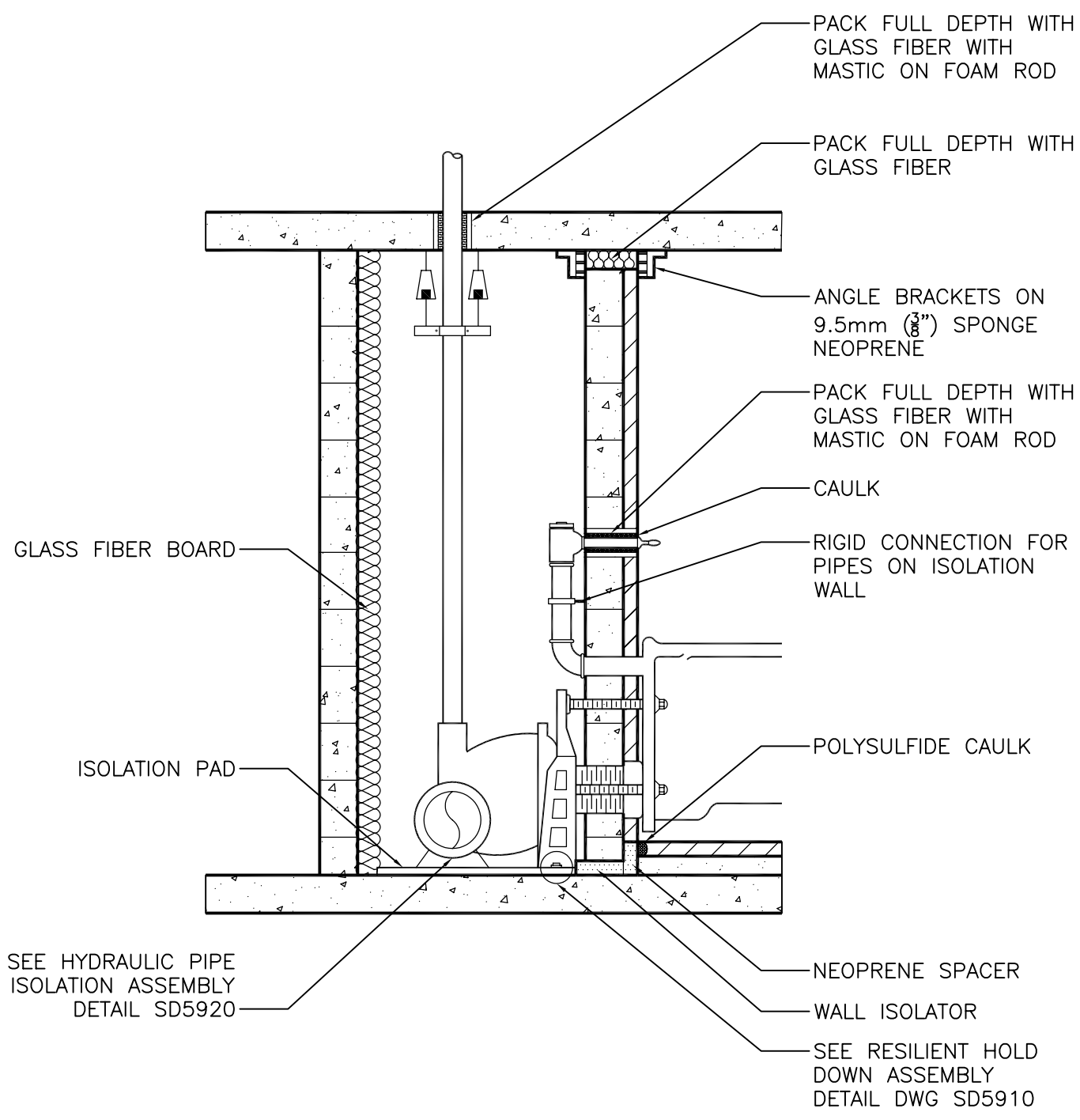
ELEVATION

# ARTEC

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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/TRP	<b>Checked by</b> TAP	<b>Date</b> 03JAN07
<b>Title</b> SUBMERSIBLE PUMP ISOLATION	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD3160	<b>Rev.</b>

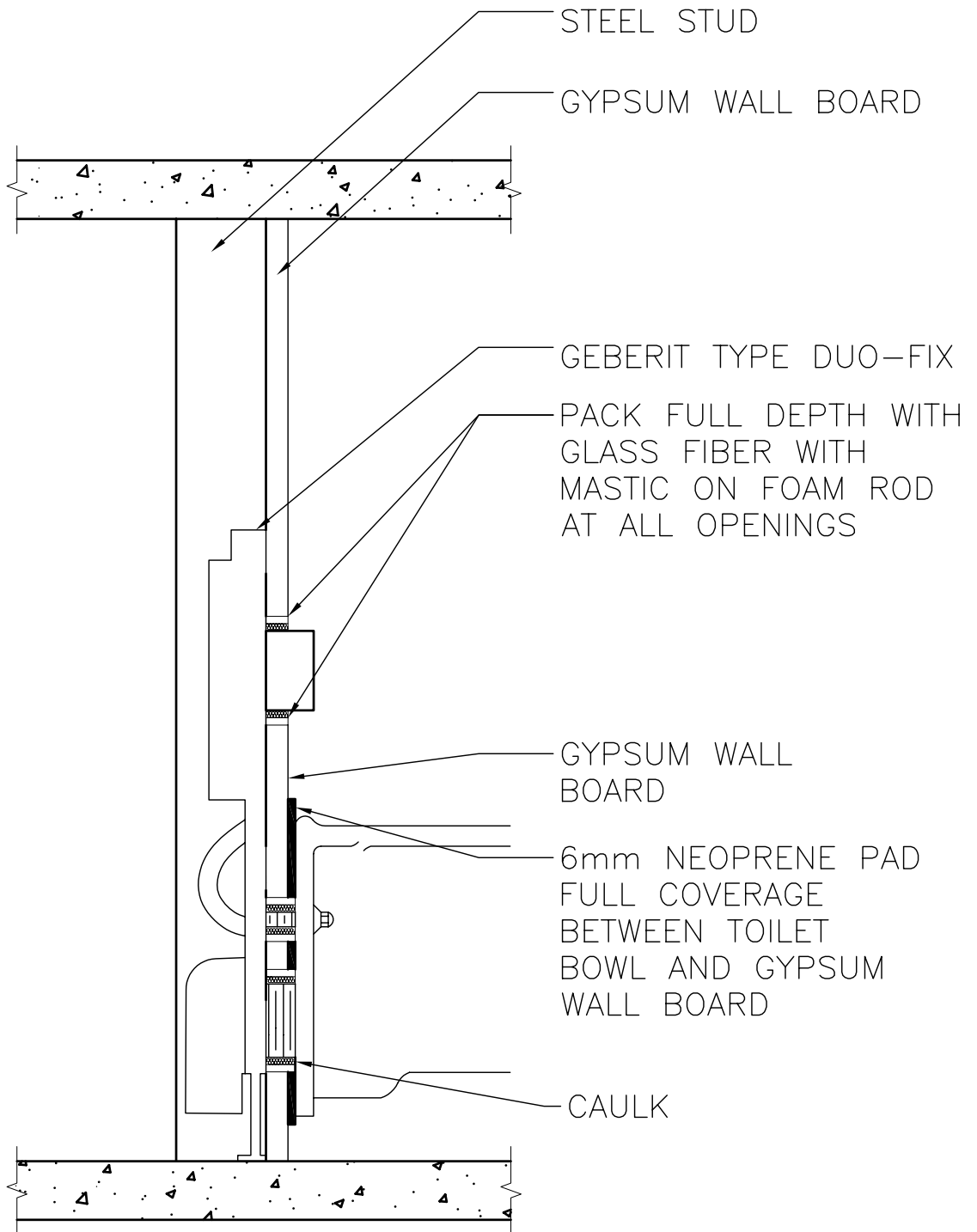


# ARTEC

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	WATER CLOSET ISOLATION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3170	<b>Rev.</b>	



# ARTEC

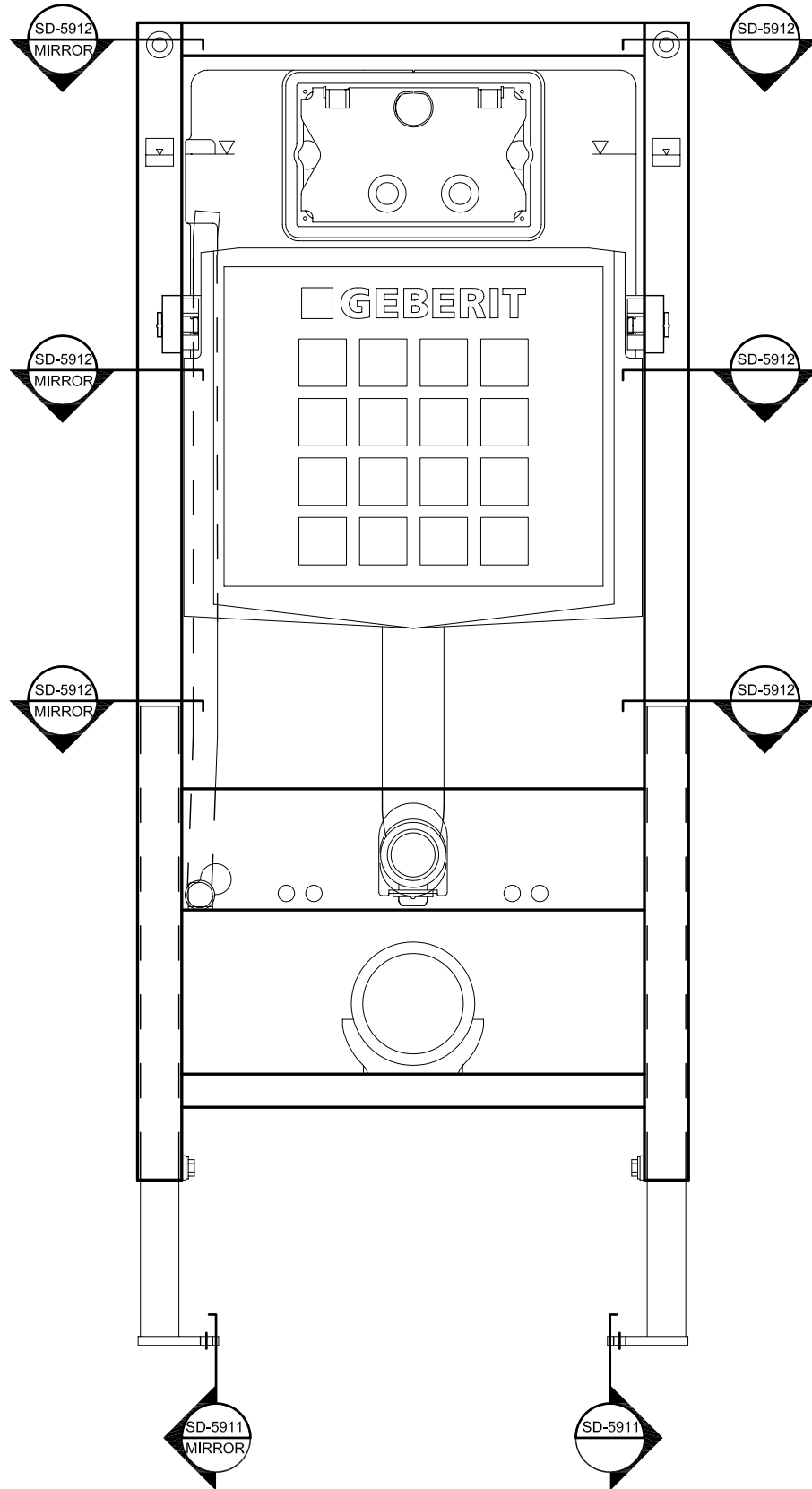
DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES

114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812

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Scale NTS	Drawn by JJH	Date 29 NOV 07	Project EAST HARBOUR PROJECT CCC REYKJAVÍK, ICELAND	Drawing No.
Project No. 3760	Checked by TAP	Rev.	Title WATER CLOSET ISOLATION USING GEBERIT TYPE DUO-FIX	<b>SD-3171</b>

filename:  
SD3172.dwg



**ARTEC**

DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES

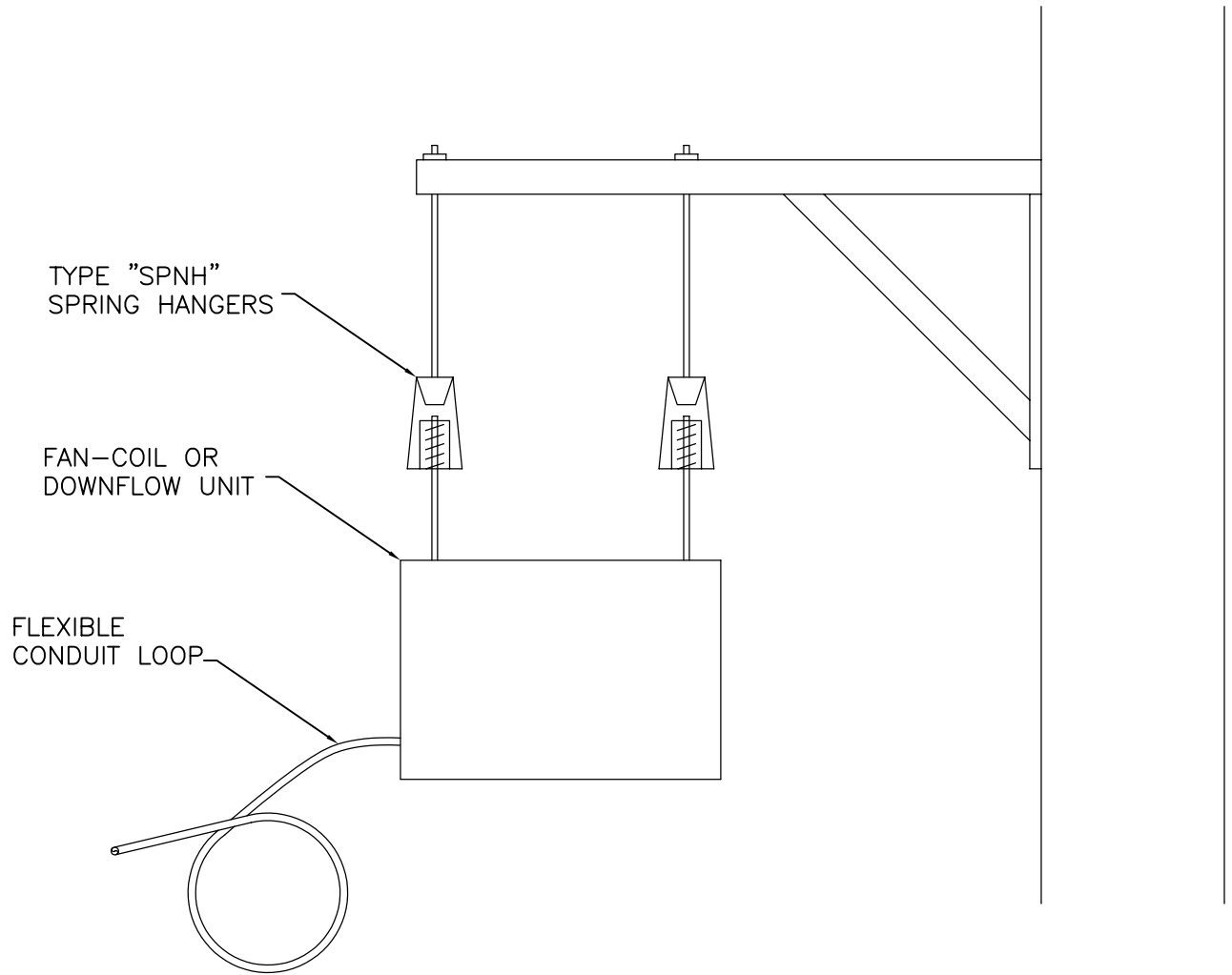
114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812

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Scale NTS	Drawn by JJH	Date 29 NOV 07	Project EAST HARBOUR PROJECT CCC REYKJAVÍK, ICELAND	Drawing No.
Project No. 3760	Checked by TAP	Rev.	Title FRONT ELEVATION DETAIL OF GEBERIT TYPE DUO-FIX	<b>SD-3172</b>

filename:  
SD4140

date:  
28NOV07



NOTE: FAN-COIL OR DOWNFLOW UNITS SHALL NOT BE WALL MOUNTED. THIS DETAIL SHALL BE FOLLOWED WHEN UNITS CAN NOT BE FLOOR OR CEILING MOUNTED.

# ARTEC

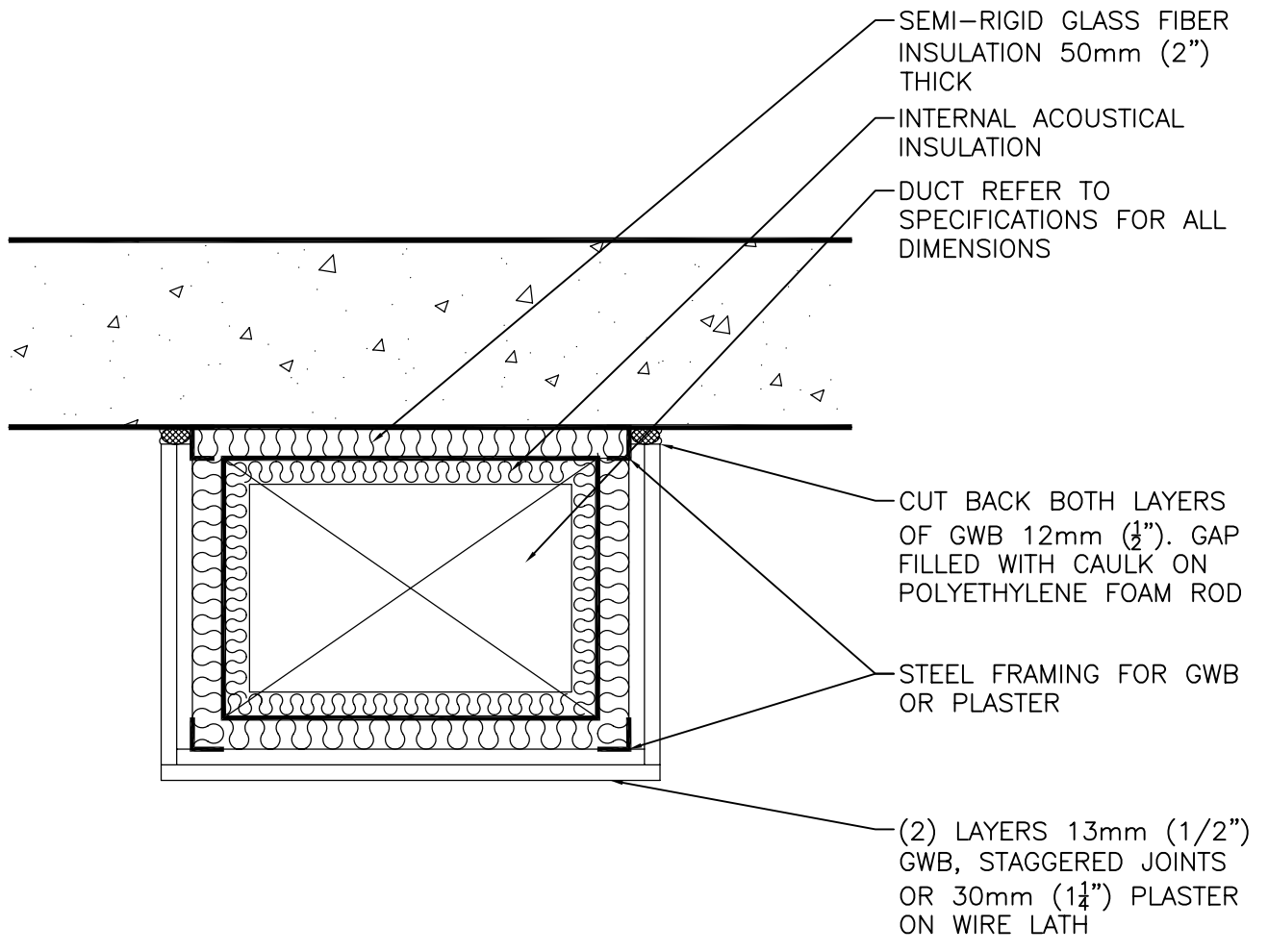
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	JMB/KWC	<b>Checked by</b>	TAP	<b>Date</b>	28NOV07
<b>Title</b>	ISOLATION OF SUSPENDED FAN COIL OR DOWNFLOW UNITS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3180	<b>Rev.</b>	

filename:  
SD3210

date:  
01NOV95



**NOTE**  
SEE DRAWING SD2110,  
SD2120, SD2130, SD2140  
AND SD2150 FOR  
PENETRATION OF WALL.

SEE DRAWING SD3220 FOR  
SUSPENDED DUCT.

