By overlaying one grid upon another, a tartan grid is formed. This tartan grid contains an in-between third element - the interstice. The tartan grid allows for two different ways of thinking about space, overlapping and thickened. It can be seen as an "overlapping" of two or more elements where each one contributes a part of its form to the other, thus changing each element's original form. In this case, the third element arrives as a conglomeration of the two overlapping forms. It is clearly different from the two original forms, yet it also unites them.
The tartan grid can also be seen as a “thickened” grid which can hold two or more forms in isolation from one another, thus allowing them to each retain their own form. In this sense, the grid can delineate the structure of the building. This can allow one to experience the spaces within the building as pure geometric forms, such as a cubic volume.
The location of the site on the corner of P Street and 18th Street is important in the development of the thesis because of its two facing streets and corner condition. The corner condition creates a unique opportunity to engage the building with this dynamic site. A 12' x 12’ tartan grid is introduced onto the building site. By utilizing 2'-wide interstitial spaces created by the grid, the building can be broken down into 10’ x 10’ spaces. In order to mediate heat gain while also opening up the building to corner views, the grid is offset by 5’ and 5’ x 2’ columns are introduced along the two street facades. By opening up the corner in this way, the building engages the intersection and creates a place for pedestrian traffic. 2’ x 8’ x 18” stone benches are located on the sidewalk along the tartan grid of the building, creating places of rest, and a corner planter with a tree and flowers brings color and shade to the corner. The pour joints of the sidewalk further reinforce the tartan grid and, along with the benches and planter, unify the building grid with the site.
By employing a tartan grid as the regulating form, interstitial spaces are created which can become servant spaces for the building. This interstice can be the place where the building "lives", incorporating both its structural and functional aspects.
The works of Louis Kahn provide an example of what can be done with the thickness of a wall. Kahn used these spaces to house the servant spaces of the building, from mechanical systems, to bookshelves, to stairs. He also utilized the thickness of a wall as a shading device, as seen here in the Margaret Esherick House of 1959-1961.
The experience of a "cubic space" relies on the grid as the delineator of space. Windows and doors, as well as material changes can all influence how the space is experienced, but the appearance of the grid helps to regulate this experience.
The partial cubes inserted into the concrete frame of the building create cubic volumes within the classrooms. Wall placement and window openings in the insertions create multiple lighting conditions and view situations which correspond to the lighting needs of a particular classroom.
By having the boxes project from the building facade, greater lighting possibilities and unique views are created. The reflected color box creates a diffuse colored glow with an obscured view. The 1/4 open box and the side window box allow for directional light and partial views. The total glass box allows for maximum light and multiple views.