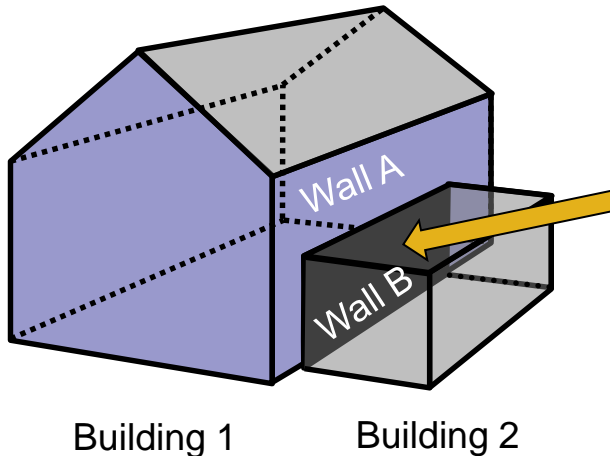
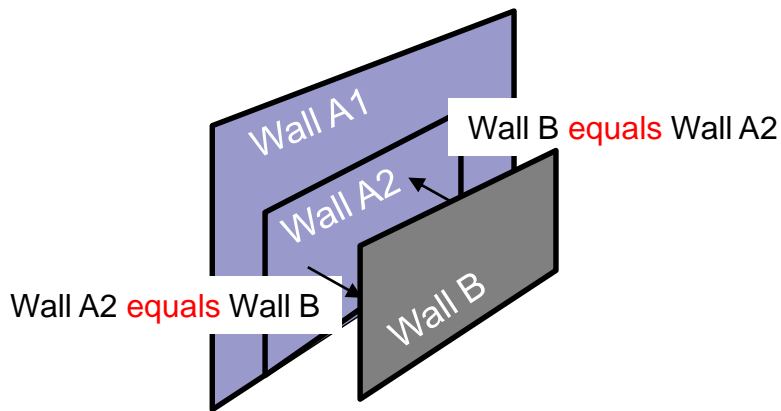


# Representation of touching surfaces using relation types

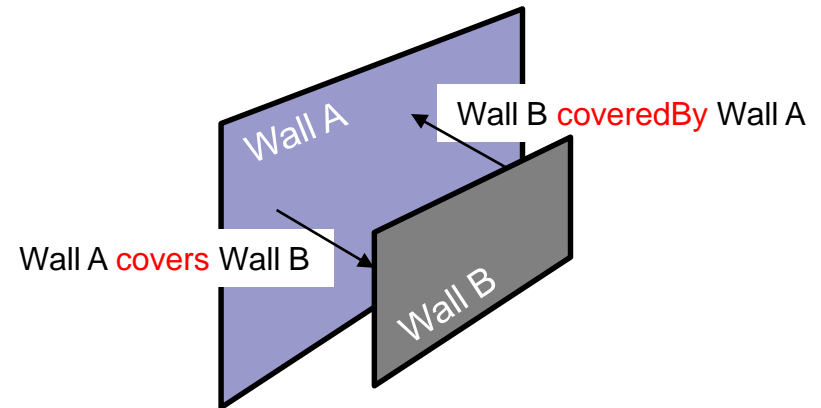


This touching surface can be represented in the following two ways using the relation types from the CityGML 3.0 Core module

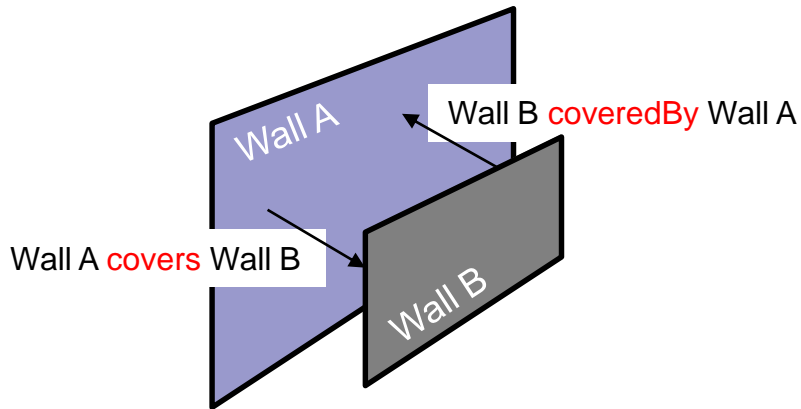
1) Wall A is split up into a touching (Wall A1) and non-touching (Wall A2) part. The topological relation “equals” is assigned to the touching surfaces.



