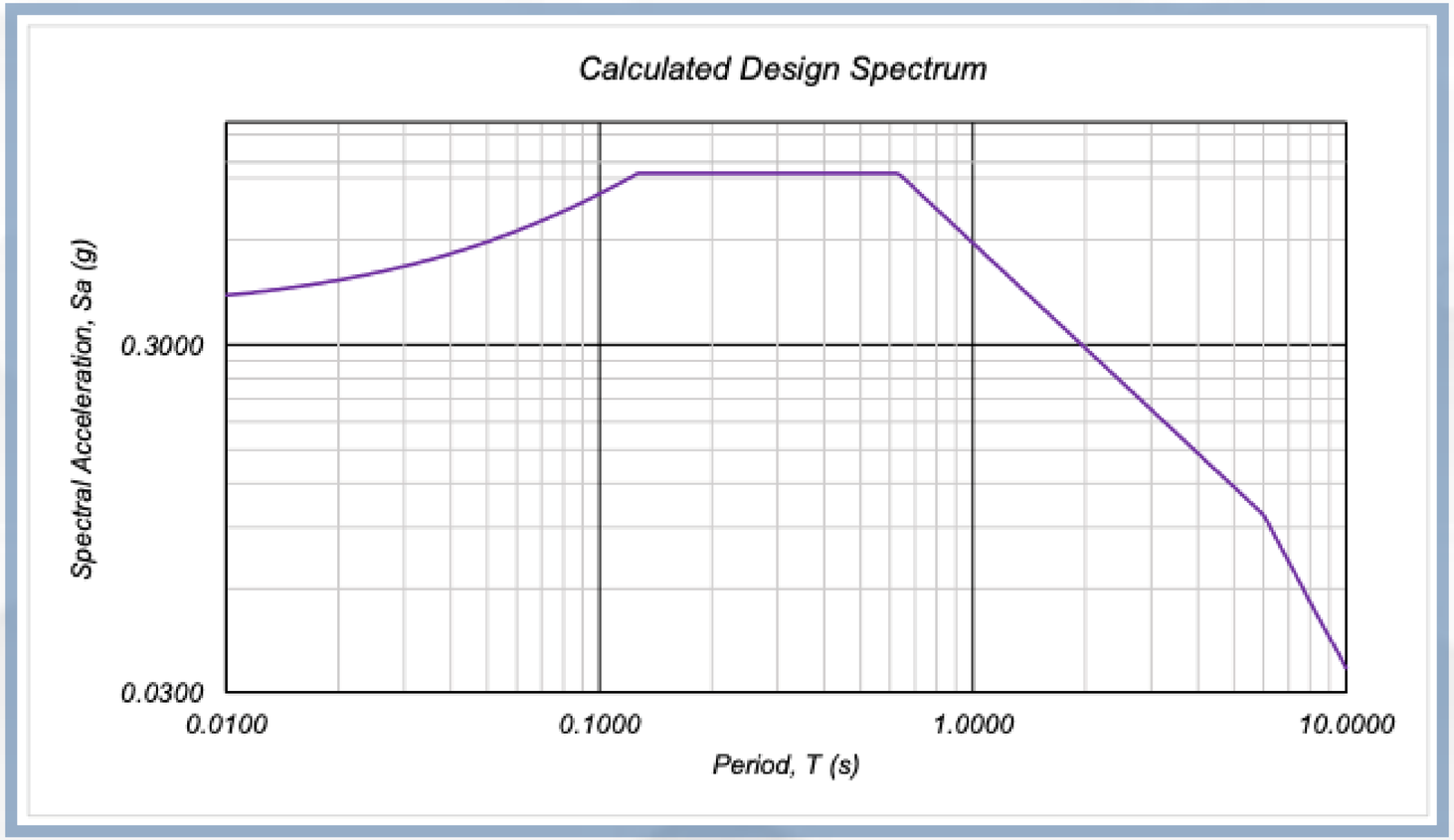
MCMASTER SEISMIC DESIGN TEAM

SEATTLE SEVEN HILLS HOSPITAL

GEOTECHNICAL DELIVERABLE

Time Histories for Future Analyses

1. Tohoku, Japan (2011)
2. Arequipa, Peru (2011)
3. Loma Prieta, USA (1989)
4. Maule, Chile (2010)
5. Nahanni, Canada (1985)



