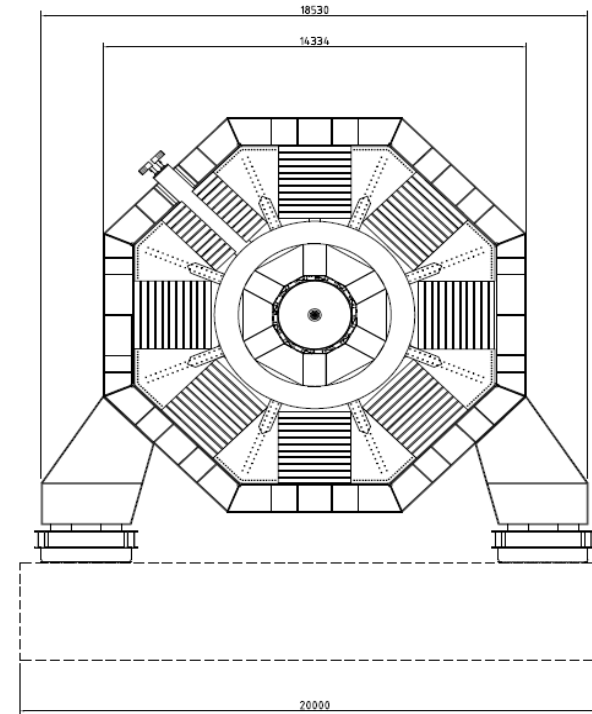
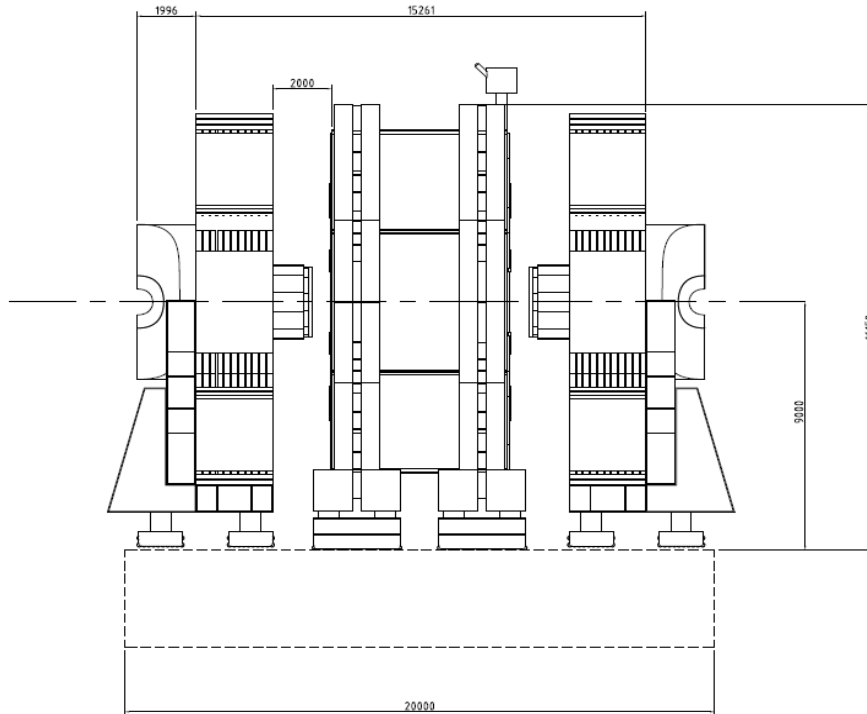


SiD Platform Functional Requirements



SiD nominal mass: Barrel 5000 T; (each) Door 2500 T

Dimensions:

Z = 20.0 m

X = 20.0 m

Delta Y = 9 m (Top of Platform to beamline)