# ARTEC

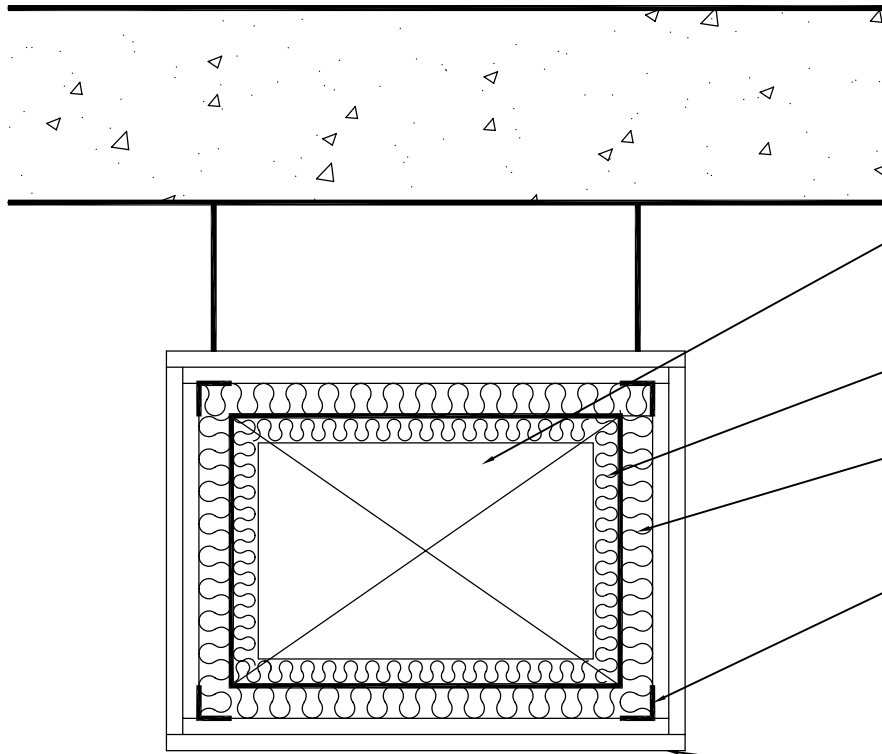
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	03JAN07
<b>Title</b>	GYPSUM WALL BOARD (GWB)/ PLASTER LAGGING OF DUCTS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3210	<b>Rev.</b>	

filename:  
SD3220

date:  
25AUG90



DUCT REFER TO SPECIFICATIONS FOR ALL DIMENSIONS

INTERNAL ACOUSTICAL INSULATION

SEMI-RIGID GLASS FIBER INSULATION 50mm (2") THICK

STEEL FRAMING FOR GWB OR PLASTER

(2) LAYERS 13mm (1/2") GWB, STAGGERED JOINTS OR 30mm (1 1/4") PLASTER ON WIRE LATH, FULL PERIMETER

**NOTE**  
SEE DRAWING SD2110, SD2120, SD2130, SD2140 AND SD2150 FOR PENETRATION OF WALL.

SEE DRAWING SD3210 FOR FLUSH MOUNTED DUCT.

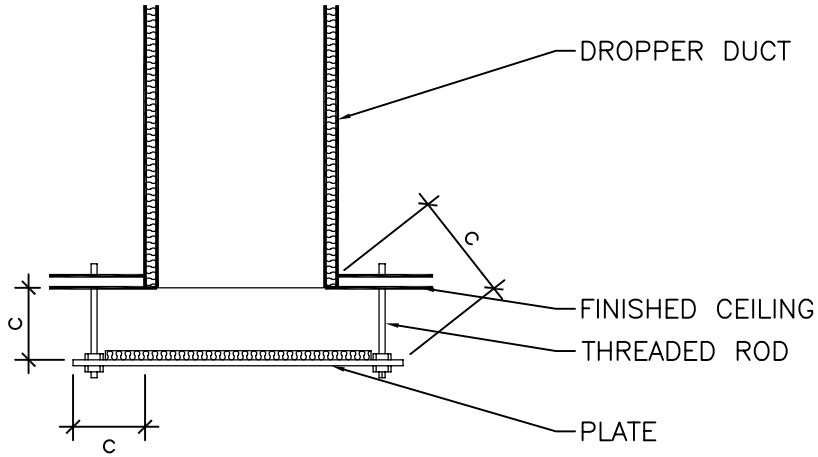
# ARTEC

CONSULTANTS INC

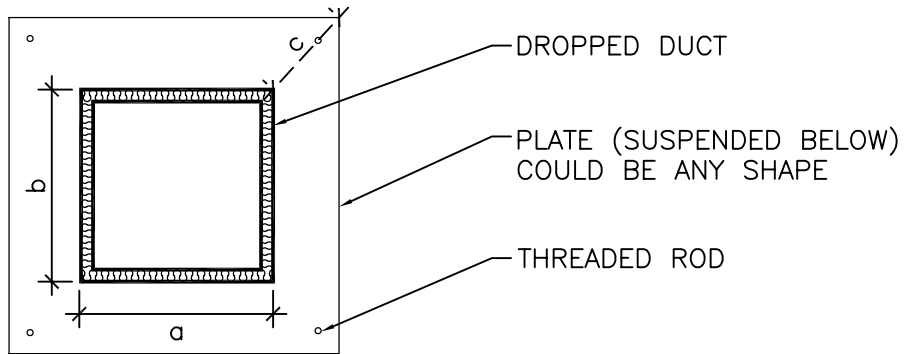
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/TRP	<b>Checked by</b> TAP	<b>Date</b> 03JAN07
<b>Title</b> GYPSUM WALL BOARD (GWB)/PLASTER (SUSP) LAGGING OF DUCTS, FULL PERIMETER	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD3220	<b>Rev.</b>

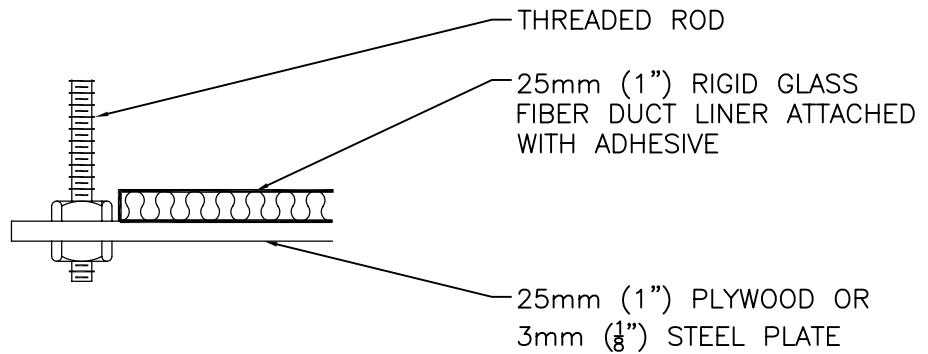
SECTION



PLAN



DETAIL



CROSS SECTIONAL AREA =  $a \times b$

EFFECTIVE FREE AREA =  $(2a + 2b) \times c$

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

$(2a + 2b) \times c \approx 1.5 a \times b$

**ARTEC**

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	AIR DIFFUSING PLATES	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3230	<b>Rev.</b>	



$$R_1 = R/CR$$

$$R_2 = R_1/CR = R/CR^2$$

$$R_3 = R_2/CR = R/CR^3$$

where:

R = HEEL THROAT RADIUS

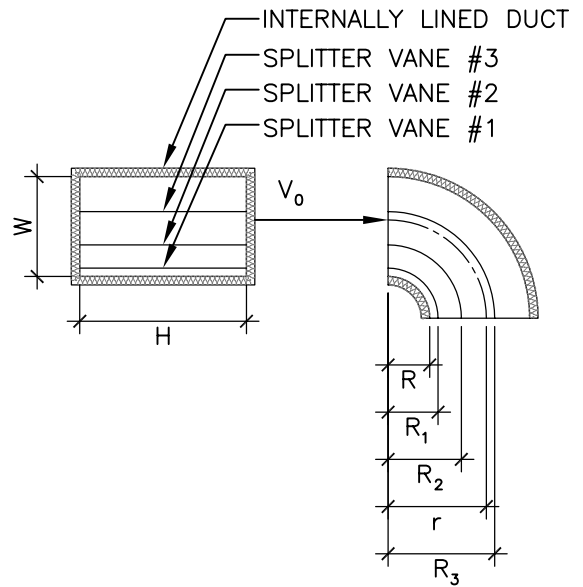
R<sub>1</sub> = SPLITTER VANE #1 RADIUS

R<sub>2</sub> = SPLITTER VANE #2 RADIUS

R<sub>3</sub> = SPLITTER VANE #3 RADIUS

CR = 'CURVE RATIO' (see table for values)

r = CENTER LINE RADIUS



R/W	r/W	CR
0.05	0.55	0.467
0.10	0.60	0.549
0.15	0.65	0.601
0.20	0.70	0.639
0.25	0.75	0.669
0.30	0.80	0.693
0.35	0.85	0.714
0.40	0.90	0.731
0.45	0.95	0.746
0.50	1.00	0.760

**NOTES:**

IN SITUATIONS WHERE SPACE RESTRICTIONS PROHIBIT THE USE OF ELBOWS 1½ 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.

**ARTEC**

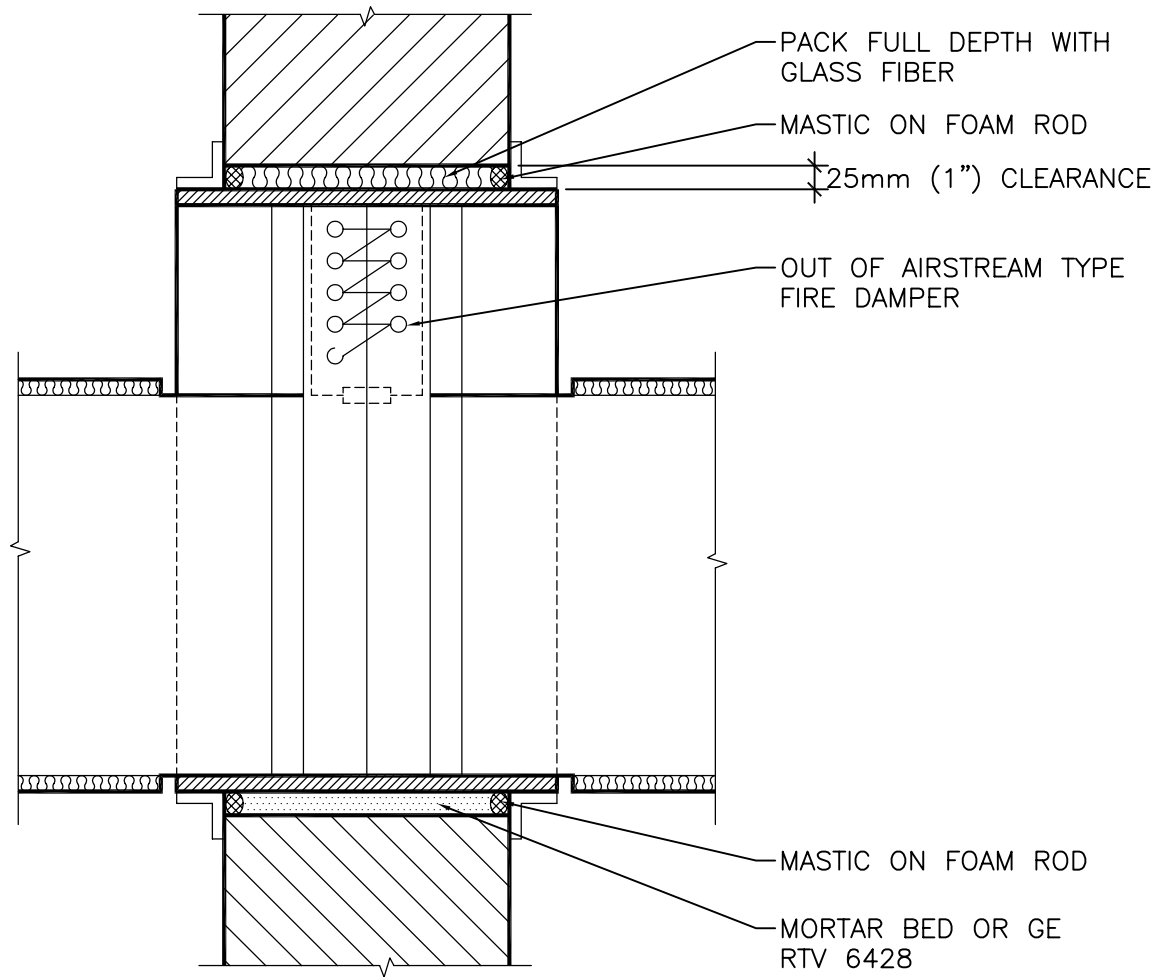
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	ELBOW, SMOOTH RADIUS W/SPLITTER VANES - RECTANGULAR	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3250	<b>Rev.</b>	

filename:  
SD3310

date:  
18DEC90



# ARTEC

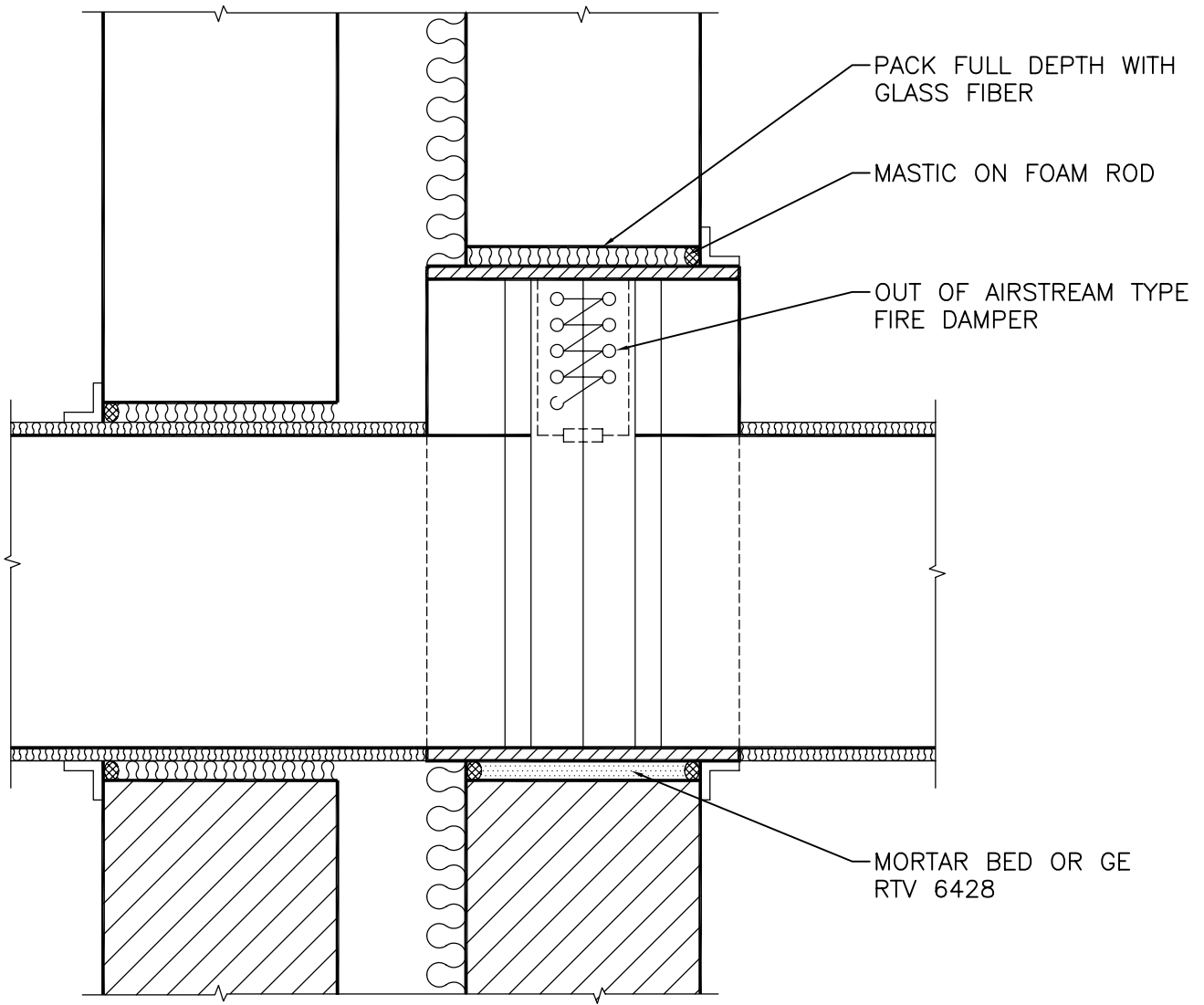
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	FIRE DAMPER – SINGLE ISOLATING WALL	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3310	<b>Rev.</b>	

filename:  
SD3320

date:  
19DEC90



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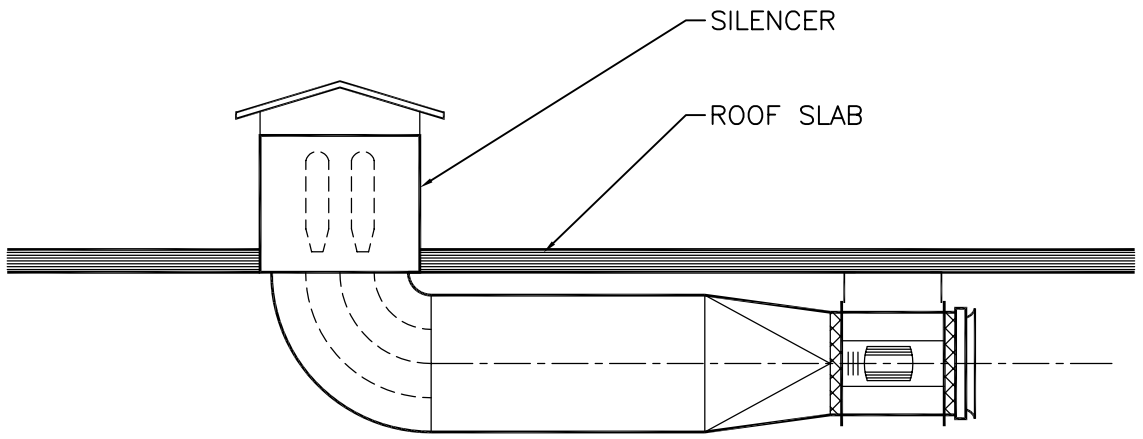
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	FIRE DAMPER – DOUBLE ISOLATING WALL	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3320	<b>Rev.</b>	

filename:  
SD3340

date:  
01NOV95



SMOKE EXHAUST SYSTEM

**ARTEC**

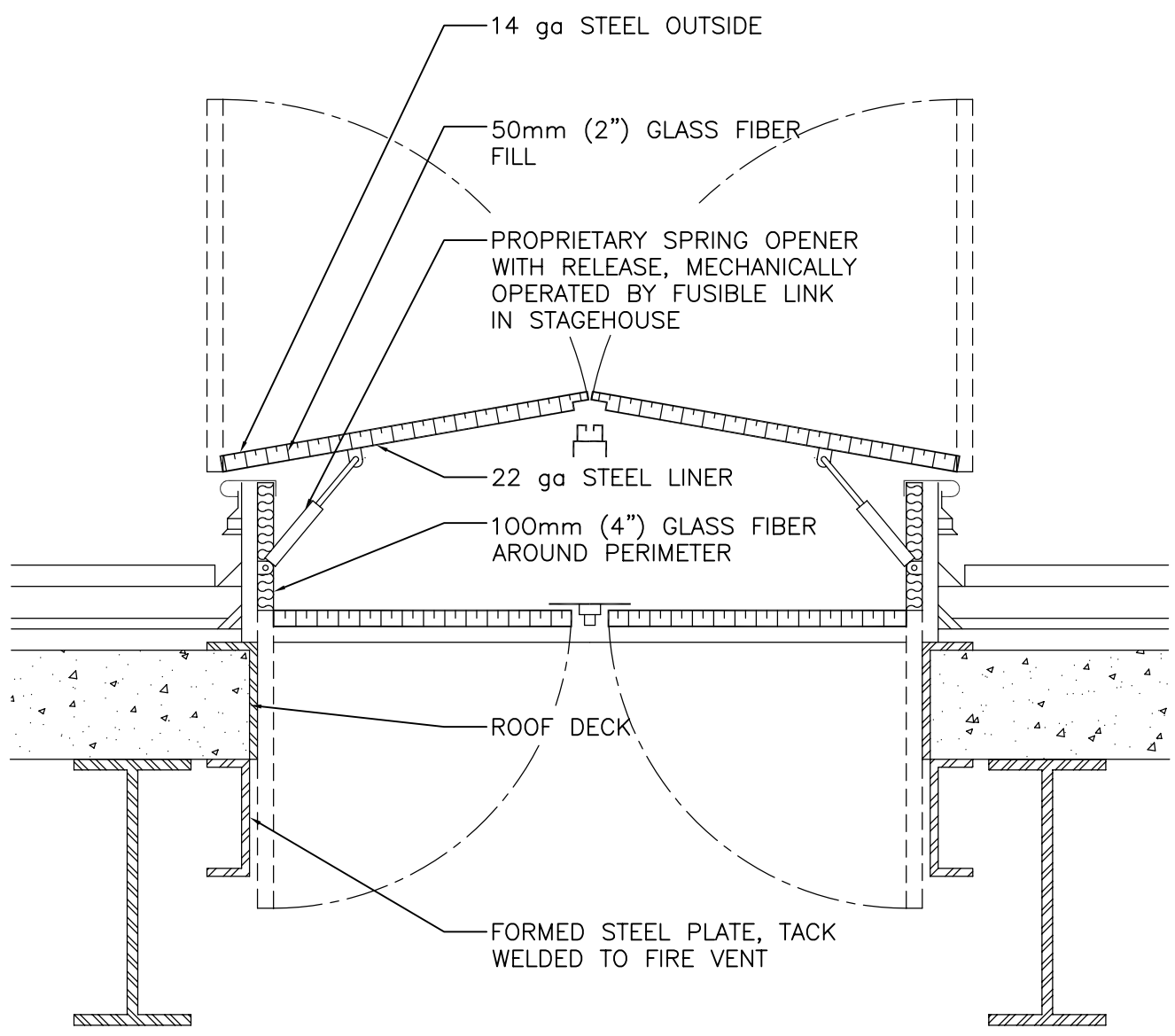
CONSULTANTS INC

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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/TRP	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> SMOKE EXHAUST SYSTEM	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD3340	<b>Rev.</b>

filename:  
SD3350

date:  
01NOV95



NOTES:

FIRE VENT OPENING TO BE CLEAR OF ALL OBSTRUCTIONS

NEOPRENE GASKETS AT PERIMETER OF ALL DOORS

**ARTEC**

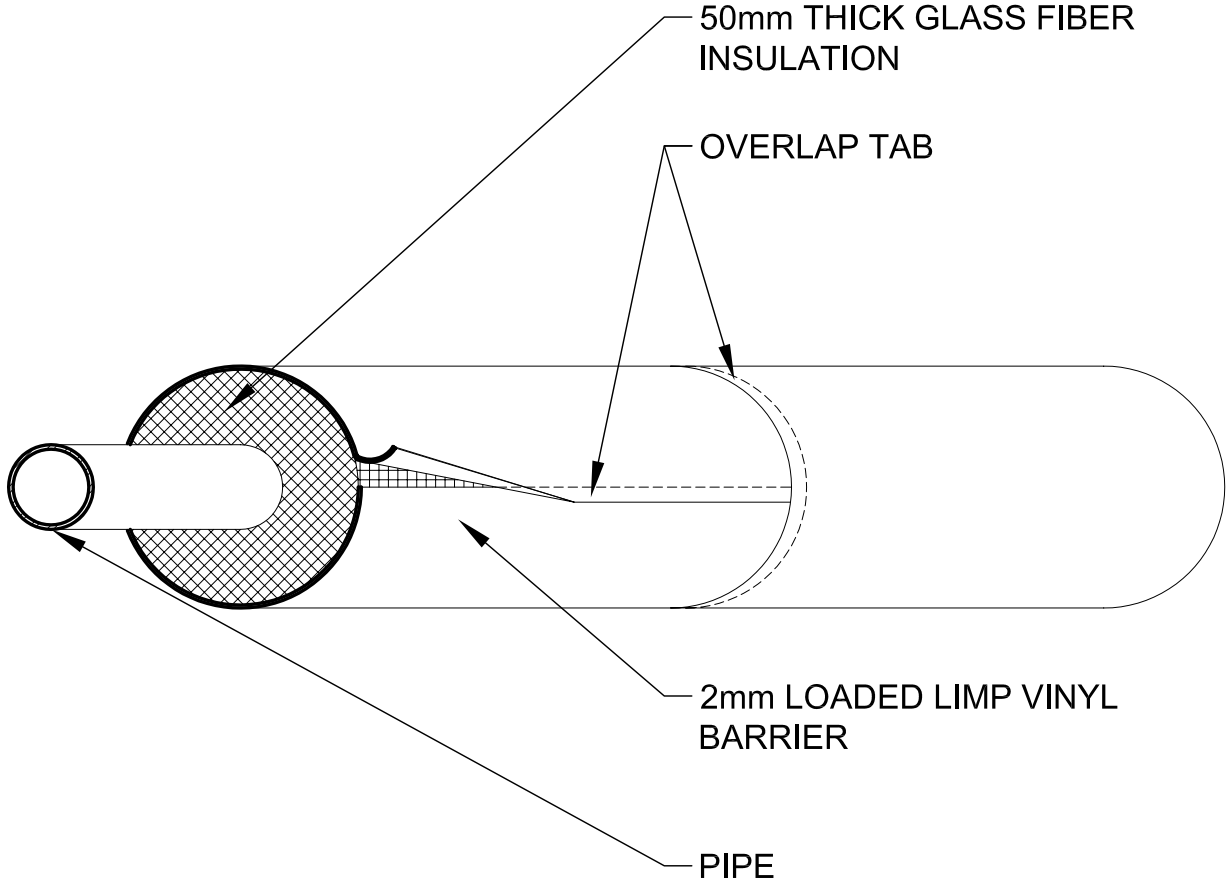
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114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	SOUND ISOLATING SMOKE VENT (AFTER BILCO ACDSH-4890)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD3350	<b>Rev.</b>	

filename:  
SD3410

date:  
07MAY04



# ARTEC

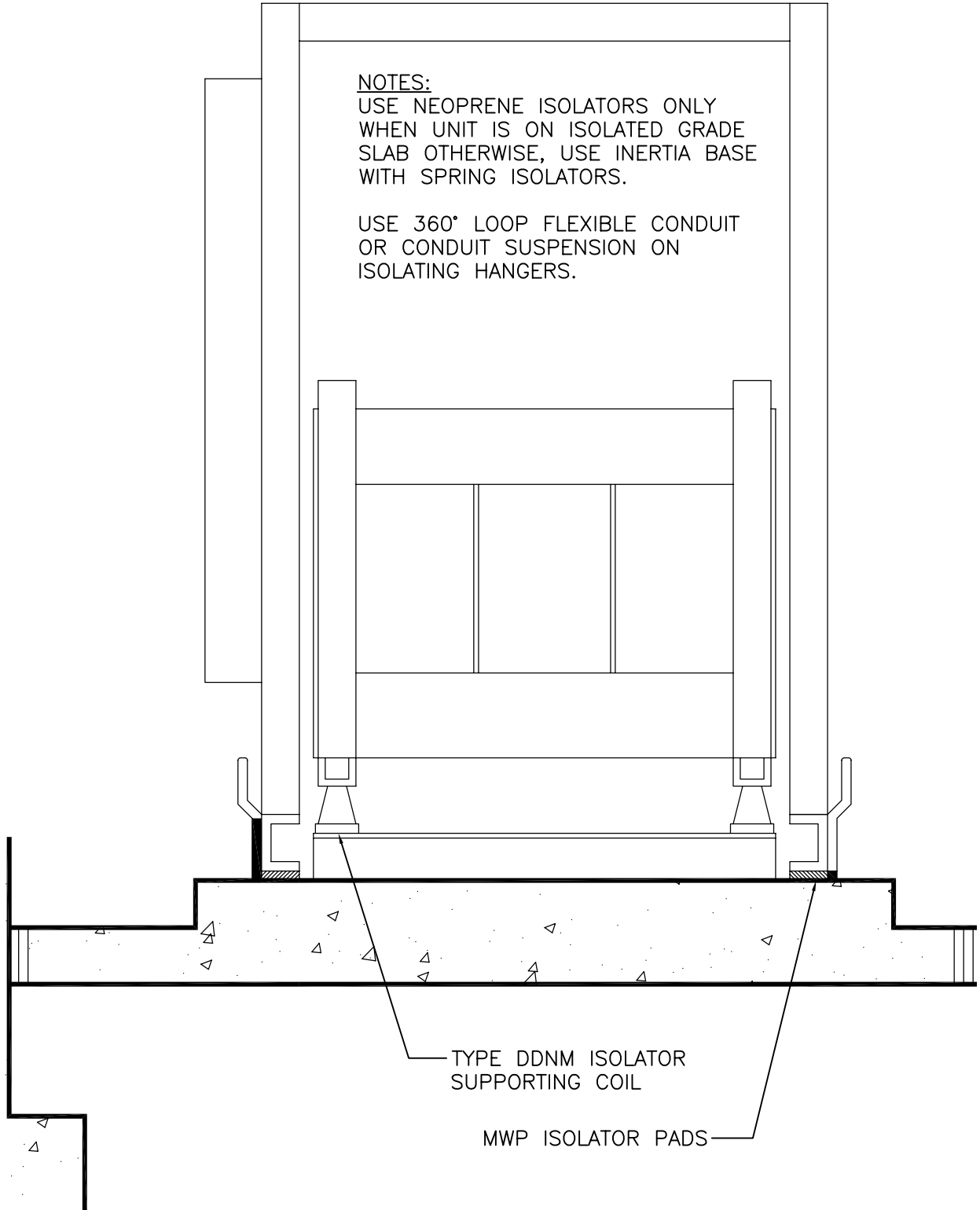
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Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	Drawn by	Checked by	Date
		NTS	TRP	TAP	04JAN07
Title	ACOUSTIC ISOLATION LAGGING OF PIPES	Project No.	Report No.	Drawing No.	Rev.
		3760	7742	SD3410	

filename:  
SD4110

date:  
01NOV95



# ARTEC

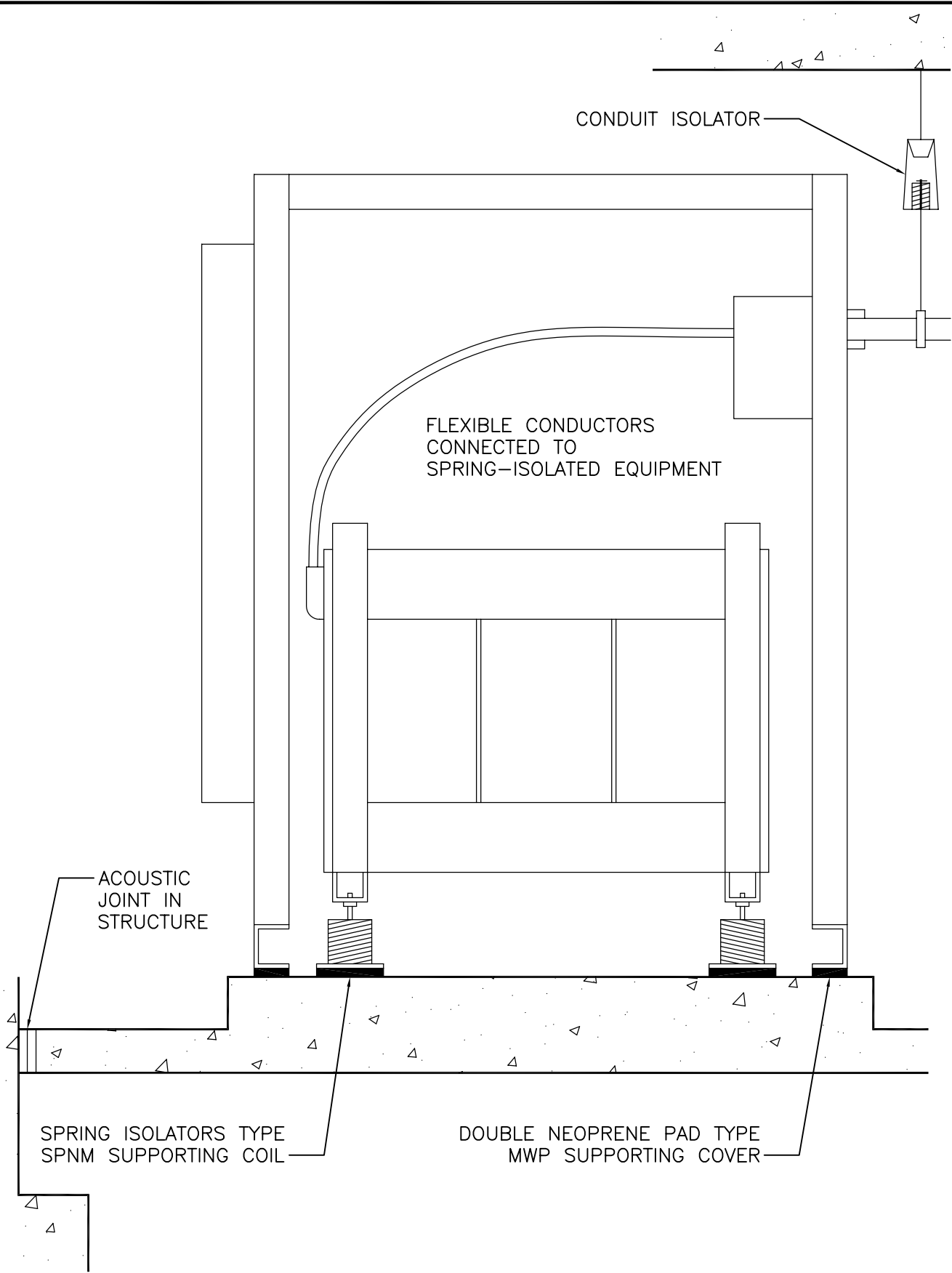
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	EA/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	TRANSFORMER ISOLATION (ON GRADE SLAB)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD4110	<b>Rev.</b>	

filename:  
SD4120

date:  
01NOV95



# ARTEC

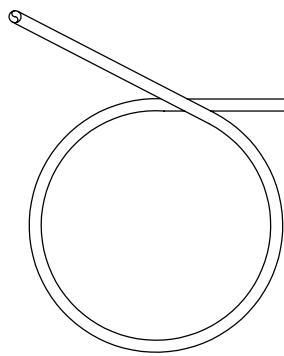
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

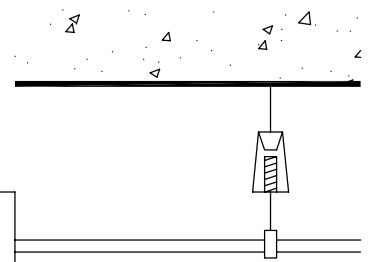
<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/TRP	<b>Checked by</b> TAP	<b>Date</b> 05JAN07
<b>Title</b> TRANSFORMER-INTERNAL SPRING ISOLATOR	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD4120	<b>Rev.</b>



ALTERNATE B:  
360° LOOP OF  
FLEXIBLE CONDUIT  
AND CONNECTORS



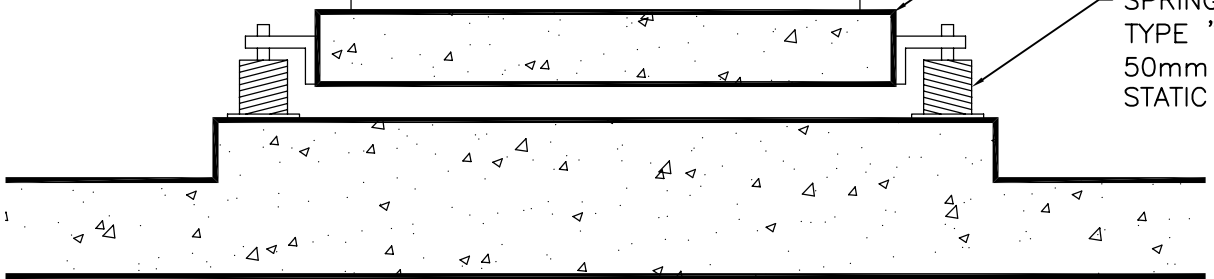
ALTERNATE A:  
ISOLATED CONDUIT



TRANSFORMER

CONCRETE  
INERTIA BASE

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



USE: TRANSFORMERS >40 KW WHEN UNIT DOES  
NOT HAVE INTERIOR SPRING ISOLATORS.

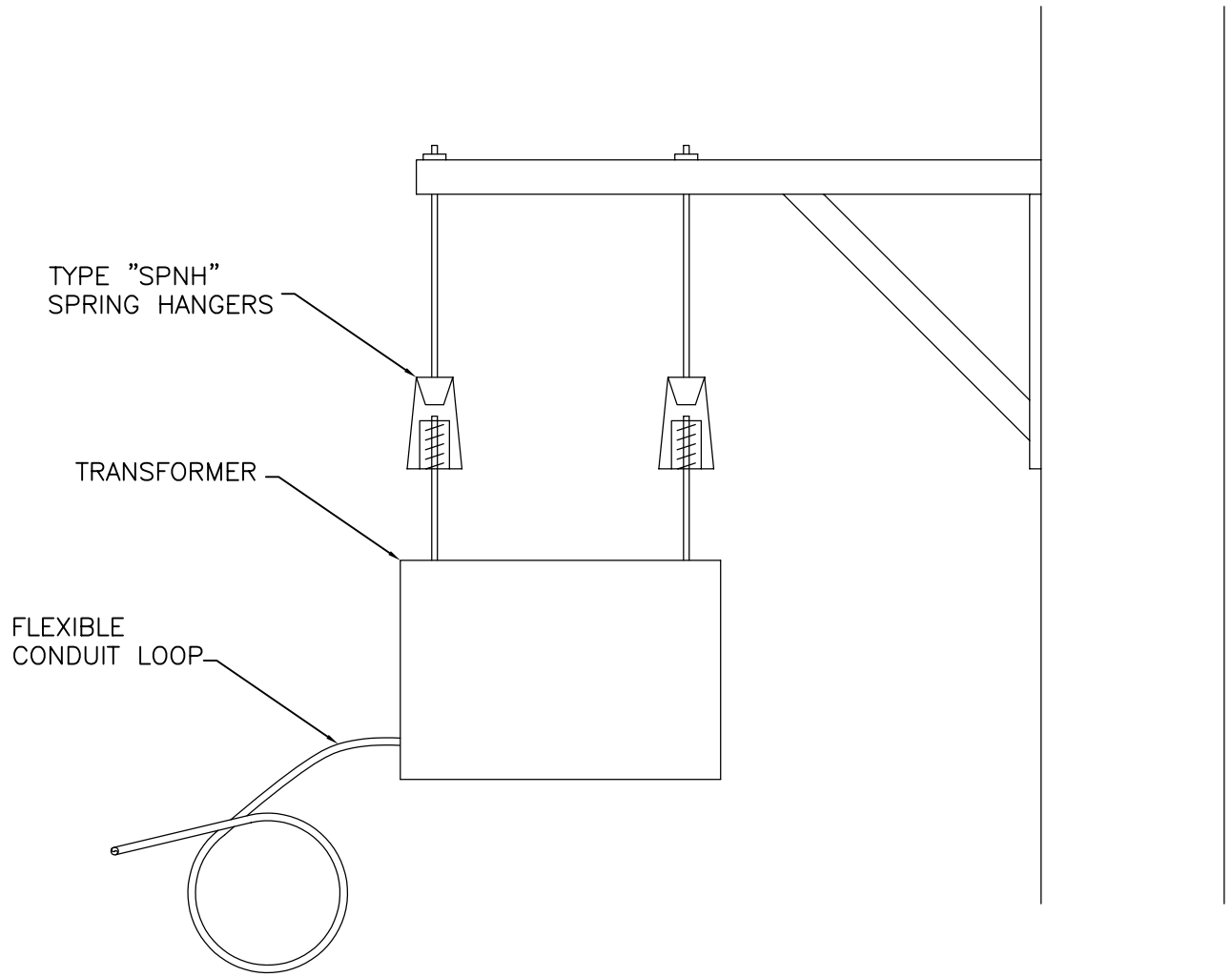
**ARTEC**

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114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	EPA/KWC	Checked by	TAP	Date	05JAN07
Title	TRANSFORMERS ON INERTIA BASE	Project No.	3760	Report No.	7742	Drawing No.	SD4130	Rev.	

filename: SD4140  
 date: 01NOV95



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.