2) Wall A is not split up. The topological relations “covers” and “coveredBy” are assigned to the touching surfaces.

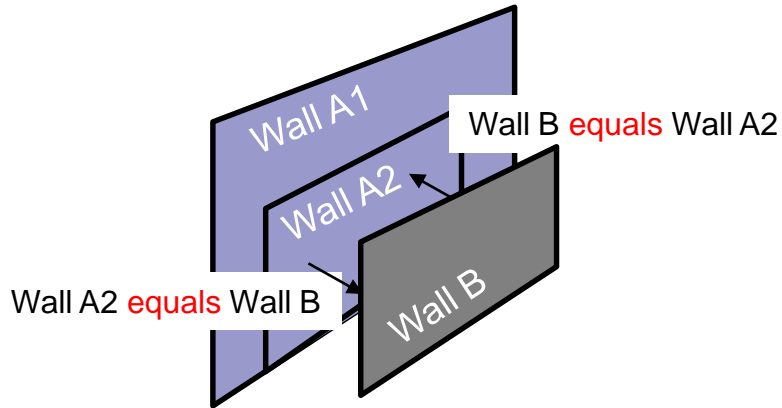


# Encoding of alternative 1



```
<CityModel>
  <cityObjectMember>
    <bldg:Building gml:id="BLDG_1">
      <con:constructionSurface>
        <con:WallSurface gml:id="WALL_A">
          <relatedTo>
            <CityObjectRelation>
              <relationType>covers</relationType>
              <relatedTo xlink:href="WALL_B"/>
            </CityObjectRelation>
          </relatedTo>
          <lod2MultiSurface>...</lod2MultiSurface>
        </con:WallSurface>
      </con:constructionSurface>
    </bldg:Building>
  </cityObjectMember>
  <cityObjectMember>
    <bldg:Building gml:id="BLDG_2">
      <con:constructionSurface>
        <con:WallSurface gml:id="WALL_B">
          <relatedTo>
            <CityObjectRelation>
              <relationType>coveredBy</relationType>
              <relatedTo xlink:href="WALL_A"/>
            </CityObjectRelation>
          </relatedTo>
          <lod2MultiSurface>...</lod2MultiSurface>
        </con:WallSurface>
      </con:constructionSurface>
    </bldg:Building>
  </cityObjectMember>
</CityModel>
```

# Encoding of alternative 2



```
<CityModel>
```

```
<cityObjectMember>
  <bldg:Building gml:id="BLDG_1">
    <con:constructionSurface>
      <con:WallSurface gml:id="WALL_A1">
        <lod2MultiSurface>...</lod2MultiSurface>
      </con:WallSurface>
    </con:constructionSurface>
    <con:constructionSurface>
      <con:WallSurface gml:id="WALL_A2">
        <relatedTo>
          <CityObjectRelation>
            <relationType>equals</relationType>
            <relatedTo xlink:href="WALL_B"/>
          </CityObjectRelation>
        </relatedTo>
        <lod2MultiSurface>...</lod2MultiSurface>
      </con:WallSurface>
    </con:constructionSurface>
    ...
  </bldg:Building>
</cityObjectMember>

<cityObjectMember>
  <bldg:Building gml:id="BLDG_2">
    <con:constructionSurface>
      <con:WallSurface gml:id="WALL_B">
        <relatedTo>
          <CityObjectRelation>
            <relationType>equals</relationType>
            <relatedTo xlink:href="WALL_A2"/>
          </CityObjectRelation>
        </relatedTo>
        <lod2MultiSurface>...</lod2MultiSurface>
      </con:WallSurface>
    </con:constructionSurface>
    ...
  </bldg:Building>
</cityObjectMember>
```

```
</CityModel>
```