Positioning Tolerance on beamline

Consider points Z=+-max, X=0. Position to + 1mm wrt references in X,Y,Z

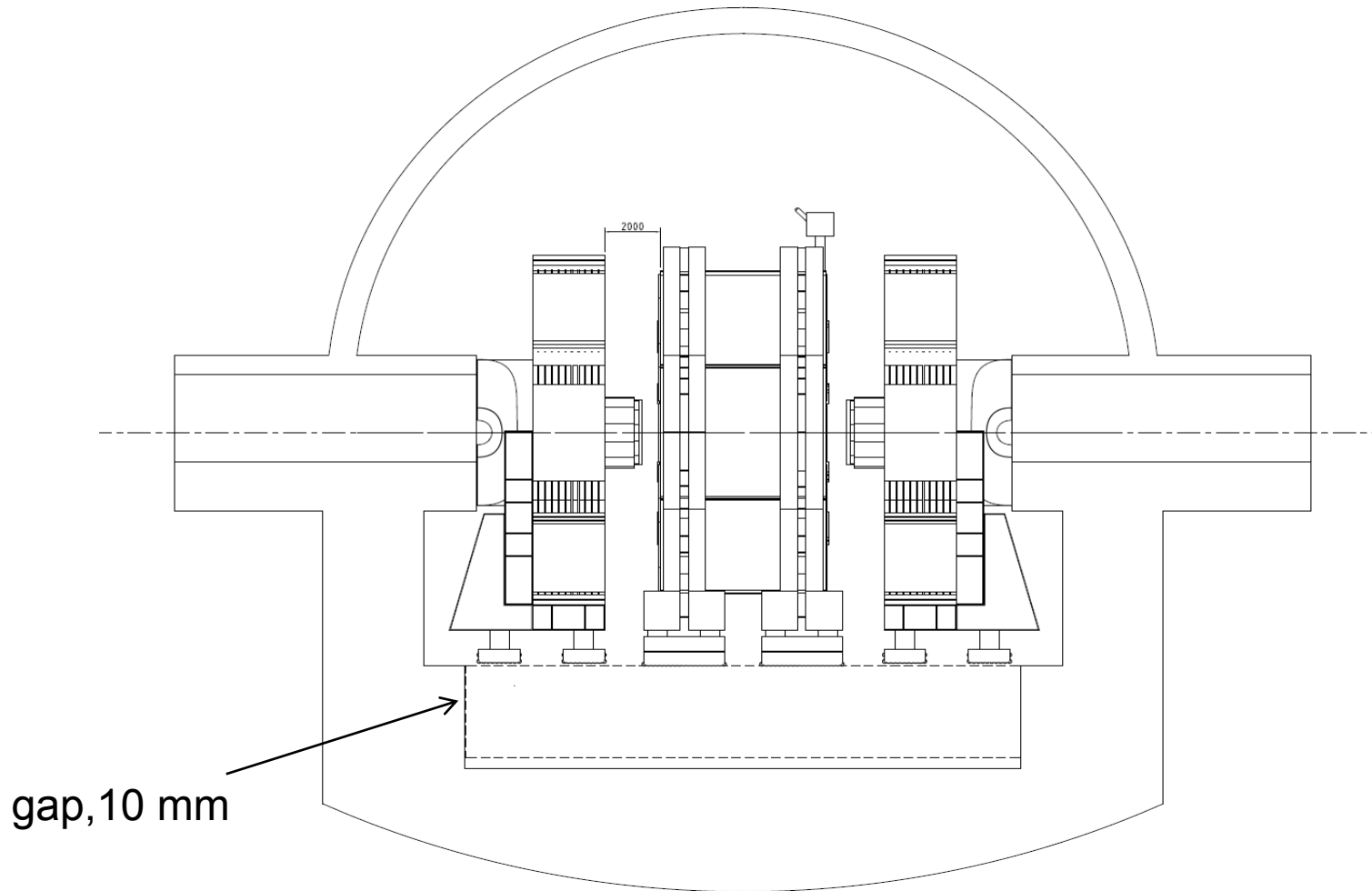
Consider points Z=+-max, X=+-max: Position to +- 1 wrt references in Y.

Static Deformations: <+-2 mm

Vibration Transfer Function from ground : Amplification < 1.5 between 1 and 100 Hz.