# ARTEC

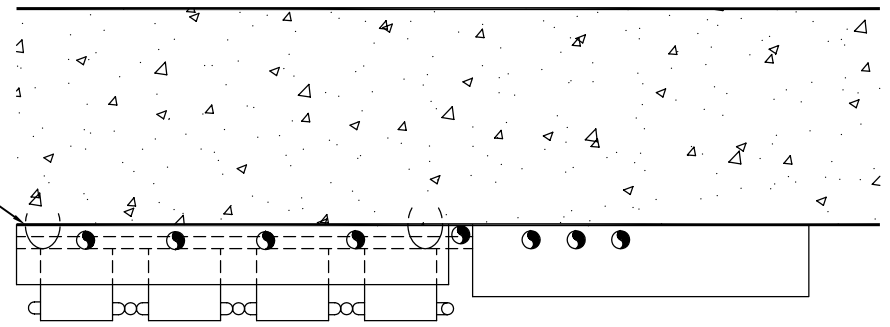
CONSULTANTS INC

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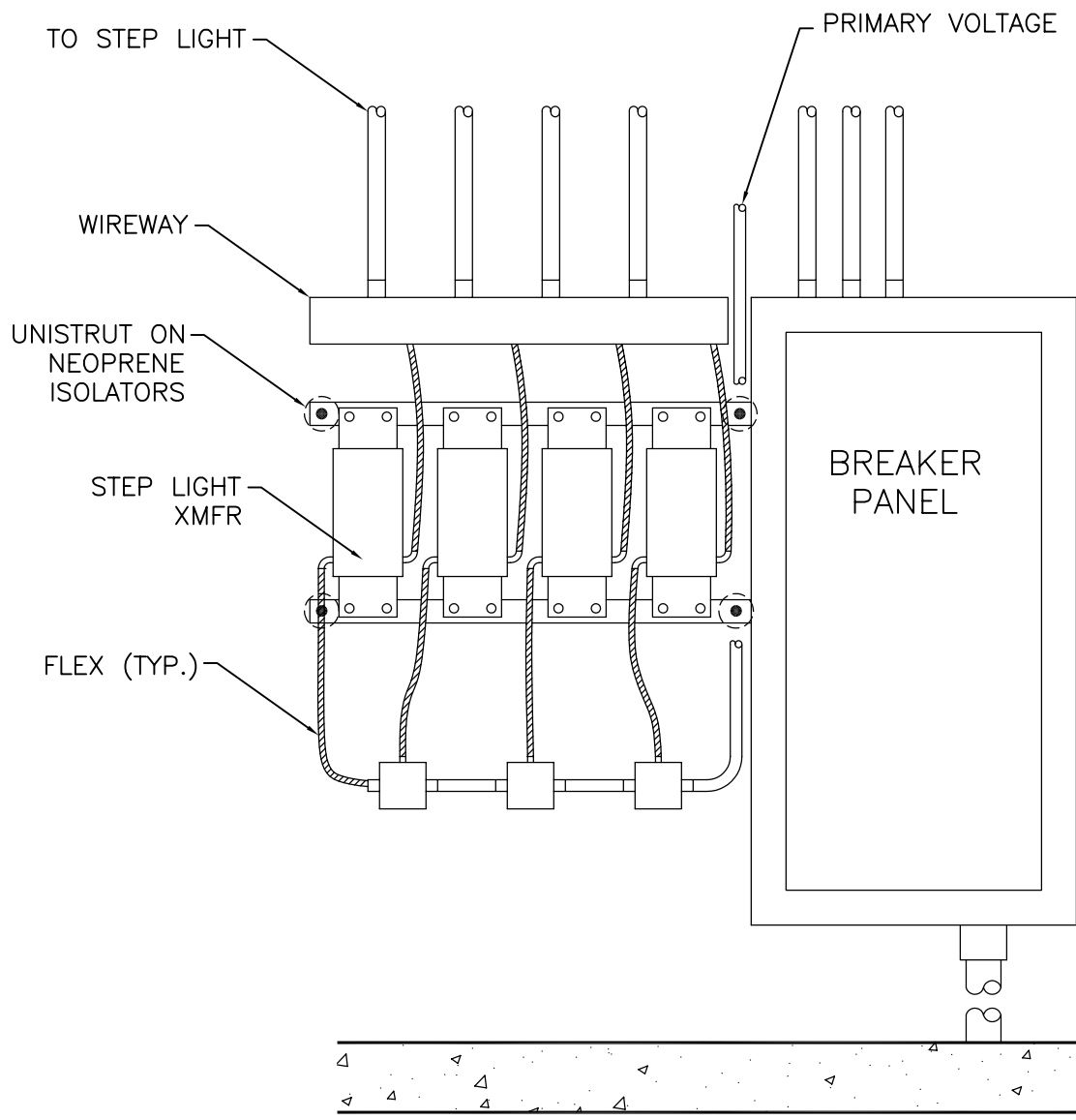
<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	JMB/KWC	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	ISOLATION OF SUSPENDED TRANSFORMER	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD4140	<b>Rev.</b>	

filename: SD4150  
 date: 01NOV95

MASON TYPE  
 RBA-45  
 ISOLATOR  
 (TYP. OF 4)



PLAN VIEW



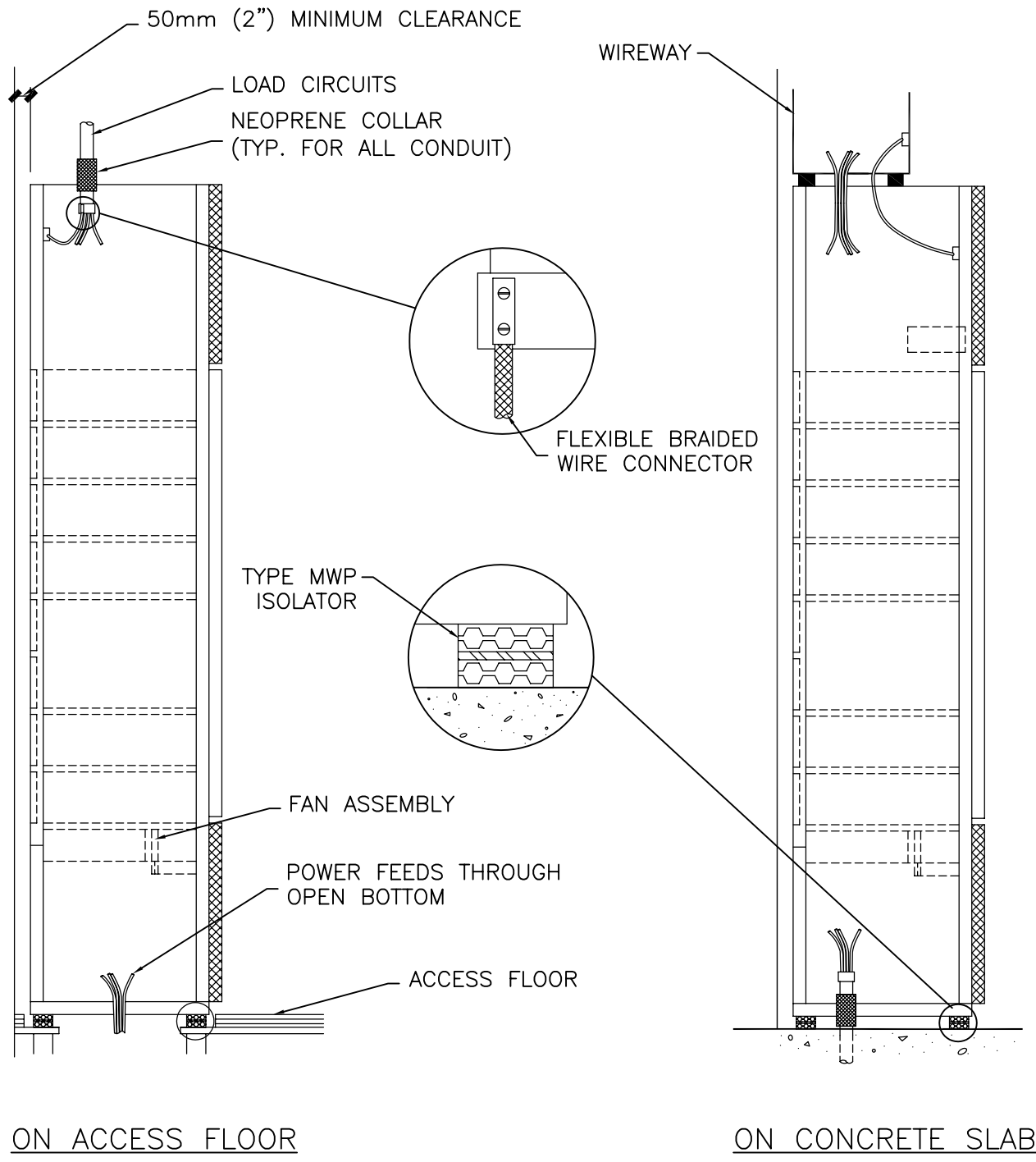
**ARTEC**

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114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	EA/KWC	Checked by	TAP	Date	04JAN07
Title	STEP LIGHT TRANSFORMER ISOLATION	Project No.	3760	Report No.	7742	Drawing No.	SD4150	Rev.	

filename: SD4210  
 date: 01NOV95

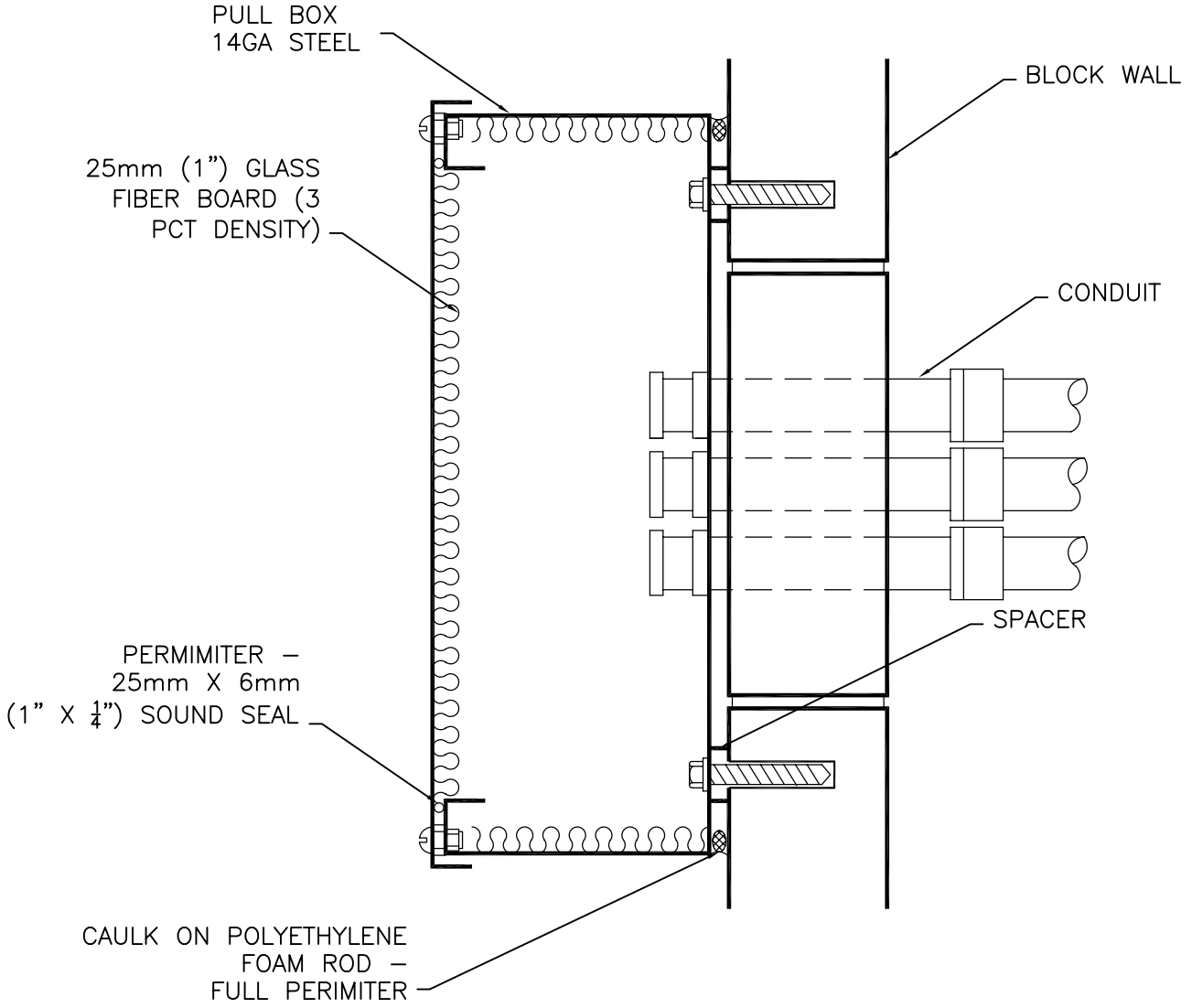


# ARTEC

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114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/KWC	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	DIMMER RACK ISOLATION	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD4210	<b>Rev.</b>	



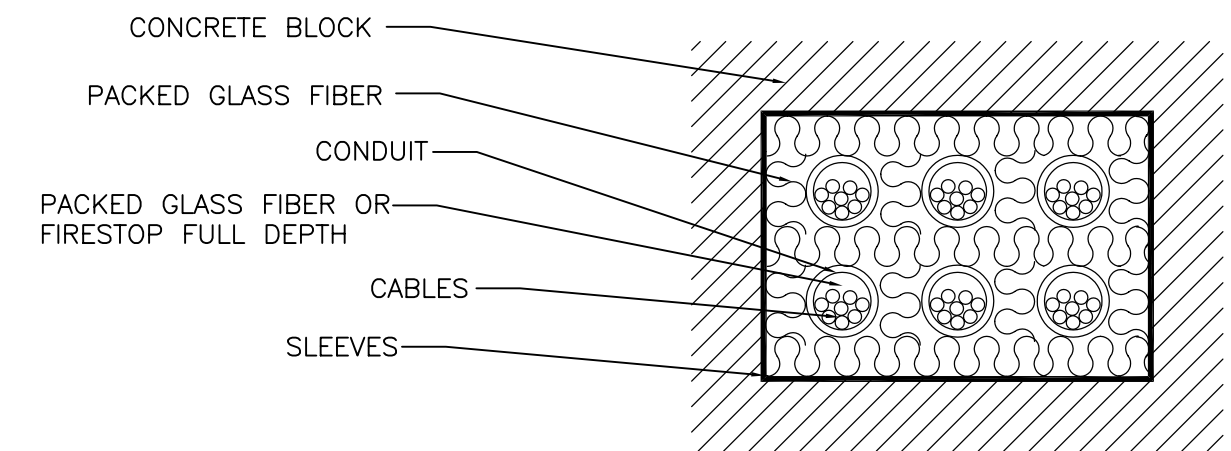
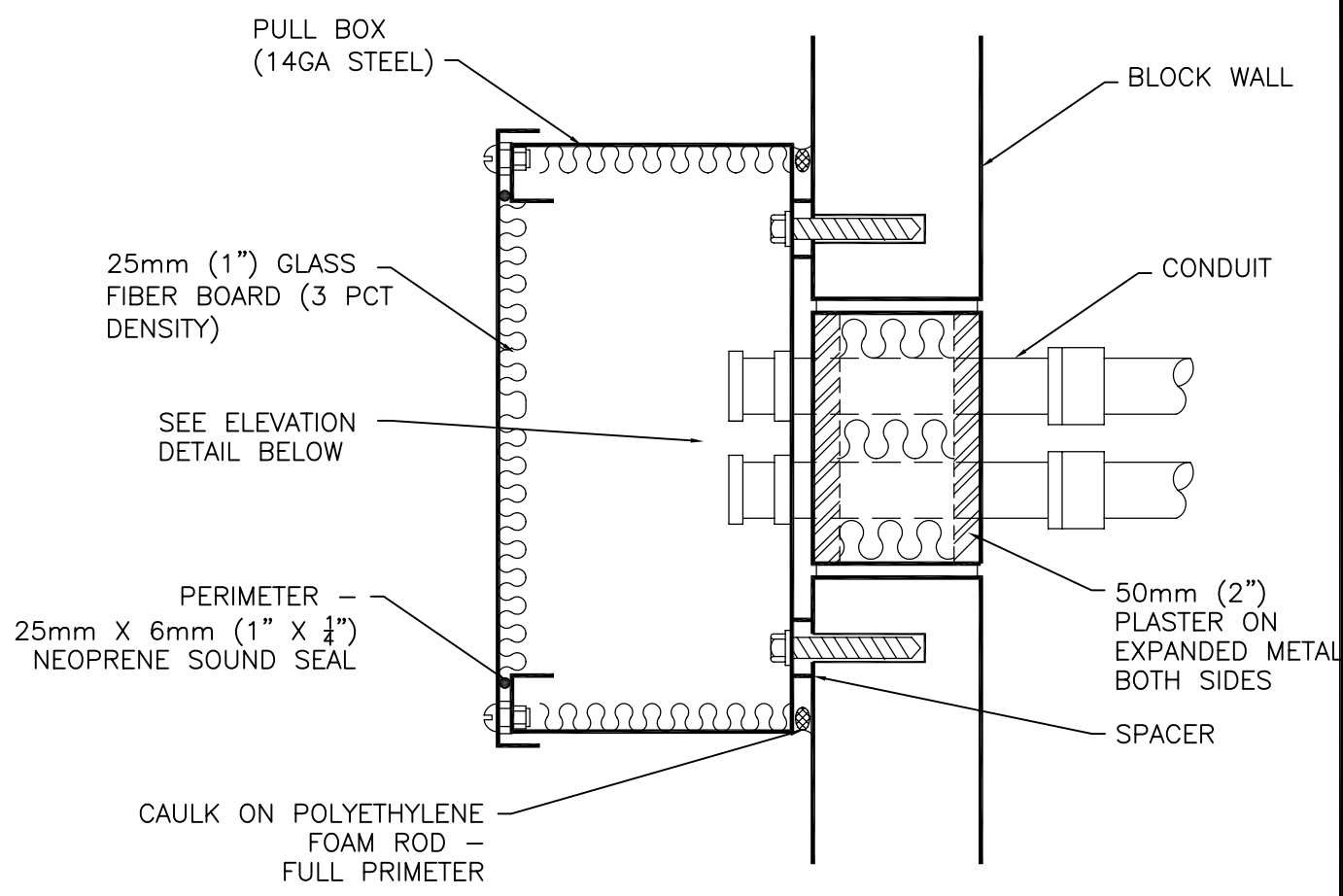
# ARTEC

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<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> JMB/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> ACOUSTICALLY SEALED PULL BOX	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD4310	<b>Rev.</b>

filename: SD4320  
 date: 01NOV95



- 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.

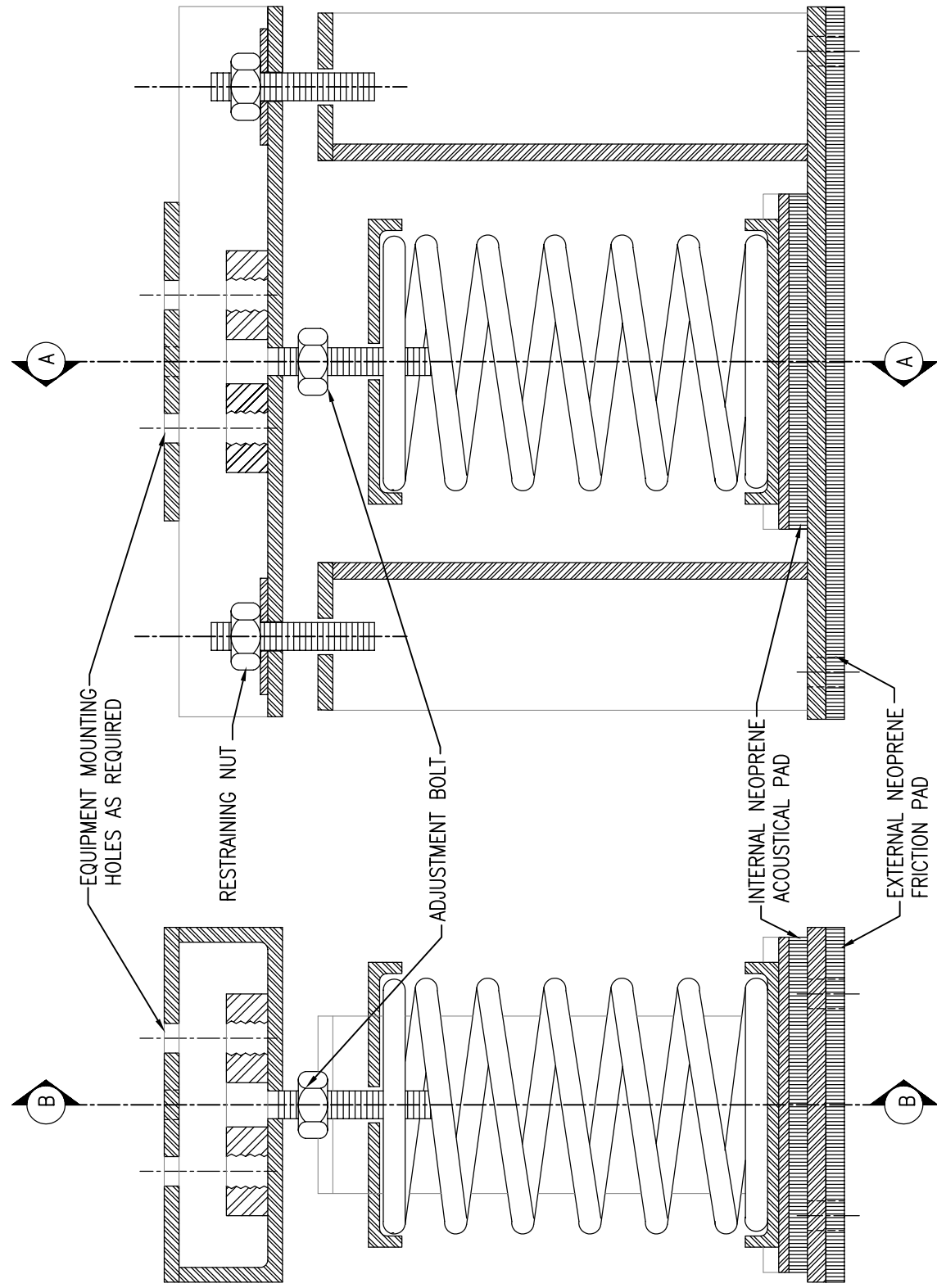
**NOTE:**  
 SPECIAL ALTERNATE FOR EXISTING CONDITIONS ONLY. DO NOT USE FOR NEW CONSTRUCTION.