ARCHITECTURAL DELIVERABLE

Environmental

Timber construction lowers water usage, lowering greenhouse emissions by 6 to 11%

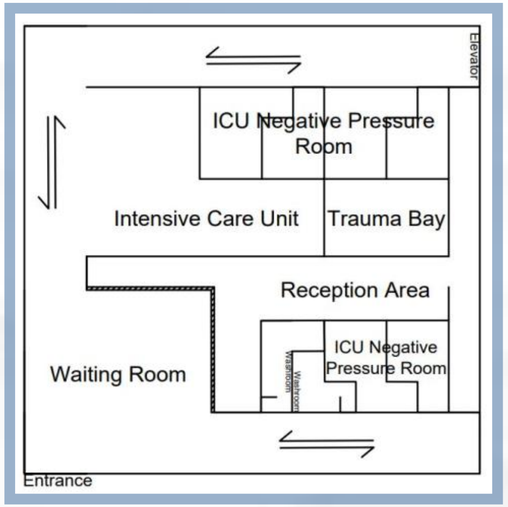
Tessellated concrete elements for efficient construction

Internal Operations

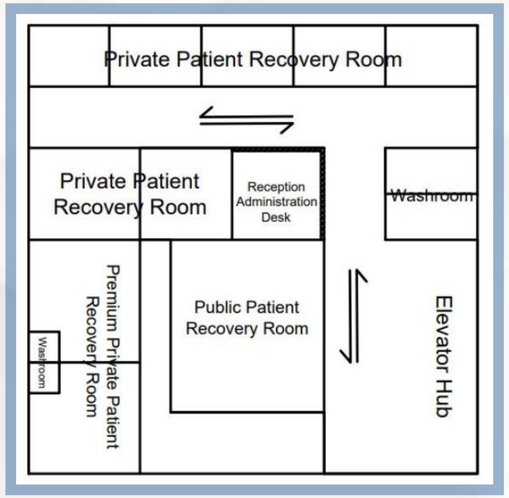
Green will represent low risk zones, yellow will represent medium risk zones, and red will indicate the highest risk zones

Installing and retrofitting new automatic separation doors will isolate areas of the hospital

All rooms will use HEPA filters to filter pathogens from the air before being released outside of the hospital