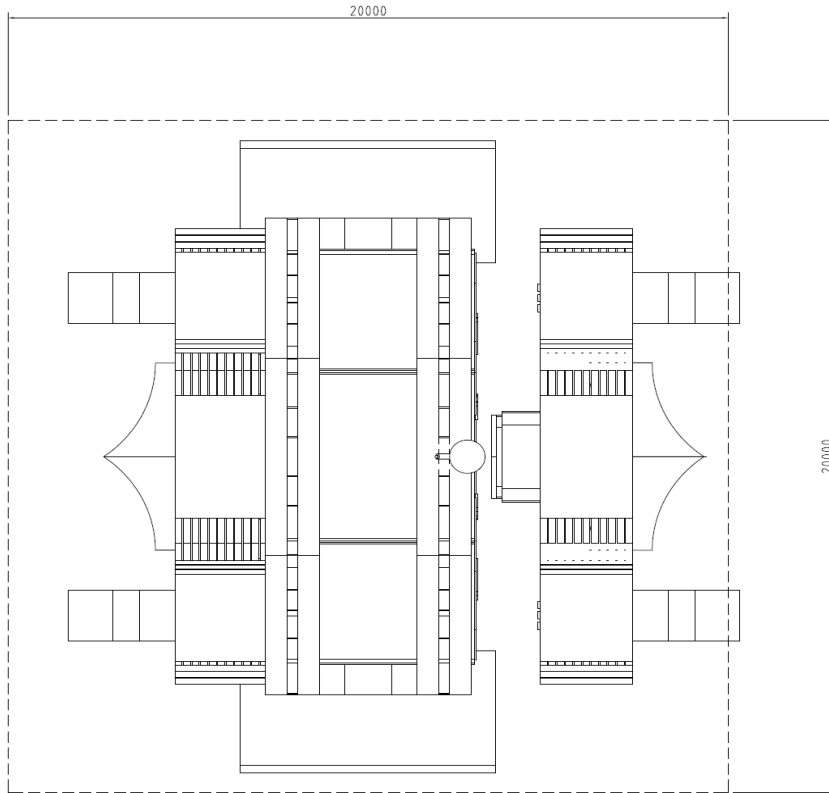
Seismic stability: Appropriate for selected site. (Beamline must be designed with sufficient compliance that VXD will survive)

SiD Platform Functional Requirements

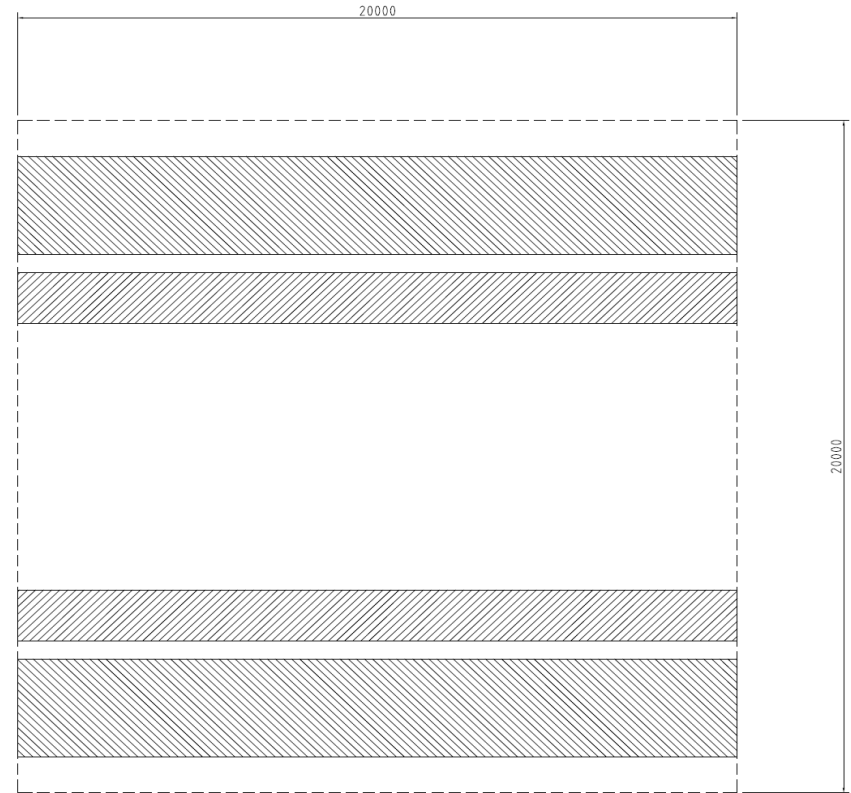


Wall clearance ~10 mm. Platform comes to side wall, there is no apron or apron matches platform elevation.

