**FLOATING CONCRETE FORMWORK FLOOR SYSTEM**

**GUIDELINE SPECIFICATION**

**1.0 GENERAL REQUIREMENTS**

**1.1** **WORK INCLUDED:**

1.1.1 Provide labor, materials and equipment necessary for the complete installation of the Floating Concrete Formwork Floor System as shown on contract drawings and detailed herein.

**1.2** **RELATED WORK (BY OTHERS)**

 1.2.1 Work related to the installation of the Floating Concrete Formwork Floor System shall include but not be limited to the following:

Caulking :( by others)

Concrete and reinforcing :( by others)

Floor drains :( by others)

Metal pipe and conduit sleeves :( by others)

Waterproofing :( by others)

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**1.3 THE SYSTEM:**

 1.3.1 The Floating Concrete Formwork Floor System to incorporate engineered isolation pads, fiberglass perimeter isolation board, and plywood formwork placed on top of the isolation pads, junction connection plates, and polyethylene sheeting for temporary waterproofing placed over plywood formwork, low density fiberglass, junction plates, and perimeter isolation material.

**1.4 QUALITY ASSURANCE:**

 1.4.1. Retain the services of a qualified professional engineer to design the floating floor system.

 1.4.2.The Floating Concrete Formwork Floor System shall he furnished by a proven supplier with not less than 5 years experience in similar specialized systems. Single source responsibility is required to ensure continuity and quality. The supplier shall be responsible to provide the engineered design, supply the materials, and execute the installation. In addition, the supplier is to co-ordinate with other trades to ensure that their work has been conducted in accordance with the supplier's recommendations when this work impacts the Floating Concrete Formwork Floor System.

 1.4.3 Documents for approval:

The supplier shall submit shop drawings showing isolator placement for Architects approval prior to commencing work.

 - "quality certificate" showing material compliance with resonant frequency

 - "quality certificate" showing material compliance with static and dynamic load requirements

 - "quality certificate" of the isolation material covering the project load requirements

 - Reference list of worldwide projects over at least 25 years

**2.0 PRODUCT / SYSTEM**

**2.1 APPROVED SUPPLIER**

* + 1. All products and materials for work as described in 1.3.1 shall he supplied and installed by

 Vibro-Acoustics as represented by:

**2.2 MATERIALS**

2.2.1 Isolation Pads: as distributed by Vibro-Acoustics.

Isolation pads shall be nominal 2" thick. Isolation placement to be engineered by supplier but not to exceed 24" centers. The dynamic resonant frequency of the isolation pads shall not exceed 14Hz at the operating deflection.

* + 1. Formwork: The concrete pouring forms shall be **3/4**" thick exterior grade plywood. Metal junction plates are to he used to connect and hold in place the formwork to receive the concrete pour.

2.2.3. Perimeter Board: Perimeter isolation shall be 1” thick rigid fiberglass board placed between the formwork panels and side walls or vertical surfaces and all penetrations.

2.2.4 Junction plates: plates are to be made of galvanized steel and fastened to formwork to maintain proper alignment until concrete is in place.

2.2.5 Low Density Acoustic Media: to be placed in the air gap between formwork and structural slab

2.2.6. Waterproofing polyethylene sheet: temporary waterproofing sheet shall be minimum 6 mil polyethylene

**3.0 EXECUTION**

**3.1 INSTALLATION**

3.1.1. The installation and related work by others shall be in accordance with instructions offered by the system supplier, and approved by the architect.

3.1.2. Installation

- Perimeter isolation board installed

- Isolators and formwork put in place in accordance with the approved drawings

- install junction plates to ensure formwork remains in place

- Temporary waterproofing polyethylene sheet installed

- Prior to concrete pour (by others) inspect and report for correction any deficiencies which may prove detrimental to the performance of the floating floor system

- supervise the concrete pour (concrete by others) to ensure the formwork or any other component of the floating floor system is not disturbed.

- Once the concrete has cured, the perimeter caulking may be installed

- Once completed a “certificate of compliance of installation” is to be submitted.

**3.2 FIELD QUALITY ASSURANCE**

3.2.1 Any conditions which may prove detrimental to the performance of the floating concrete formwork floor system shall be reported and corrected prior to installation of the system.

3.2.2 Prior to the start of work by this section inspect the substrate surfaces including but not limited to the waterproofing membrane. Report any conditions which may be considered detrimental to the performance of the Floating Concrete Formwork Floor System.

3.2.2 After the concrete formwork has been installed by this section, inspect the installations conducted by other trades: including (but not limited to floor drains, floor penetrations (conduits, piping, ductwork, etc.) that they are installed in accordance with recommendations of the supplier of the Floating Concrete Formwork Floor System and report any deficiencies considered detrimental prior to the concrete pour.

3.2.3 Supervise the pouring of the concrete to ensure that the formwork is not disturbed in any way that may he detrimental to the performance of the Floating Concrete Formwork Floor System.

3.2.4Upon completion submit a signed certificate that the Floating Concrete Formwork Floor System has been properly installed