**ARTEC**

CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> JMB/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> ACOUSTICALLY SEALED PULL BOX	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD4320	<b>Rev.</b>



SECTION/ELEVATION  
B-B

SECTION/ELEVATION  
A-A

FOR INFORMATION ONLY  
 NOT FOR CONSTRUCTION

**ARTEC**

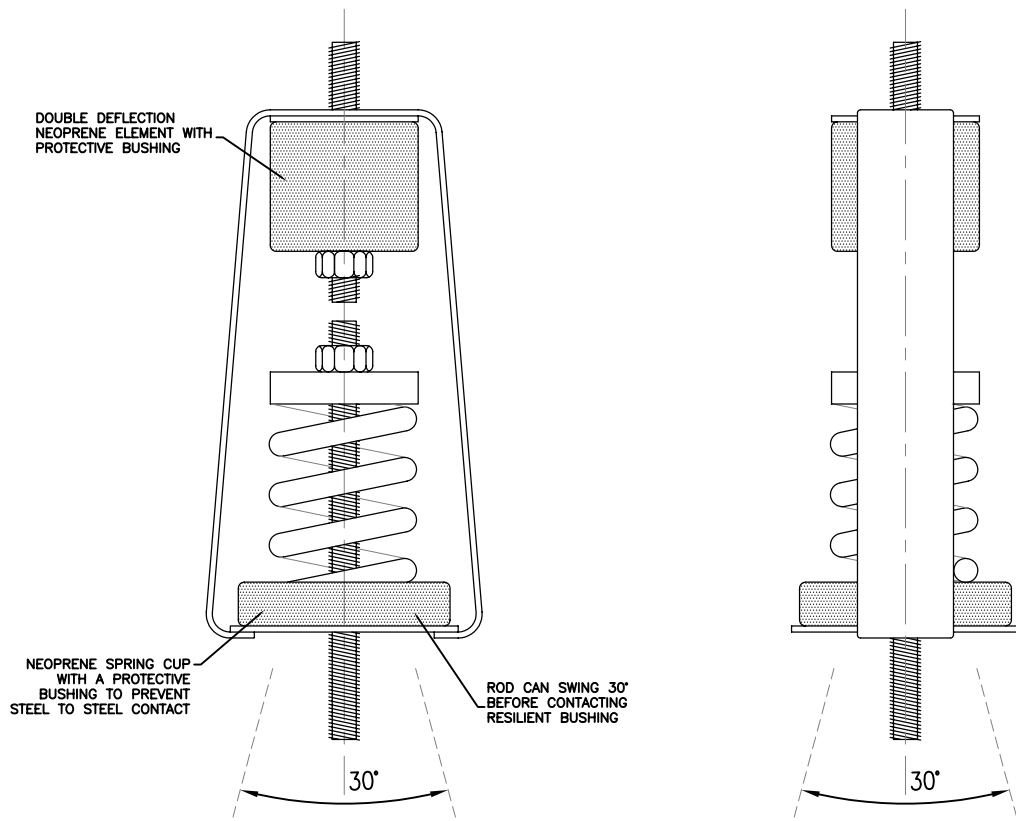
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	GMG/KWC	Checked by	TAP	Date	04JAN07
Title	CONSTRAINED SPRING & NEOPRENE MOUNTS - TYPE CSNM	Project No.	3760	Report No.	7742	Drawing No.	SD5110	Rev.	

filename:  
SD5210

date:  
14AUG96



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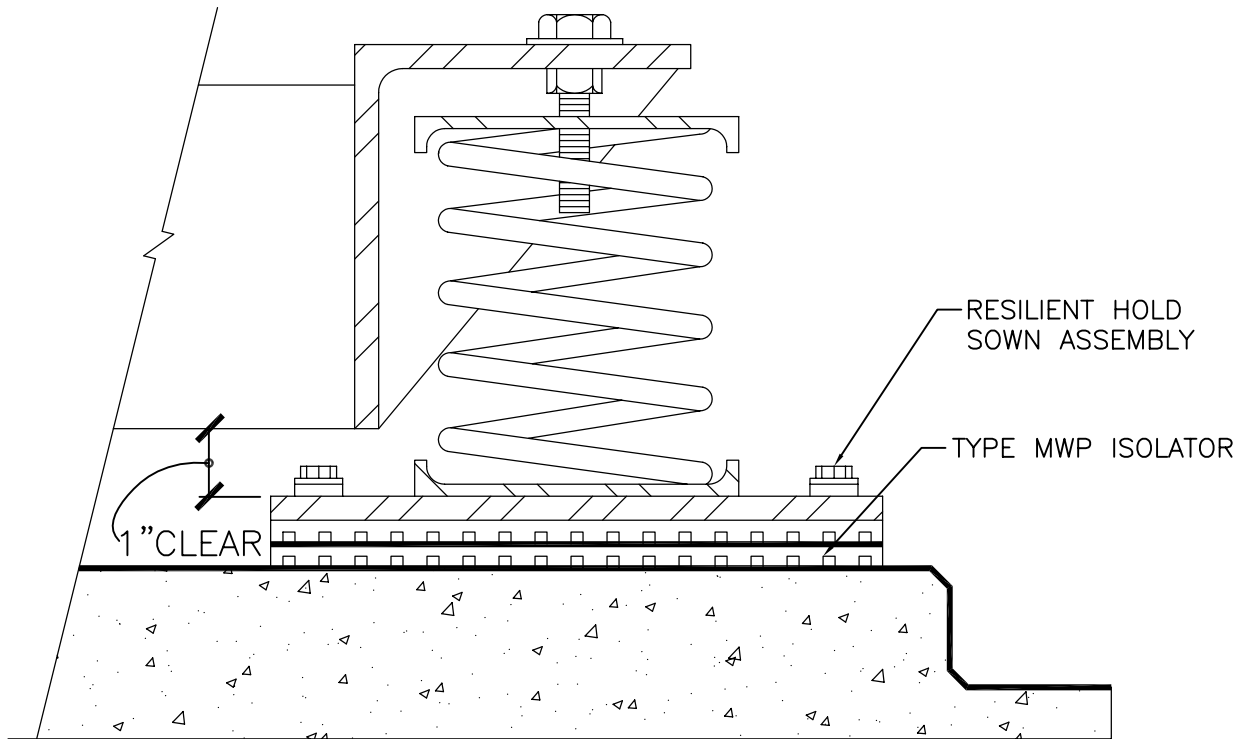
**ARTEC**

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Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	Drawn by	Checked by	Date
		NTS	MH/KWC	TAP	04JAN07
Title	DOUBLE DEFLECTION NEOPRENE & SPRING ISOLATION HANGER - TYPE SPNH	Project No.	Report No.	Drawing No.	Rev.
		3760	7742	SD5210	





NOTES

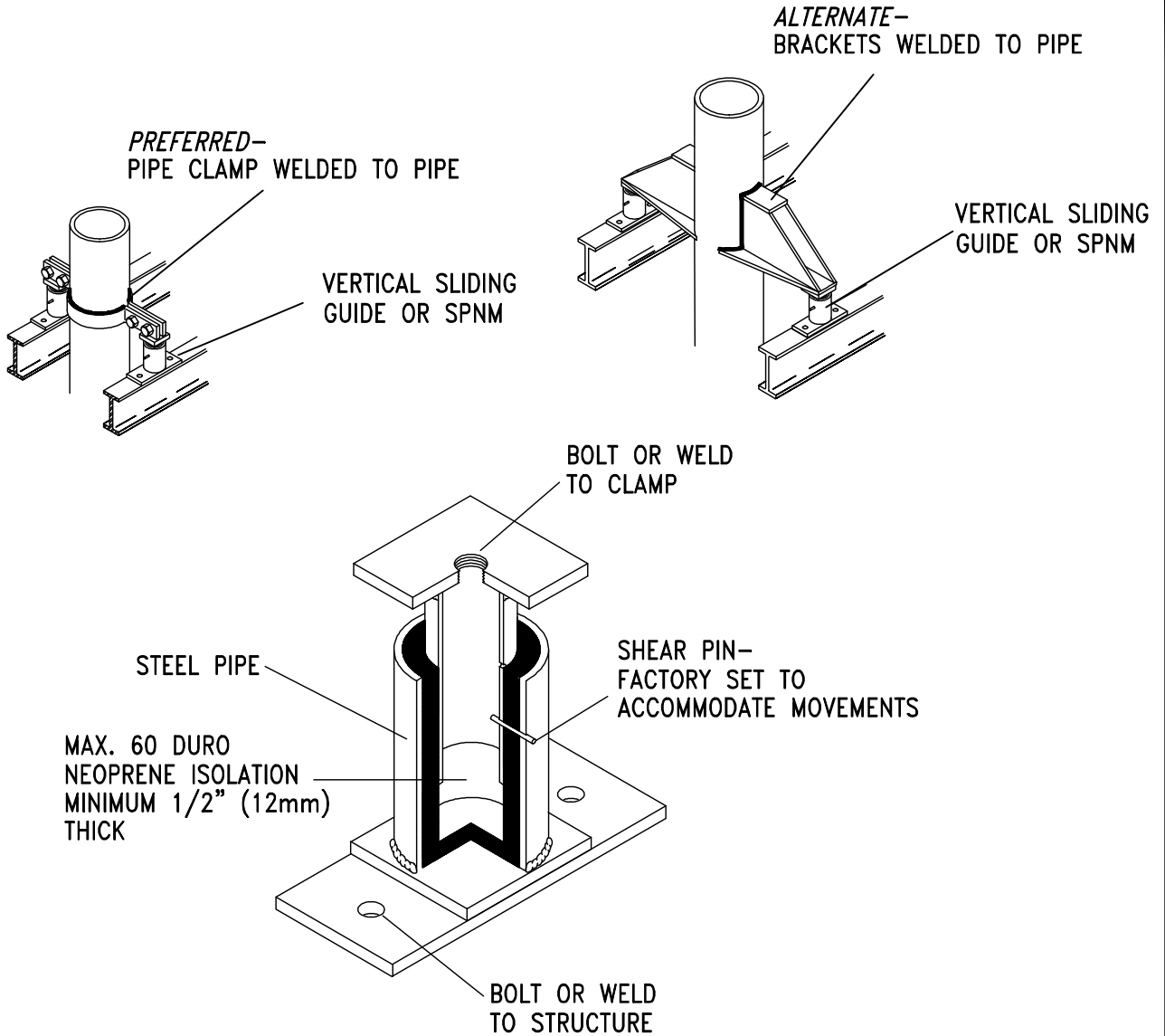
1. MINIMUM STATIC DEFLECTION OF 25mm (1") FOR GRADE LEVEL.
2. MINIMUM STATIC DEFLECTION OF 50mm (2") FOR ABOVE GRADE LEVEL.
3. MINIMUM ADDITIONAL TRAVEL OF SPRING TO SOLID EQUAL TO 50 PERCENT OF SPECIFIED STATIC DEFLECTION.
4. SPRING DIAMETER NOT LESS THAN 80 PERCENT OF THE COMPRESSED HEIGHT OF THE SPRING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

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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/KWC	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	SPRING & NEOPRENE MOUNT (SPNM)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD5310	<b>Rev.</b>	



VERTICAL SLIDING GUIDES

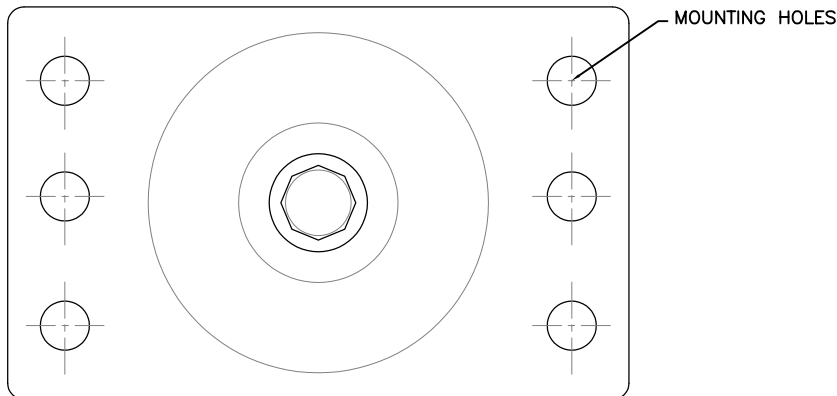
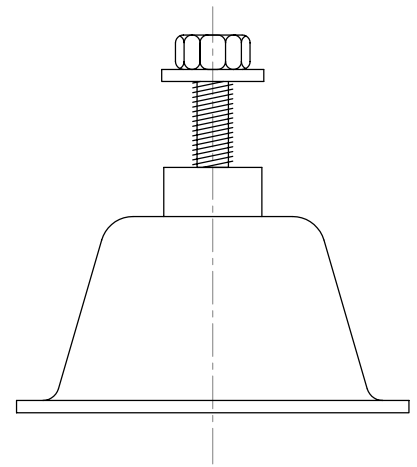
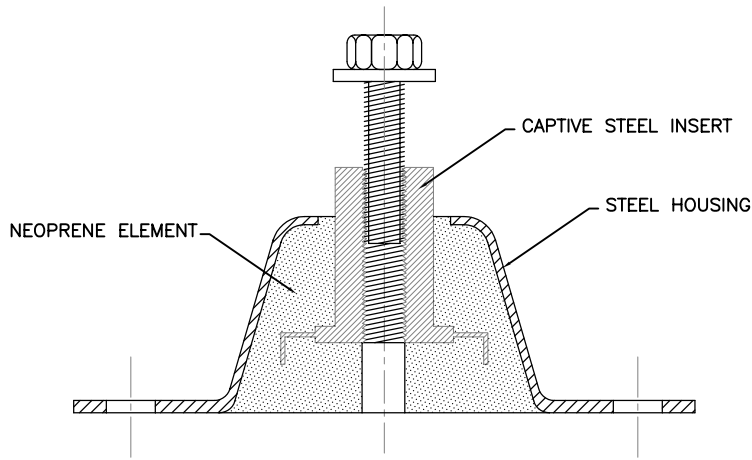
**ARTEC**

DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES  
 114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812  
 TEL: +1(212) 242 0120 FAX: +1(212) 645 8635 www.ArtecConsultants.com

Scale NTS	Drawn by TAP	Date 2008-04-01	Project EAST HARBOUR CCC REYKJAVIK, ICELAND	Drawing No. <b>SD-5320</b>
Project No. 3760	Checked by TAP	Rev.	Title VERTICAL PIPE GUIDES MASON TYPE VSG OR SIMILAR	

filename:  
SD5410

date:  
16AUG96



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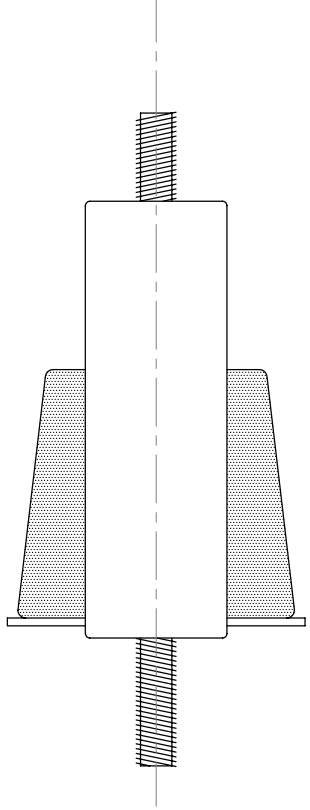
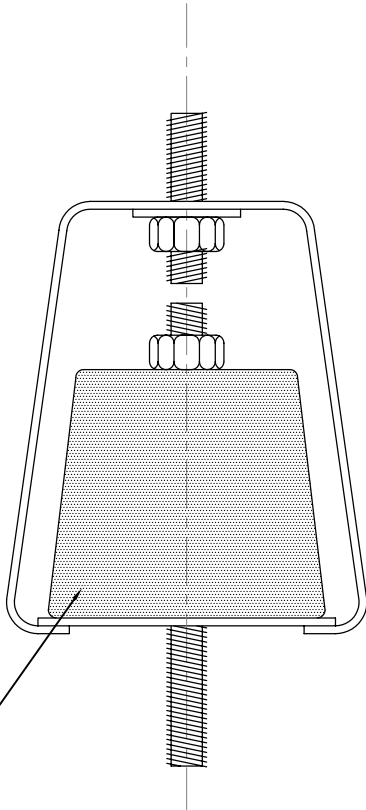
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	MH/KWC	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	NEOPRENE MOUNTING WITH CAPTIVE STEEL INSERTS - TYPE RBA	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD5410	<b>Rev.</b>	

filename:  
SD5510

date:  
15AUG96

DOUBLE DEFLECTION  
NEOPRENE ELEMENT  
WITH PROJECTING  
BRUSHING



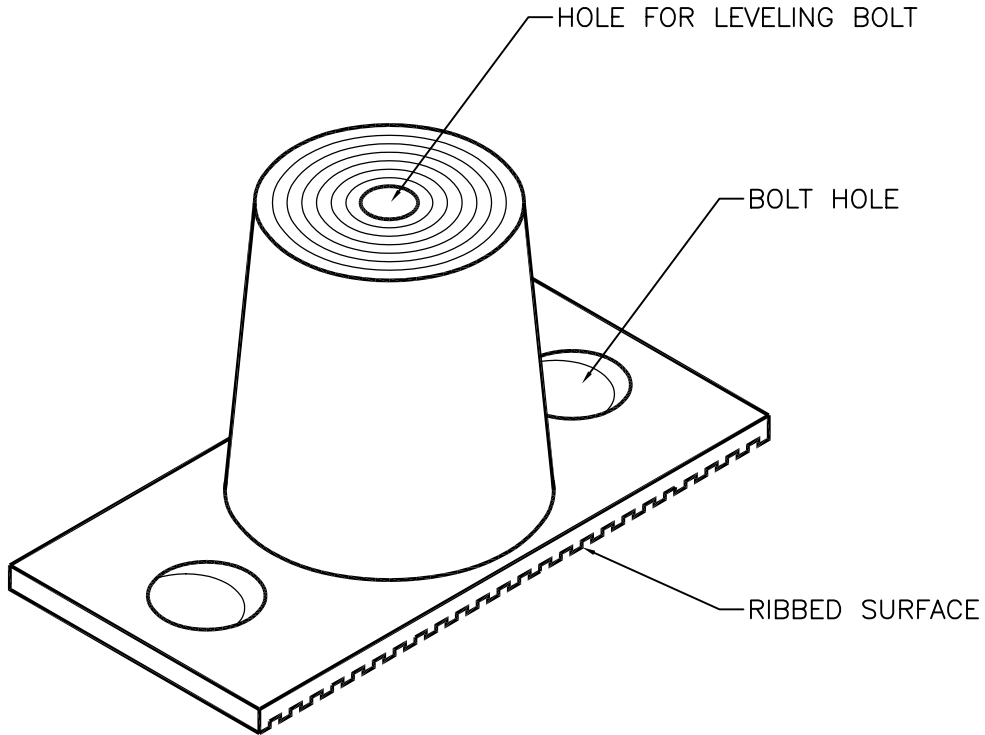
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Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	MH/KWC	Checked by	TAP	Date	04JAN07
Title	DOUBLE DEFLECTION NEOPRENE ISOLATION HANGER - TYPE DDNH	Project No.	3760	Report No.	7742	Drawing No.	SD5510	Rev.	



NOTES

1. 9.5mm (3/8") STATIC DEFLECTION.
2. STRAIN NOT TO EXCEED 10 PERCENT.
3. 50 DUROMETER NEOPRENE UNLESS OTHERWISE SPECIFIED.