SiD Platform Functional Requirements



Detector Top View



Platform Top View

Surface Features:

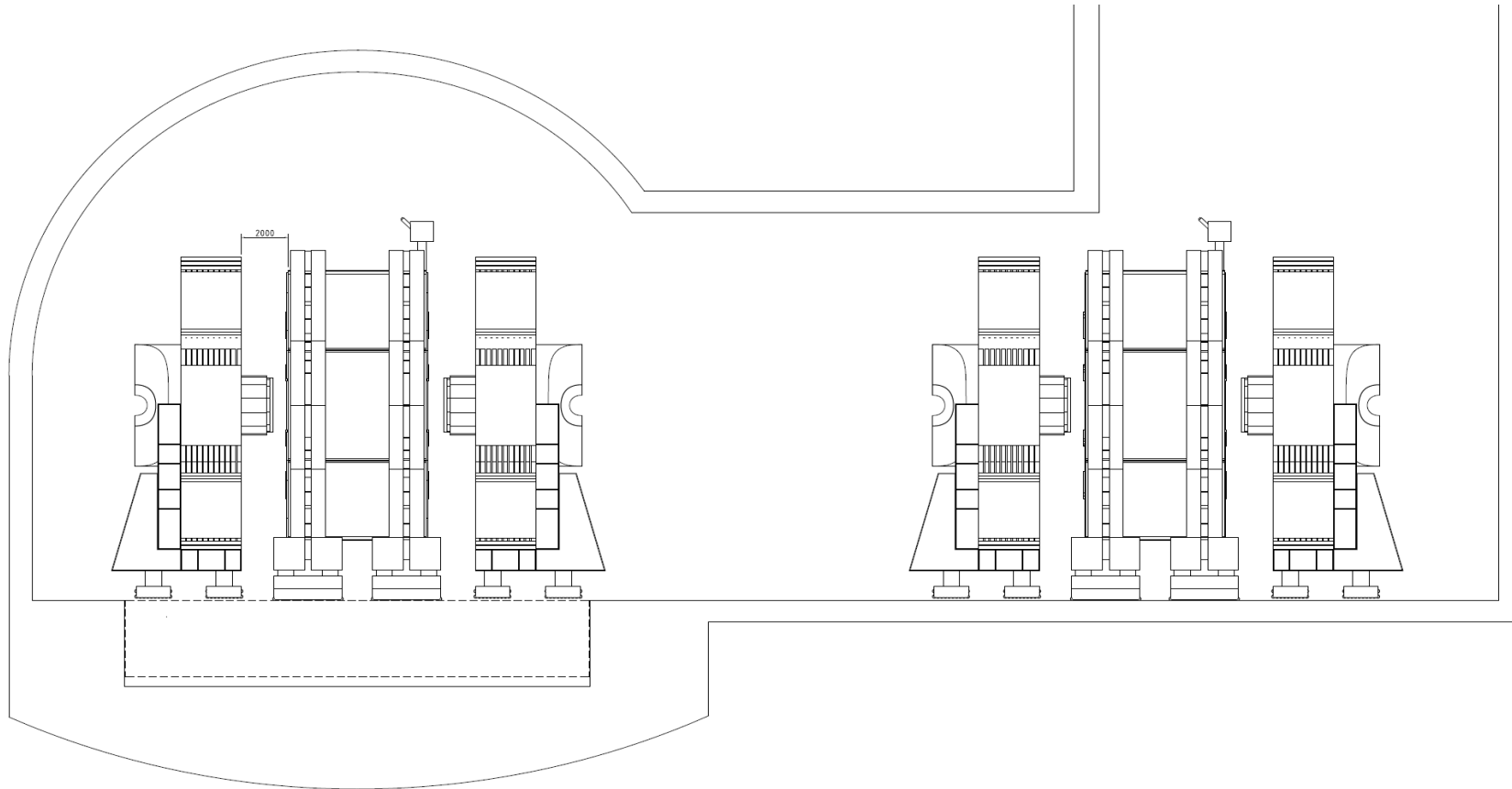
Steel Surface near legs

Steel rails for doors

“Receptacles” for tie seismic tiedowns of SiD Barrel and Doors

Removable Safety railings

SiD Platform Functional Requirements



Accelerations: $<1 \text{ mm/s}^2$

Transport velocity: $V > 1 \text{ mm/s}$ after acceleration

Life: 100 motion cycles.

Reliability: Transport modularity must be such that repairs/replacement/maintenance can be accomplished in garage position and within 20 elapsed days.

Any equipment required for transport shall reside below the platform surface.

Transport equipment shall not eject particulates that reach platform surface (need spec on how much)