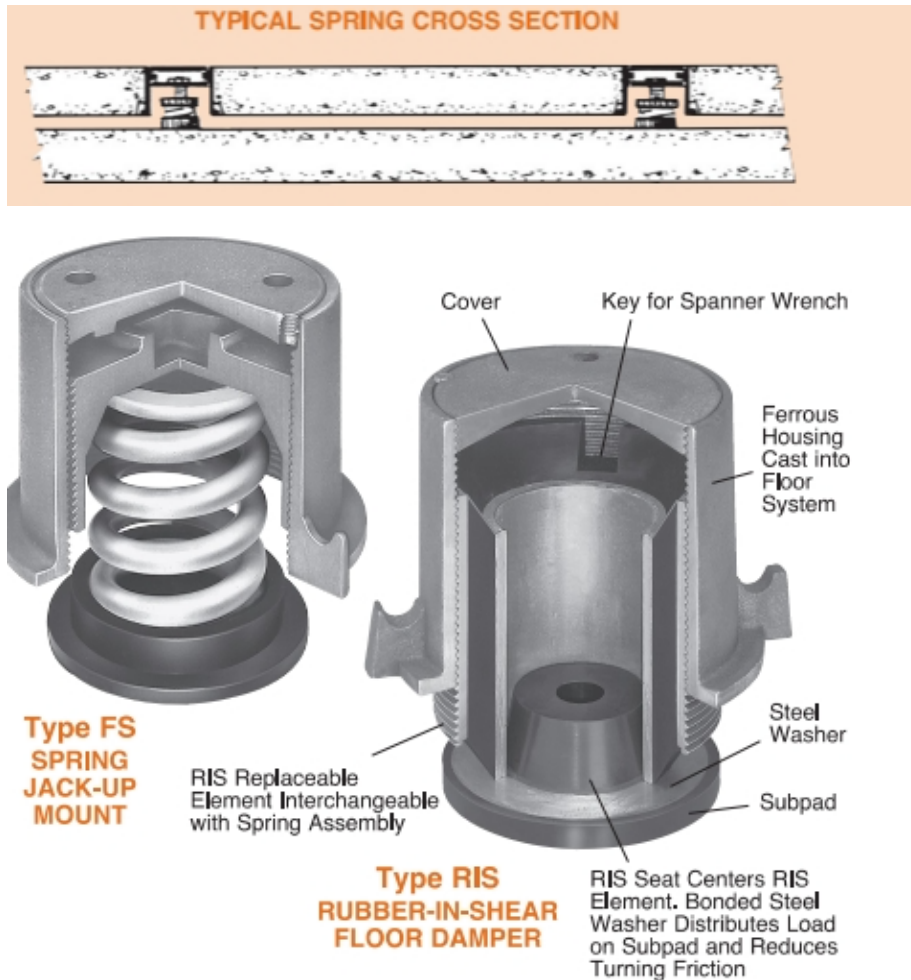


TV STUDIO , THEATER SPRING JACK UP

PART 1 – GENERAL



1.01 Description

1. Scope of Work

1. Isolate floating floors from the building structure by means of jack-up spring isolators and perimeter isolation in each of the _____ rooms as shown on the drawings. (Architect to fill in name of room.) If sound barrier walls are used, add the following:
2. Build sound barrier walls on the floating floors.

2. Substitution of Materials

1. Substitute materials shall meet or exceed the "quality" of the products which are listed in these Specifications. Submit samples for consideration on this project.

1.02 Design

1. Intent

1. The floating floor system shall consist of a 4" (100mm) thick concrete slab isolated from and supported 2" (50mm) above the structural slab by resilient spring isolators within cast iron housings designed to jack

up the floor after pouring on the sub-floor.

If sound barrier walls are used, add the following:

Sound barrier walls consisting of 6"(150mm) filled concrete block (Barrier wall construction may be changed by the architect when writing specification) shall rest on the floating floor with a 3 1/2"(90mm) air gap to the structural walls. (3"(90mm) may be reduced to 2"(50mm) if no sway braces are needed.)

2. The floating floor slab shall be isolated from adjoining walls and curbs by means of perimeter isolation.
3. Any floor drains, piping, conduit and duct penetrations must not short circuit the isolation system.
4. In seismic zones the floating floor shall be restrained horizontally by curbs or walls designed to withstand the horizontal seismic forces. Solid bridge bearing LDS pads shall be interspersed between perimeter isolation to withstand the seismic forces with a maximum deflection of 0.2"(5mm). When perimeter cannot be used for seismic constraint, intersperse horizontal restraints within floor system.

2. Performance Requirements

1. All spring isolators shall have the minimum specified deflection.

3. Floor System Construction Procedure

1. The setting of all isolation materials and raising of the floor shall be performed by or under the supervision of the isolation manufacturer.
2. Set and waterproof any drains and lower pipe seals in keeping with waterproofing specifications.
3. Cement perimeter isolation around all walls, columns, curbs, etc.
 1. In seismic zones intersperse the perimeter isolation with bridge bearing quality LDS pads the thickness of the perimeter isolation.
4. Cover entire floor area with 6 mil (0.15mm) polyethylene sheeting and carry sheeting up perimeter isolation.
5. Place spring isolator castings on a maximum of 54"(1370mm) centers in the general areas in strict accordance with the approved drawings prepared by the isolation manufacturer. Additional reinforcement such as in wall locations must be detailed on isolation manufacturer's drawings when required.

If sound barrier walls are used, add the following:

Perimeter isolators shall be selected to support the wall weight in addition to the perimeter of the floating floor.