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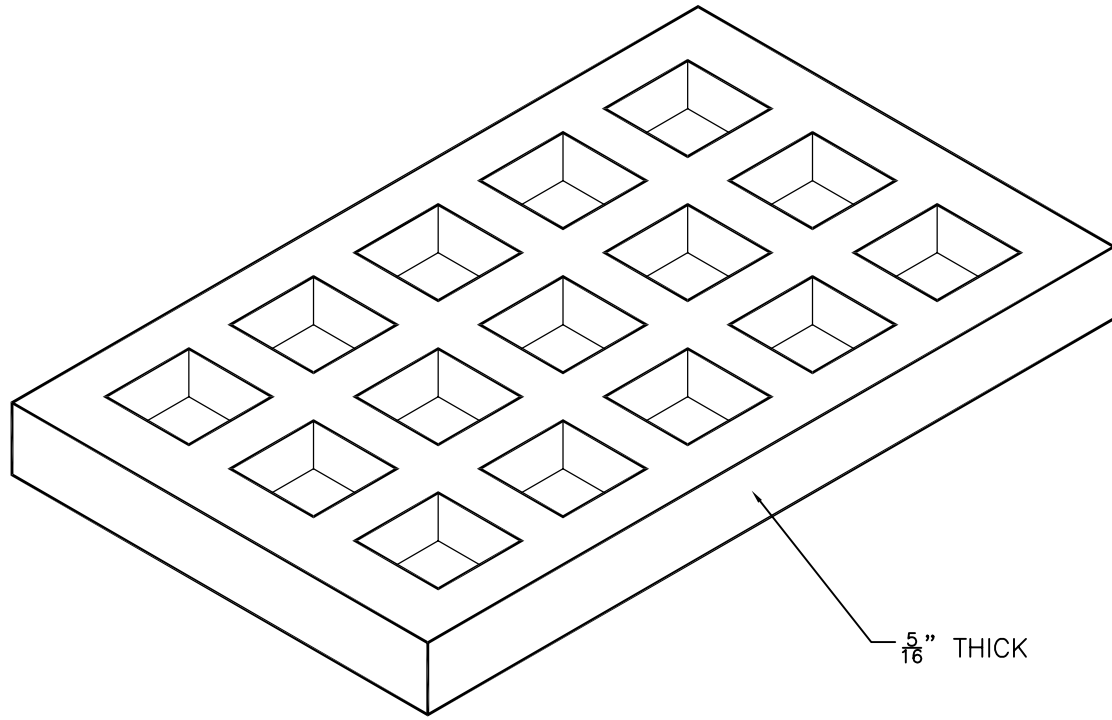
# ARTEC

CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> DOUBLE DEFLECTION NEOPRENE MOUNTS (DDNM)	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD5610	<b>Rev.</b>

filename:  
SD5710  
date:  
01NOV95



NOTE  
LOAD FOR STATIC  
DEFLECTION 0.03"

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# ARTEC

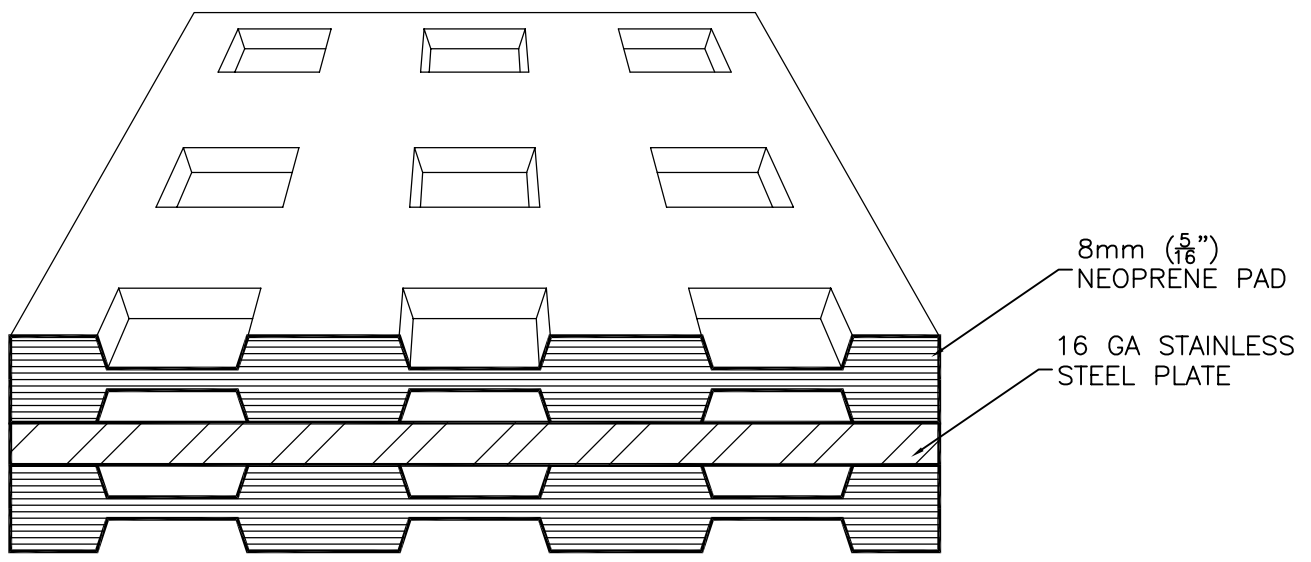
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	GMG/KWC	Checked by	TAP	Date	04JAN07
Title	WAFFLE PAD (WP)	Project No.	3760	Report No.	7742	Drawing No.	SD5710	Rev.	

filename:  
SD5720

date:  
01NOV95



NOTE  
STRAIN NOT TO EXCEED 20 PERCENT

# ARTEC

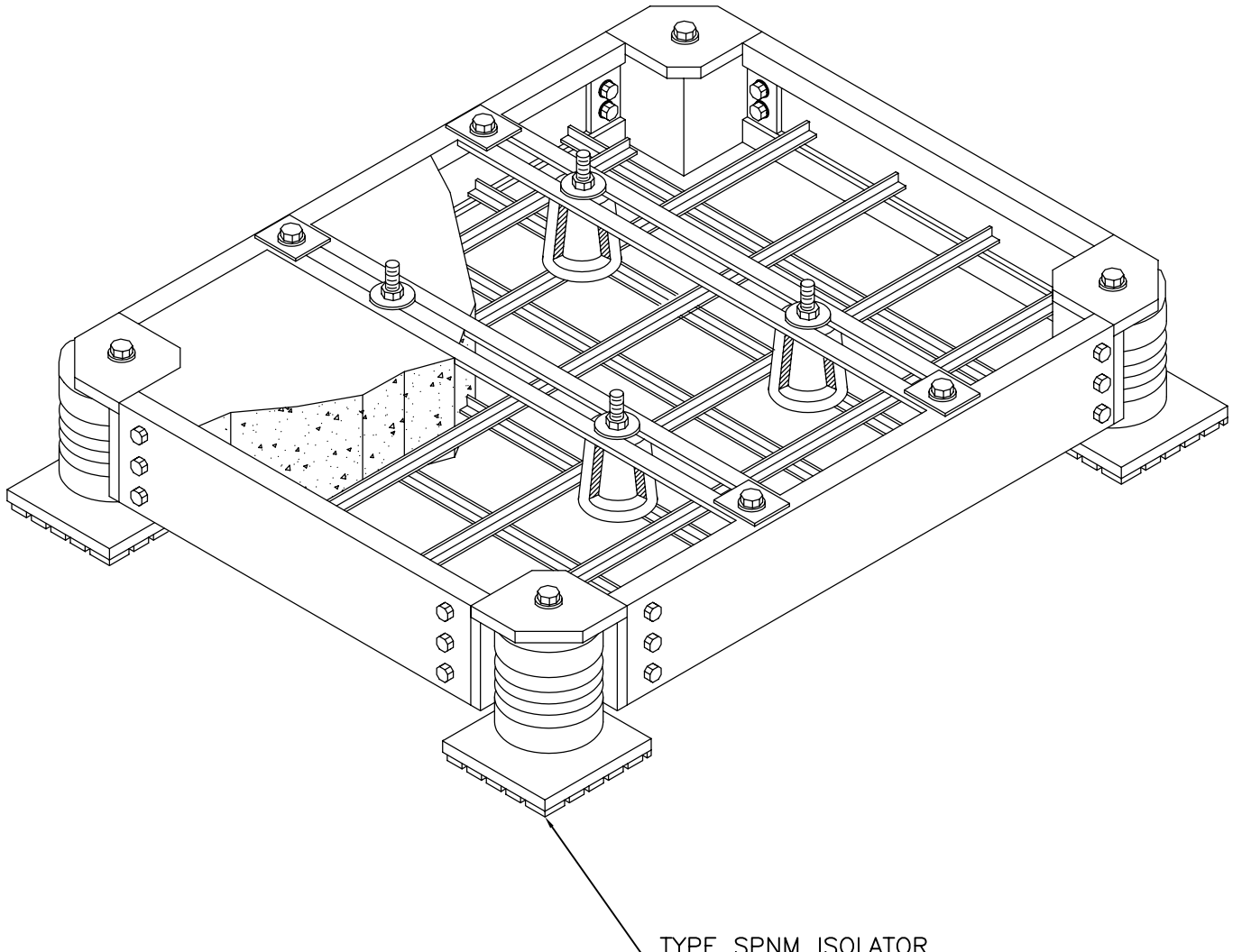
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/KWC	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	METAL & WAFFLE PAD (MWP)	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD5720	<b>Rev.</b>	

filename:  
SD5810

date:  
01NOV95



TYPE SPNM ISOLATOR

# ARTEC

CONSULTANTS INC

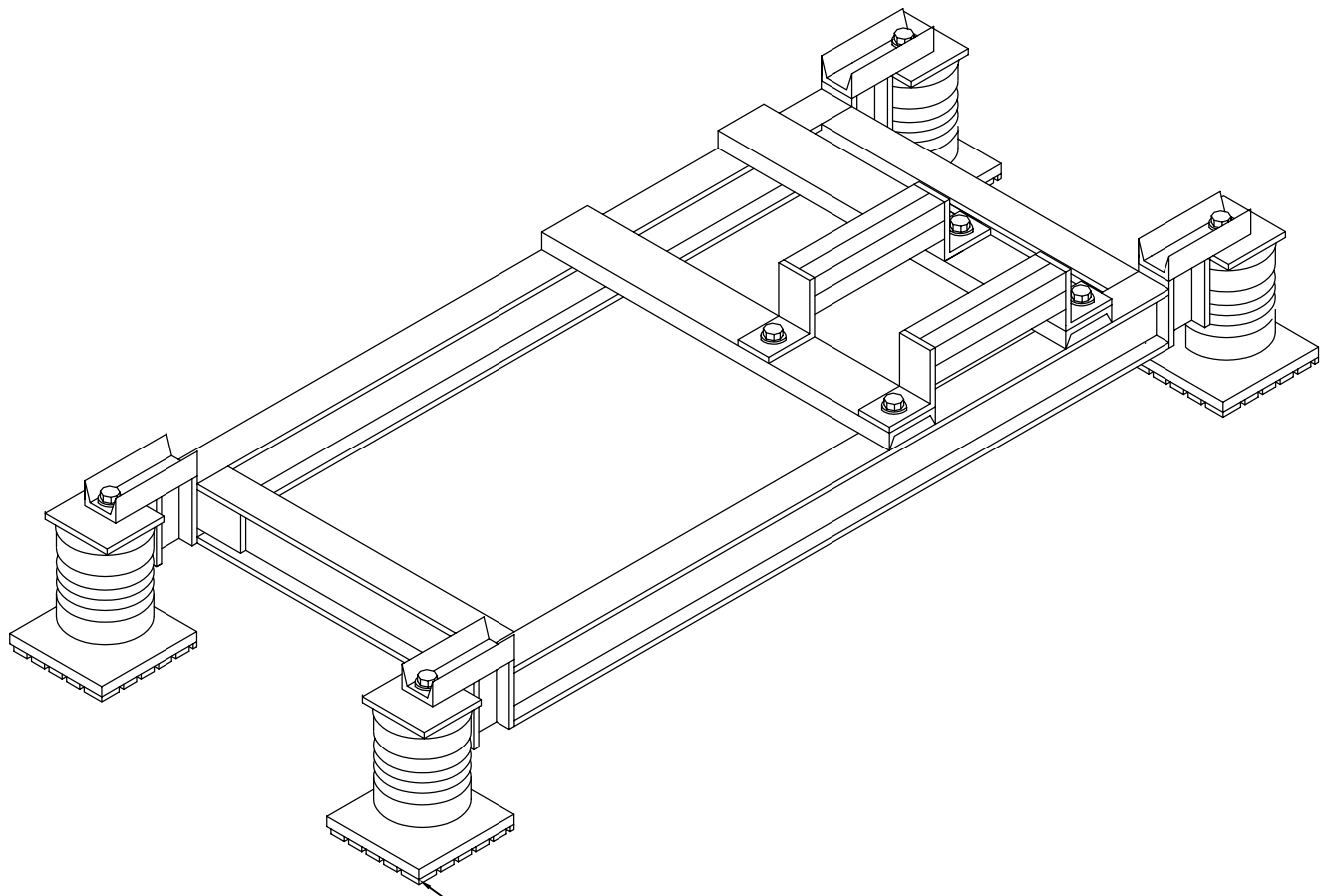
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> EA/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> CONCRETE INERTIA BASE	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD5810	<b>Rev.</b>



filename:  
SD5820

date:  
01NOV95



— TYPE SPNM ISOLATOR

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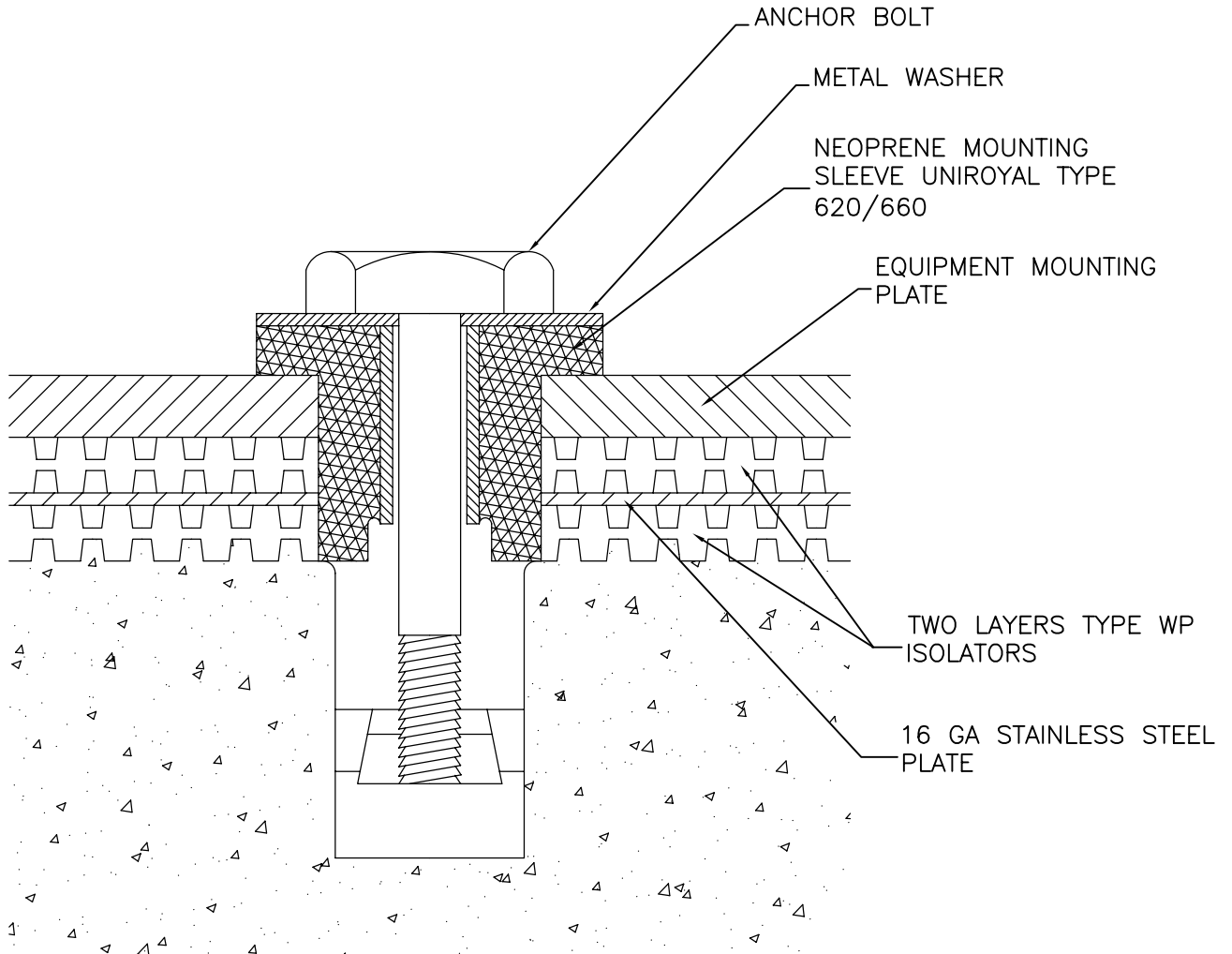
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> STEEL INERTIA BASE	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD5820	<b>Rev.</b>

filename:  
SD5910

date:  
13AUG90

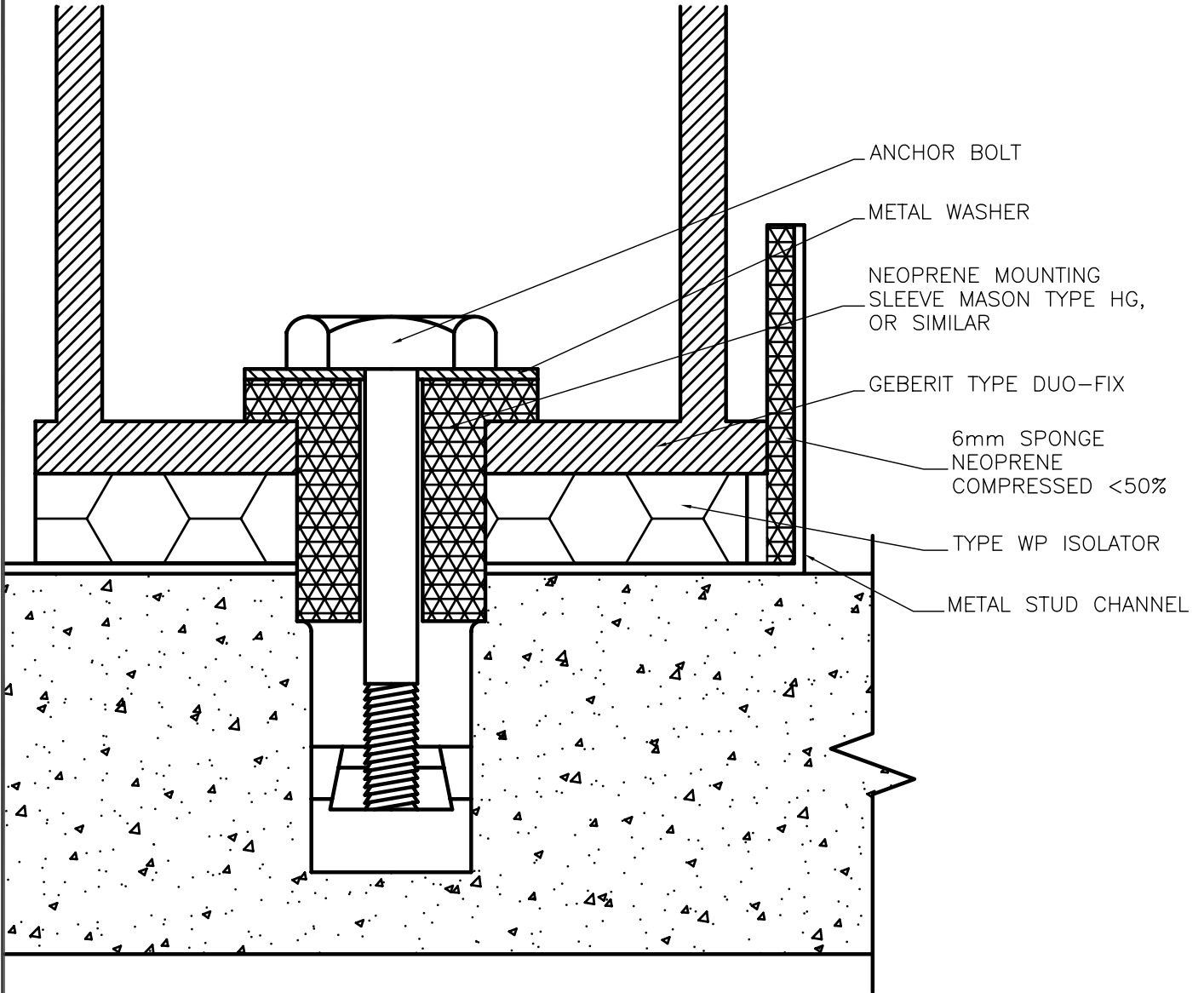


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114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b> EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b> NTS	<b>Drawn by</b> GMG/KWC	<b>Checked by</b> TAP	<b>Date</b> 04JAN07
<b>Title</b> RESILIENT HOLD-DOWN ASSEMBLY	<b>Project No.</b> 3760	<b>Report No.</b> 7742	<b>Drawing No.</b> SD5910	<b>Rev.</b>