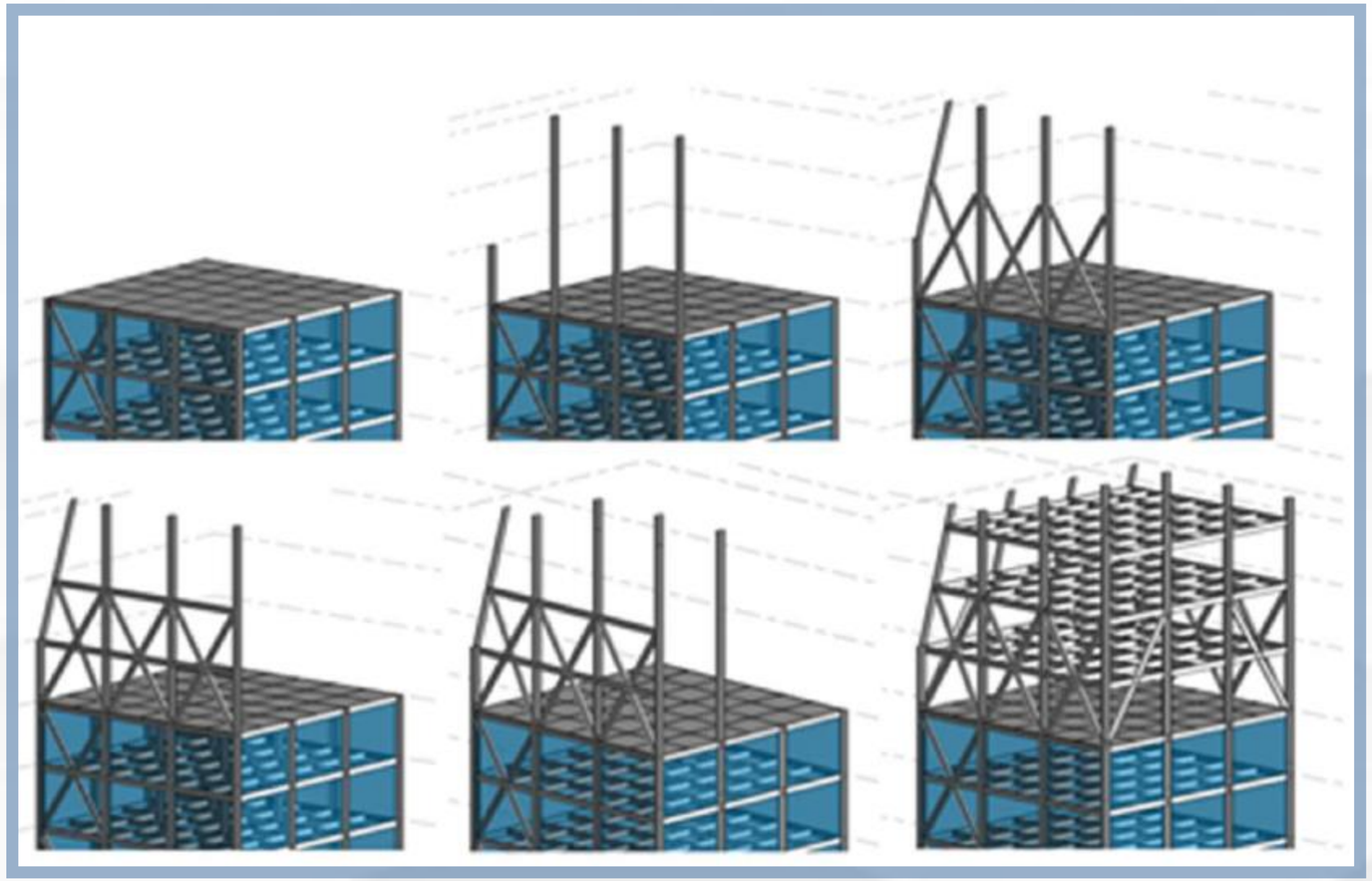


Ground Floor - Floor 4



Floor 10 - 19

STRUCTURAL DELIVERABLE

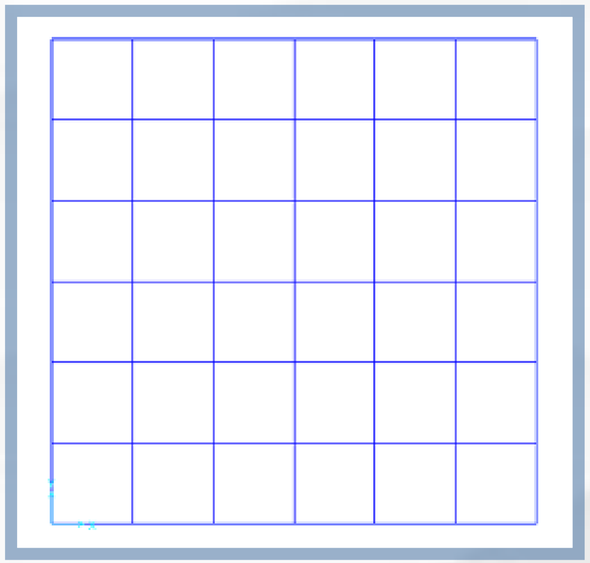


Floor	Average Inter-Story Drift Ratio
2	0.795%
3	1.054%
4	1.139%
5	1.176%
6	1.213%
7	1.181%
8	1.108%
9	0.992%
10 (Roof)	0.787%

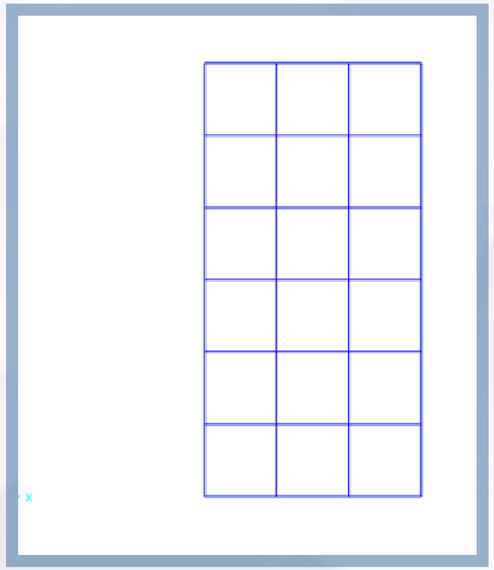
RETROFITTING DELIVERABLE

Objectives:

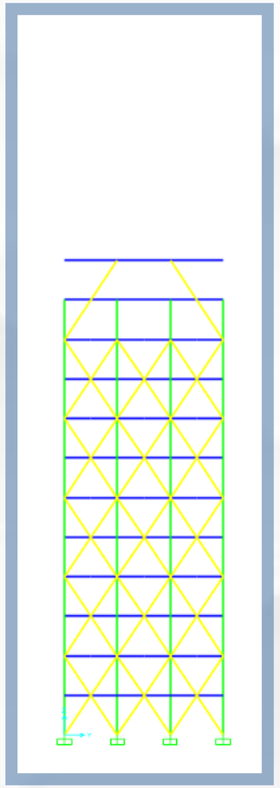
1. Utilize existing building's 'strong points'
2. Achieve standard & safe performance metrics from code
3. Maintain structural integrity and operations of existing structure



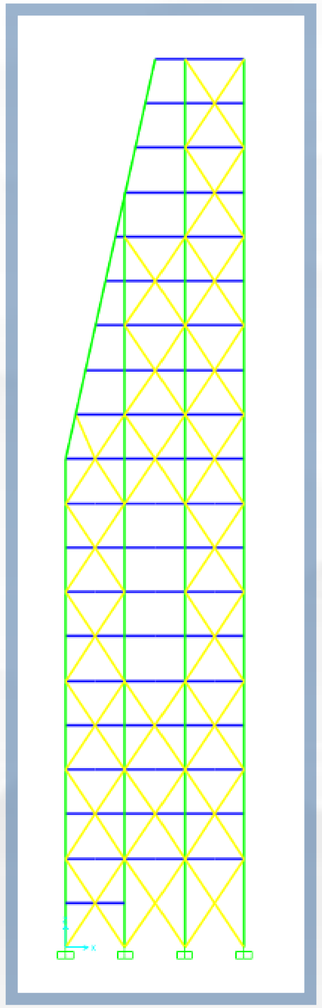
Floor 11



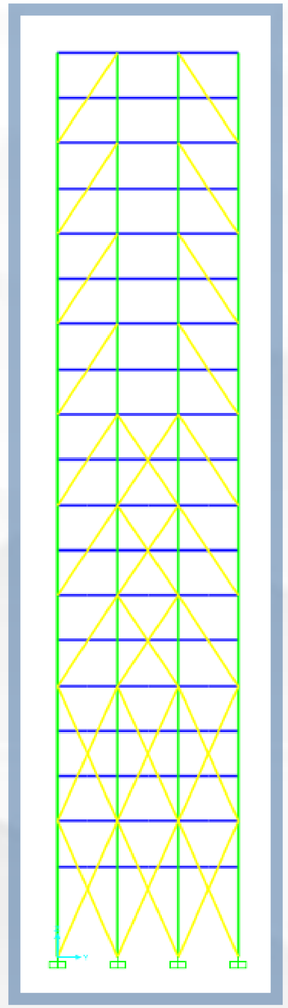
Floor 19



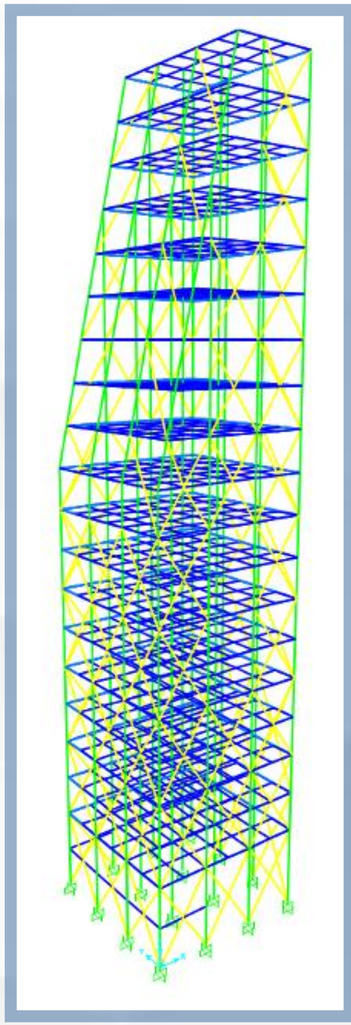
West Face



North & South Faces



East Face



Floor 19