6. Place reinforcing as shown on the drawings and pour floor monolithically.
7. Raise floor 2"(50mm) by means of the isolator threaded sleeves and replace covers.
8. Caulk perimeter isolation in all locations.

If sound barrier walls are used, add the following:
9. Construct block walls on the floating floor being careful that mortar does not drop behind the walls. Place 2"(50mm) fiberglass bats against the structural wall as a precaution. Readjust perimeter isolators as required to compensate for wall weight as the wall is built. Provide

sway braces and isolated angle iron wall braces at the top of the walls.
Caulk angle iron braces.

4. Submittals

1. Detailed product drawings including Load/Deflection curves of all isolators.
2. A drawing or drawings showing:
 1. Dead, live and concentrated loads.
 2. Isolator sizes, deflections and locations.
If sound barrier walls are used, add the following to b:
Wall sway brace and isolated angle iron brace locations.
 3. Any drain and penetration locations.
 4. Size, type, elevation and spacing of concrete reinforcement.
 5. Caulking details.
 6. Floating floor and wall construction procedure.

1.03 Quality Assurance

1. Floating floor system components shall be designed and fabricated by a manufacturer with at least ten years experience in one hundred similar installations.
2. The floating floor isolation materials shall be installed and the floor raised by or under the supervision of the isolator manufacturer.

1.04 Site Conditions

1. If site conditions are unsatisfactory or raise questions about the installation of the floating floor, the work will not proceed until the condition has been corrected in a manner acceptable to the isolation manufacturer. The sub-floor must have the same pitch as the top of the floating floor or special provisions made for isolator housings of different height.

1.05 Sequencing and Scheduling

Coordinate work with other trades and coordinate scheduling with the construction supervisor to minimize delays.

PART 2- PRODUCTS

2.01 Isolators

1. Casting or weldments consisting of an internally threaded outer housing complete with lugs to support the reinforcing system. The inner inverted cup shaped housing shall be externally threaded. The springs are compressed and the floor lifted by turns of the internal housing. Springs shall be seated in neoprene cups and housings shall have removable cover plates. Spring diameters shall be no less than 0.8 of the compressed height of the spring at rated load. Springs shall have a minimum additional travel to solid equal to 50% of the rated deflection. Spring deflections shall be a minimum of 0.75"(20mm). (Note to architect: Deflections may be changed as required.) Isolators shall be Mason Industries Type FS.
If sound barrier walls are used, add the following:
2. Wall Sway Braces: Double acting LDS sway braces with a fail safe feature in three planes. Braces shall be furnished with a bracket for bolting to the structural wall and a hooked end for insertion in the masonry joint. Braces shall have a frequency not in excess of 10Hz based on the weight of the wall area per brace and a

vertical stiffness not in excess of 50% of the horizontal. Sway Braces shall be Mason Industries Type DNSB.

3. Angle Brackets: 11/2"(40mm) x 2"(50mm) angle iron sections with provision for bolting to the structure and a minimum thickness of 3/8"(9mm) sponge cemented to the vertical leg. Angle Brackets shall be Mason Industries Type AB-716.

2.02 Bond Breaker Material

1. Provide one (1) layer of 6 mil (0.15mm) polyethylene sheeting.

2.03 Perimeter Isolation

1. Minimum 3/4"(20mm) thick PVC foam, density 7 lbs/ft3 average. PVC foam shall be Mason Industries P7.
2. In seismic zone perimeter isolation shall be interspersed with 3/4"(20mm) thick, 60 durometer LDS bridge bearing pads the height of the perimeter material. Bridge bearing pad shall be made to AASHTO specifications, as shown and sized for a maximum deflection of 0.2"(5mm) at maximum earthquake forces. Interspersed pads shall be Mason Industries Type LDS-BBP.

Table 1. AASHTO BRIDGE BEARING SPECIFICATIONS FOR POLYISOPRENE

ORIGINAL PHYSICAL PROPERTIES			TESTED FOR AGING			OZONE	COMPRES- SION SET	LONG TERM CREEP
Tests: ASTM D-2240 & D-412			OVEN AGING(70hrs/158°F)					
Duro- meter Shore A	Tensile Strength (min)	Elongat. at Break (min)	Hard- ness (max)	Tensile Strength (max)	Elongat. at Break (max)	25 pphm in air by Vol. 20% Strain 100°F	22hrs/158°F Method B	168 hrs
40±5	2000 psi	500%	+10%	-25%	-25%	No Cracks	25%(max)	5%(max)
50±5	2250 psi	450%	+10%	-25%	-25%	No Cracks	25%(max)	5%(max)
60±5	2250 psi	400%	+10%	-25%	-25%	No Cracks	25%(max)	5%(max)
70±5	2250 psi	300%	+10%	-25%	-25%	No Cracks	25%(max)	5%(max)

NOTE: 40 Durometer is not included in AASHTO Specifications. Numbers are Mason standard.

2.04 Perimeter Caulking Compound

1. Non-hardening, drying or bleeding. Troweling or pouring grade. Caulking compound shall be Mason Industries Type CC-75.

2.05 Floating Floor Drains

1. Cast iron design. The upper funnel section cast into the floating floor. Lower bucket, built into the structure, shall retain water surrounding the upper section as a between floors sound seal. Weep holes are required to drain the structural floor. Floor drains shall have water proofing membrane clamps. Floor drains shall be Mason Industries Type CFD-18591.

PART 3 – EXECUTION

3.01 Installation

Install the floating floor systems according to the installation and adjustment procedures and drawings submitted by the isolator manufacturer and approved by the architect.