# ARTEC

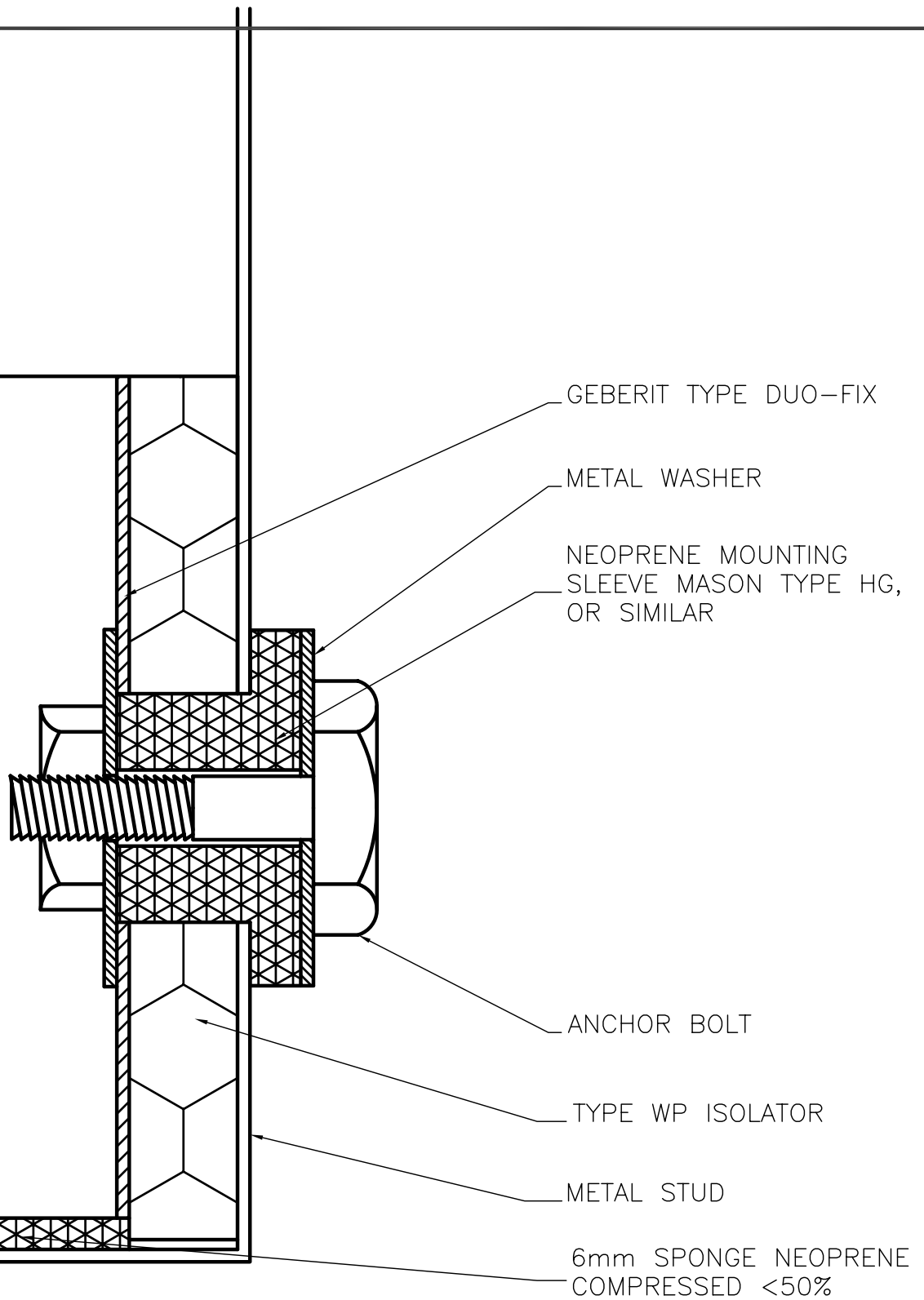
DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES

114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812

TEL: +1(212) 242 0120 FAX: +1(212) 645 8635 [www.ArtecConsultants.com](http://www.ArtecConsultants.com)

Scale NTS	Drawn by JJH	Date 29 NOV 07	Project EAST HARBOUR PROJECT CCC REYKJAVÍK, ICELAND	Drawing No.
Project No. 3760	Checked by TAP	Rev.	Title FLOOR MOUNT DETAIL FOR GEBERIT TYPE DUO-FIX	SD-5911

filename:  
SD5912.dwg



# ARTEC

DESIGN AND PLANNING SERVICES FOR PERFORMING ARTS FACILITIES

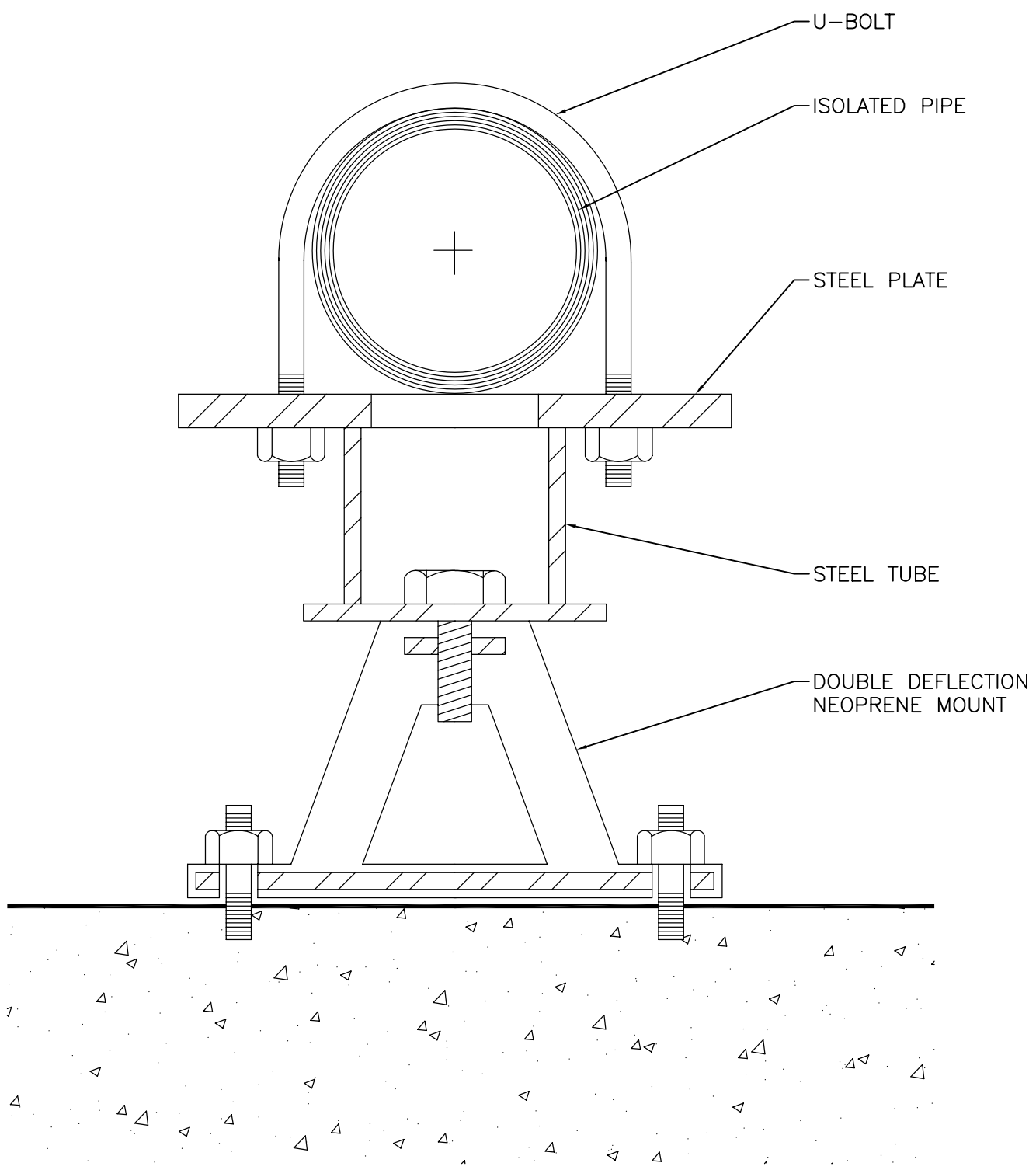
114 WEST 26<sup>TH</sup> STREET 12<sup>TH</sup> FLOOR NEW YORK NEW YORK USA 10001-6812

TEL: +1(212) 242 0120 FAX: +1(212) 645 8635 [www.ArtecConsultants.com](http://www.ArtecConsultants.com)

Scale NTS	Drawn by JJH	Date 29 NOV 07	Project EAST HARBOUR PROJECT CCC REYKJAVÍK, ICELAND	Drawing No.
Project No. 3760	Checked by TAP	Rev.	Title SIDE MOUNT DETAIL FOR GEBERIT TYPE DUO-FIX	<b>SD-5912</b>

filename:  
SD5920

date:  
01NOV95



# ARTEC

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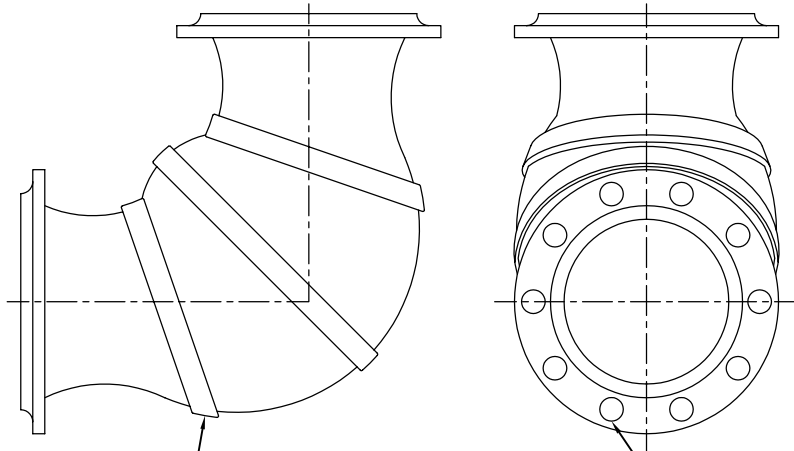
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	HYDRUALIC PIPE ISOLATION ASSEMBLY	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD5920	<b>Rev.</b>	

filename:  
SD5930

date:  
15AUG96

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CONSTRUCTION



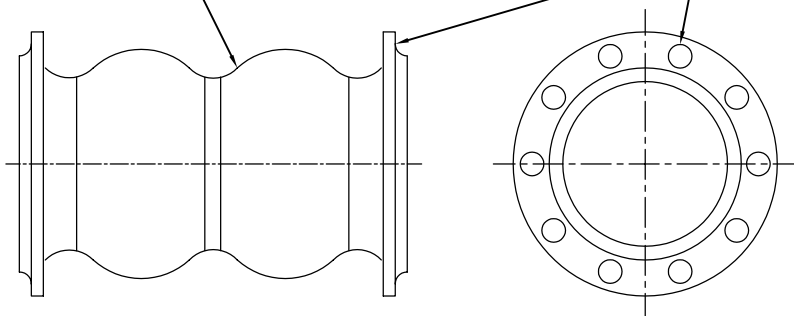
NEOPRENE AND NYLON

GALVANIZED FLANGES

ELBOW CONNECTOR

NEOPRENE AND NYLON

GALVANIZED FLANGES



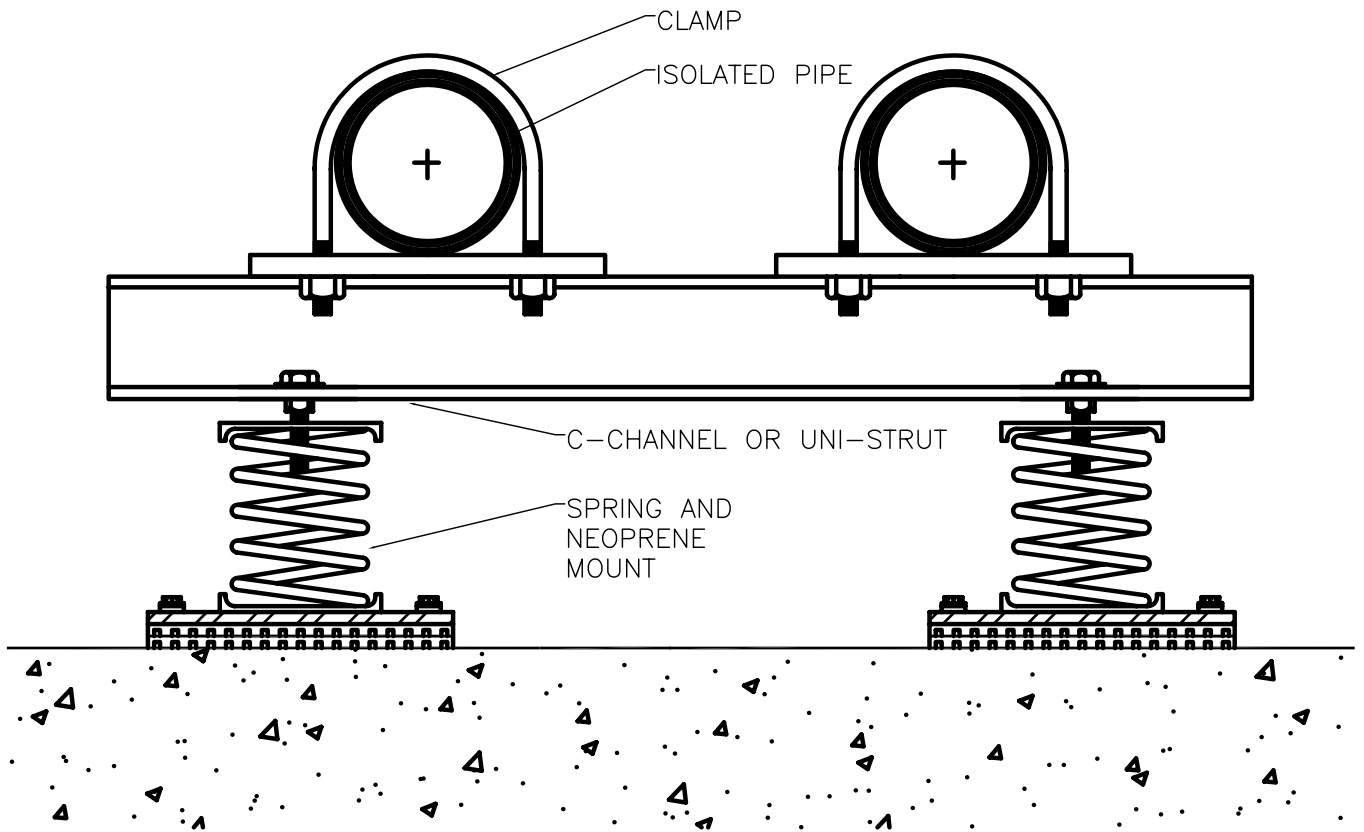
TWIN SPHERE CONNECTOR

**ARTEC**

CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	MH/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	PIPE FLEXIBLE CONNECTORS	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD5930	<b>Rev.</b>	



# ARTEC

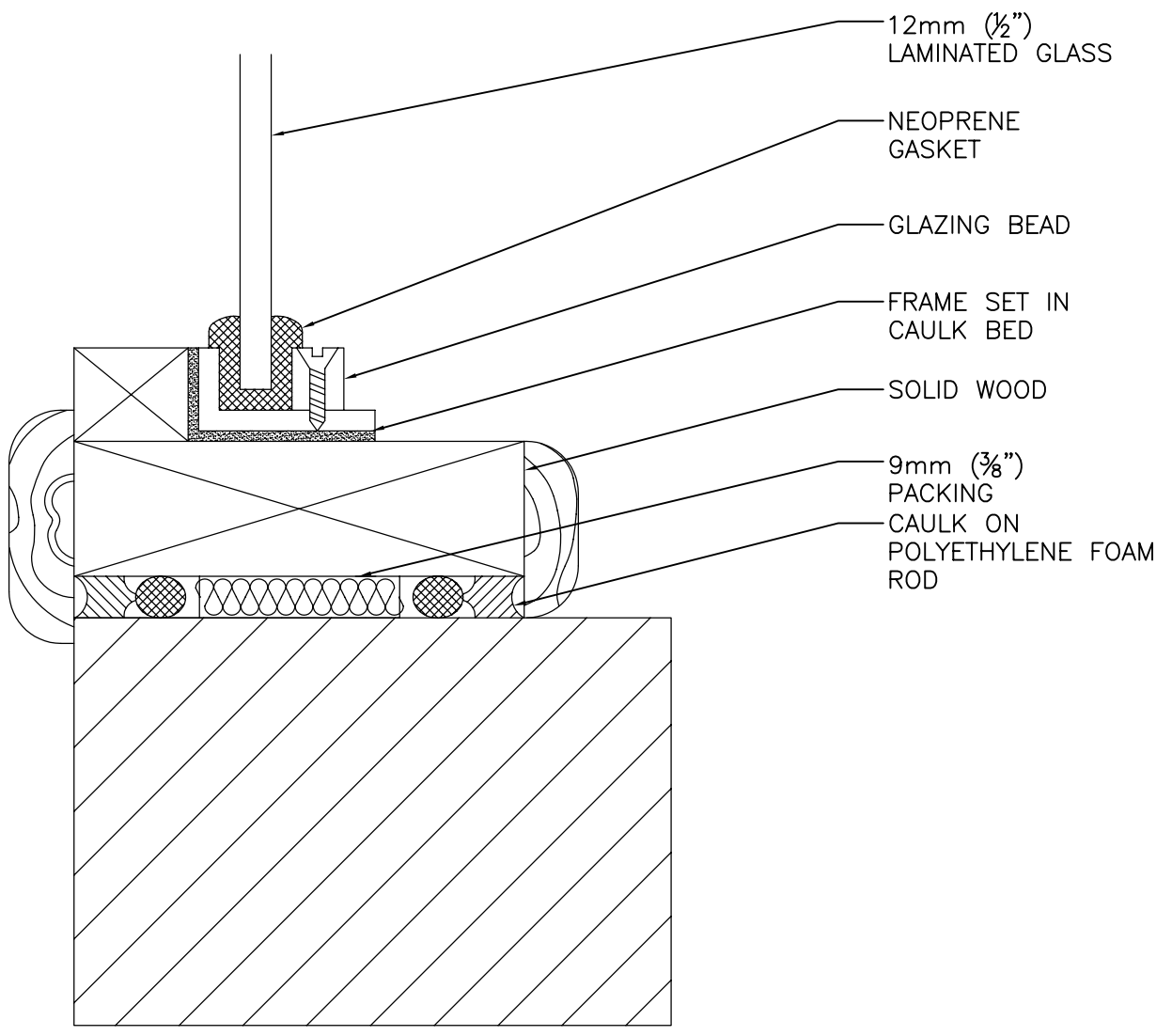
CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	Drawn by	Checked by	Date
		NTS	TAP	TAP	29NOV07
Title	MULTIPLE PIPE ISOLATION ASSEMBLY	Project No.	Report No.	Drawing No.	Rev.
		3760	7742	SD5940	

filename:  
SD7310

date:  
01NOV95



NOTES:  
NEOPRENE GASKET PROVIDES DAMPING TO  
GLASS.  
  
SUBFRAME MUST BE SEALED AIRTIGHT TO  
STRUCTURAL OPENING.

# ARTEC

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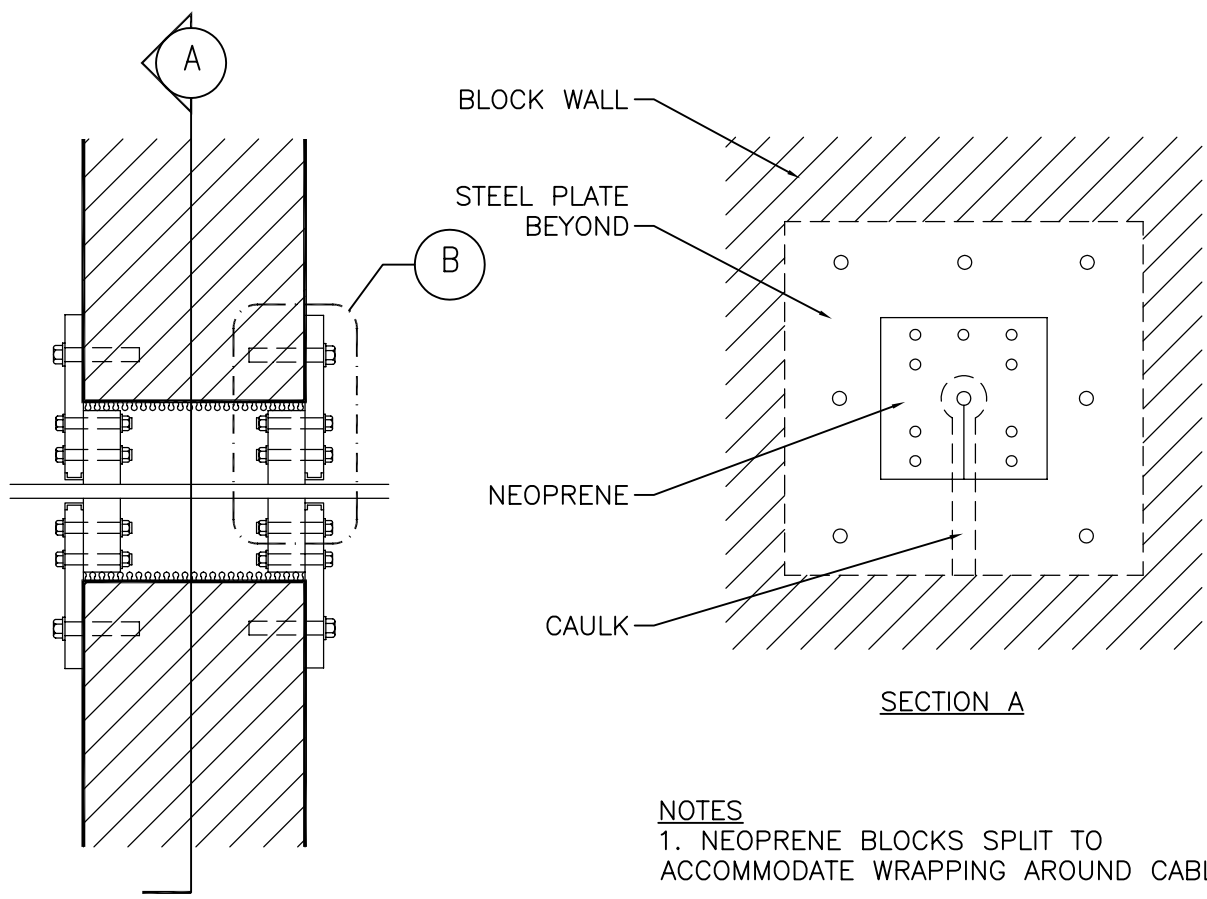
114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	ACOUSTICALLY SEALED GLAZING DETAIL	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD7310	<b>Rev.</b>	



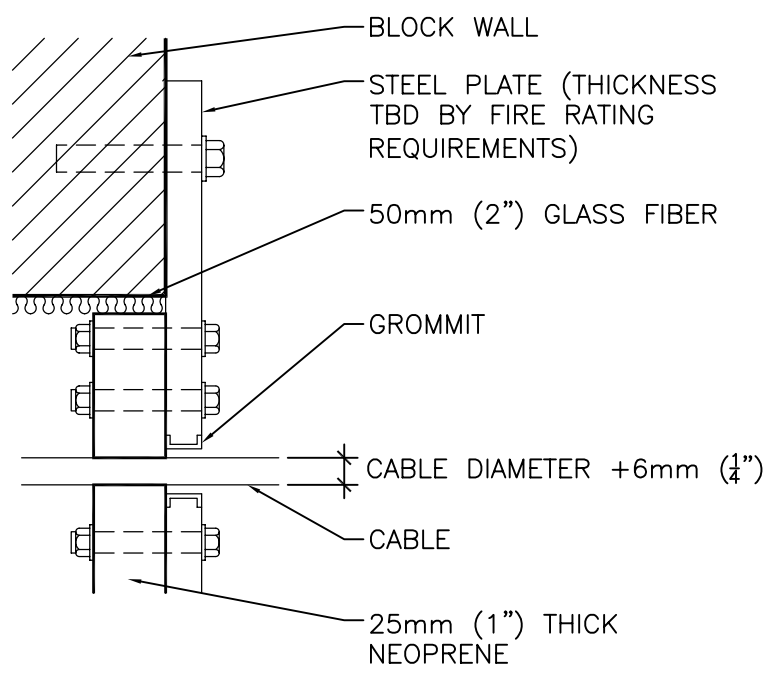
filename:  
SD8210

date:  
01NOV95



SECTION A

- NOTES
1. NEOPRENE BLOCKS SPLIT TO ACCOMMODATE WRAPPING AROUND CABLE.
  2. STEEL PLATES SLOTTED FOR SAME REASON; SLOTS TO BE CAULKED



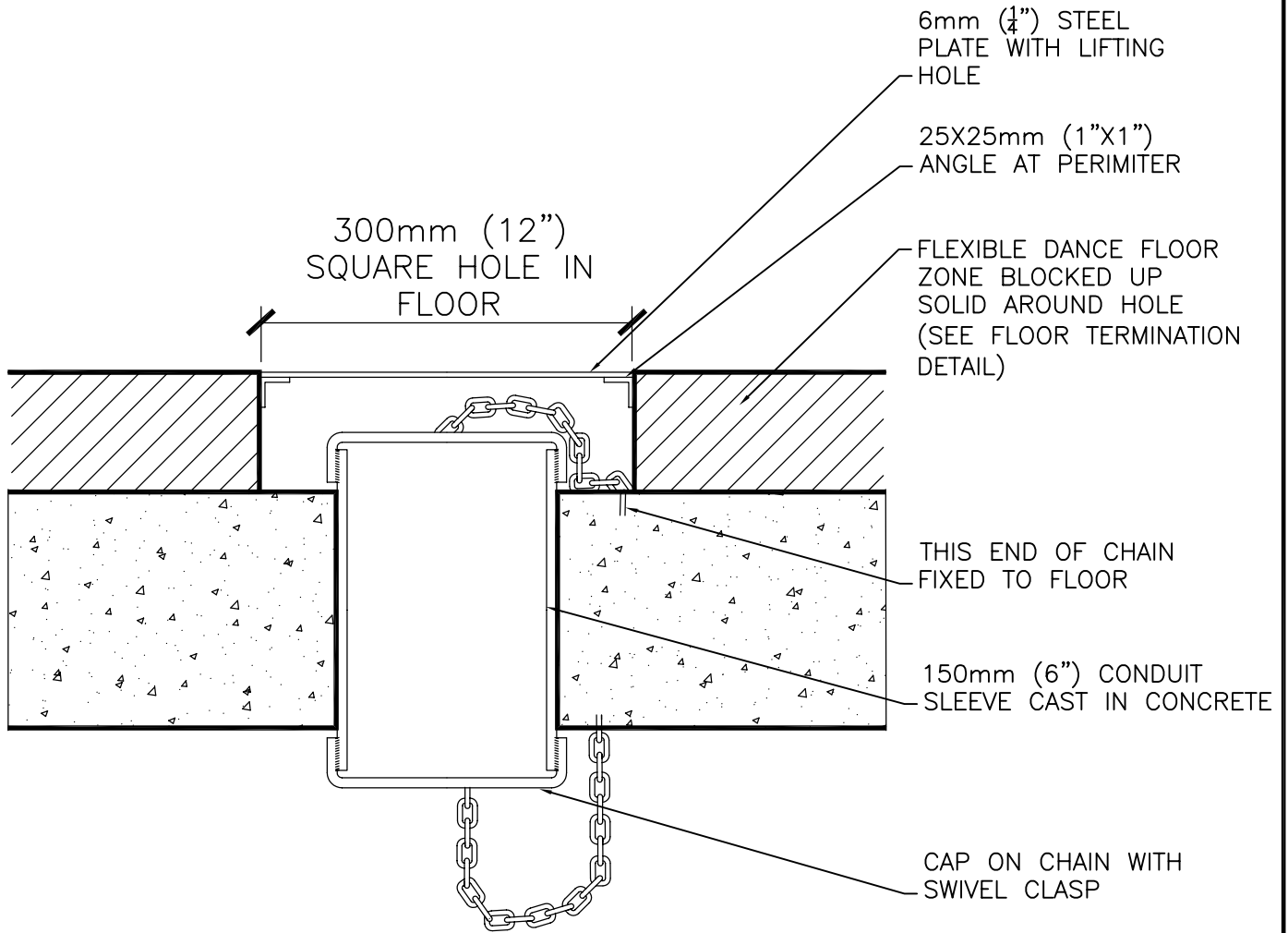
DETAIL B

**ARTEC**

CONSULTANTS INC

114 W 26TH STREET NEW YORK, NY 10001 (212) 242-0120

<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/TRP	<b>Checked by</b>	TAP	<b>Date</b>	05JAN07
<b>Title</b>	ACOUSTIC PRINCIPLE FOR RIGGING CABLE PASS-THROUGH FOR NOISE CRITICAL WALL	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD8210	<b>Rev.</b>	



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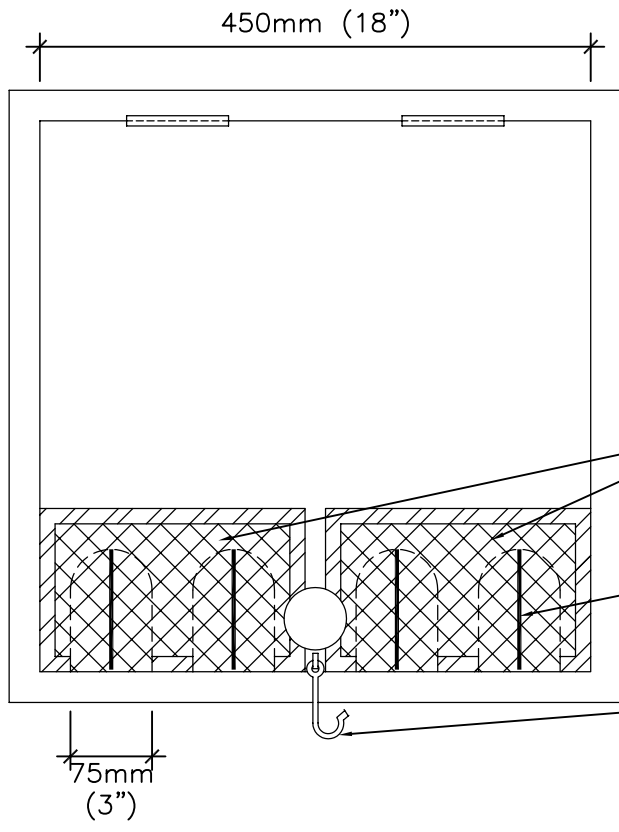
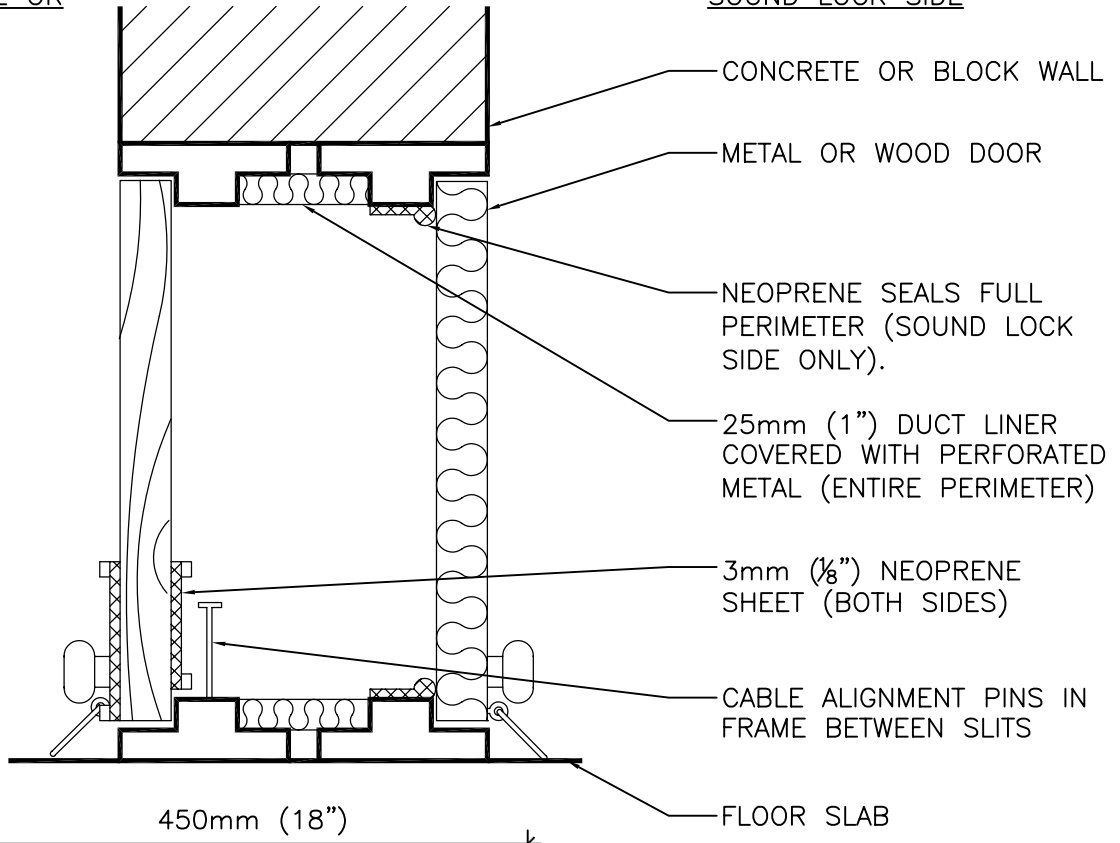
<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	GMG/KWC	<b>Checked by</b>	TAP	<b>Date</b>	05JAN07
<b>Title</b>	ACOUSTIC PRINCIPLE FOR CAPPED SLAB PENETRATION FOR BROADCAST CABLES	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD8220	<b>Rev.</b>	

filename:  
SD8230

date:  
01NOV95

THEATER SIDE OR  
OUTSIDE

SOUND LOCK SIDE



**NOTE:**  
SOUND LOCK SIDE DOOR TO BE HM 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 ( $\frac{1}{8}$ " ) NEOPRENE SHEETS FASTENED TO DOOR AT PERMETER WITH CEMENT AND ALUMINUM TRIM  
 100mm (4") HIGH SLITS IN NEOPRENE  
 HOLD OPEN DEVICE (BOTH DOORS)

# ARTEC

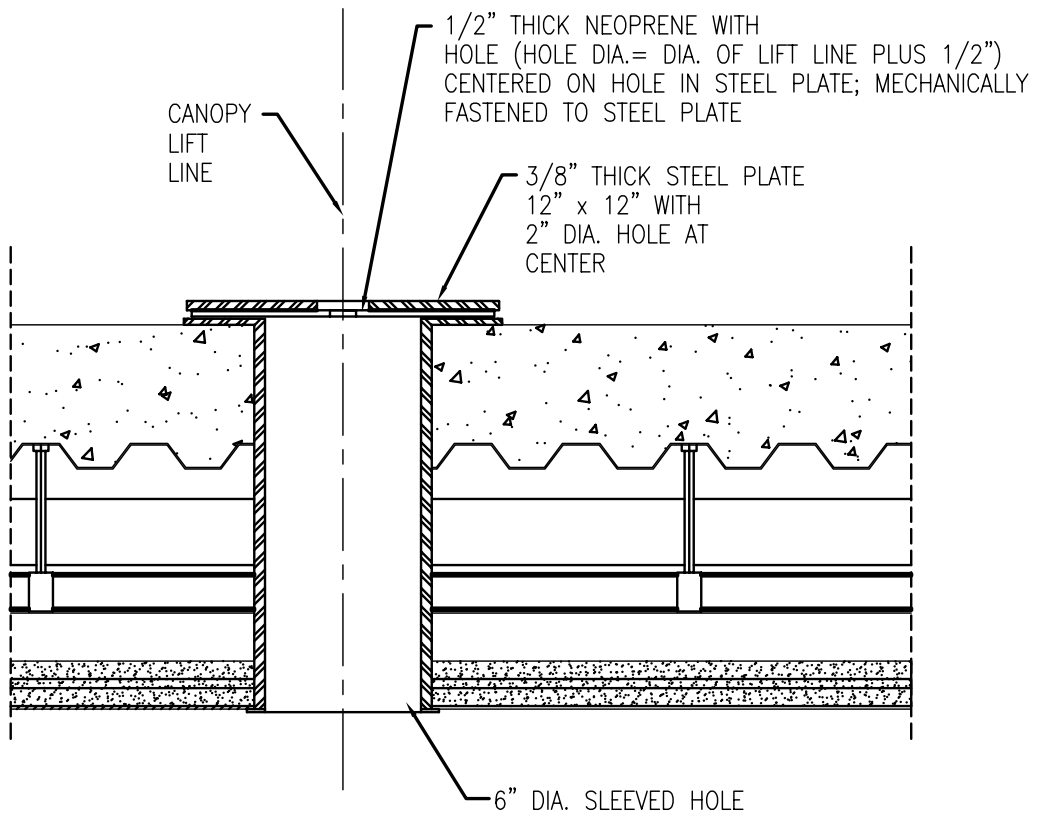
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<b>Project</b>	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	<b>Scale</b>	NTS	<b>Drawn by</b>	EPA/TRP	<b>Checked by</b>	TAP	<b>Date</b>	04JAN07
<b>Title</b>	ACOUSTIC PRINCIPLE FOR DOUBLE DOOR CLOSURE OF BROADCAST CABLE ROUTE	<b>Project No.</b>	3760	<b>Report No.</b>	7742	<b>Drawing No.</b>	SD8230	<b>Rev.</b>	

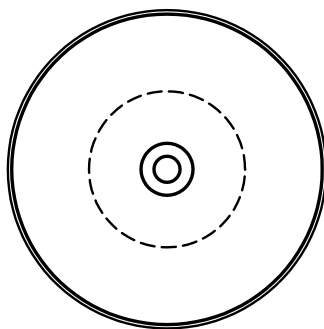
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TE138  
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21JUN99

**ATTIC**



**AUDIENCE CHAMBER**

SECTION



PLAN VIEW

ACOUSTIC CAPS  
NOT ATTACHED TO FLOOR

**ARTEC**

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Project	EAST HARBOUR PROJECT REYKJAVIK, ICELAND	Scale	NTS	Drawn by	MH	Checked by	TAP	Date	23APR01
Title	ACOUSTIC CAPS FOR CANOPY LIFT LINE SLEEVED HOLES	Project No.	3760	Drawing No.	SD8240		Rev.		

## Acoustic Isolation Details Index

The following acoustic isolation details have been adopted for the East Harbour CCC project in Reykjavik, Iceland. These details are separated below into each discipline that relates to their execution. However, all contractors and subcontractors are responsible to follow all the acoustic isolation details as they pertain their work, even if not explicitly included in their section below.

All installations in these details must be approved by the project engineers and coordinated with their engineering work. **Bold** items indicate details that have been issued as addenda following the original Artec report, Acoustic Isolation Details, dated January 5, 2007.

### Ventilation

- 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
- SD3120 Fan Isolation (Suspended)
- SD3180 Fan Coil or Downflow Units**
- SD3210 Gypsum Board Lagging of Ducts
- SD3220 Gypsum Board Lagging of Ducts Full Perimeter
- 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)
- 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

### Air Handling Units

- 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

#### Piping

SD2210 Wall Penetration for Pipe or Single Conduit  
**SD2310 Multiple Conduit/Piping penetration**  
SD2350 Wall Penetration for Pipe  
SD3160 Submersible Pump Isolation  
SD3170 Water Closet Isolation  
**SD3171 Water Closet Isolation – Geberit**  
**SD3172 Front Elevation Detail – Geberit**  
**SD3180 Fan Coil or Downflow Units**  
SD3210 Gypsum Board Lagging of Ducts  
SD3220 Gypsum Board Lagging of Ducts Full Perimeter  
SD3410 Acoustic Isolation Lagging of Pipes  
SD5110 Constrained Spring & Neoprene Mounts – Type CSNM  
SD5210 Double Deflection Neoprene & Spring Isolation Hanger – Type SPNH  
SD5310 Spring & Neoprene Mount (SPNM)  
**SD5320 Vertical pipe guides**  
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  
**SD5911 Floor Mount Detail – Geberit**  
**SD5912 Side Mount Detail - Geberit**  
SD5920 Hydraulic Pipe Isolation Assembly  
SD5930 Pipe Flexible Connectors  
**SD5940 Multiple pipe Isolation Assembly**

#### Electrical

SD2210 Wall Penetration for Pipe or Single Conduit  
SD2220 Pipe/Conduit Penetration Through Single/Double Sound Isolation Walls  
**SD2310 Multiple Conduit/Piping penetration**  
SD2320 Wireway Penetrations through Sound Isolation Walls for Conduits  
SD2330 Wireway Penetrations through Sound Isolating Walls for Conduits  
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  
SD5110 Constrained Spring & Neoprene Mounts – Type CSNM  
SD5210 Double Deflection Neoprene & Spring Isolation Hanger – Type SPNH  
SD5310 Spring & Neoprene Mount (SPNM)  
**SD5320 Vertical pipe guides**

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

Box-in-box and Acoustic Joints and Noise-Critical Structures

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)  
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  
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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  
SD7310 Acoustically Sealed Glazing Detail  
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

END OF DOCUMENT