

FIRE STATION 45 DESIGN RATIONAL

The development of Fire Station No. 45 is a response to the growth of the suburban communities in the City of Ottawa wards of Kanata North and West Carleton-March. The need is immediate and will result in the closure of a station located on Cameron Harvey Drive. The station proposed will become an important new addition to the community and this evolving streetscape.

The new site provides a unique context that must be addressed by a formal design concept. The main objective of our design proposal is to maximize functionality of all the program spaces through adjacencies and articulation to enhance the private, the shared and the specialized spaces.

The fire station design must respond to the needs of a user group who occupy and reside on site for extended periods of time. A workplace is also a residence, a second home in many ways. It becomes a place to learn and train for one's career and a place for the Ottawa Fire Services to become an integral part of a growing community. The program's aim is to provide a comfortable, efficient and safe workplace. The plans developed are tailored to provide a small compact footprint with carefully selected exterior articulation and a strong aesthetic. Interior spaces are simple and located to enhance privacy and afford a clear separation of private "residence" space. The project site is well suited to connect these private spaces to an exterior experience. The rural farmland that surrounds the site is scenic and will be celebrated through views and connections.

The site selected for Fire Station #45 is located in an undeveloped rural area of Kanata at the corner of March Road North and New Street #1 entering a new residential development currently under construction. The subject site is currently occupied by vacant agricultural fields and based on historical searches, the subject land has always been used for agricultural and residential purposes.

The new intersection created by this development will become prominent and therefore much thought went into the detailed design for the facades facing March Road and New Street #1. The architectural expression of the apparatus bay design is intended to address the entrance to this new residential development. The aesthetic of this station will reflect the nature of the surrounding environment and history. Selection of exterior cladding materials for the station house portion of the building will provide a unique architectural response for this site emulating a rural barn wood aesthetic.

It is intended that site will be surrounded by a park and ride lot, combined with the busy March Road, our landscaping design will look to soften the edge of the site with trees and berms.

The design for Station 45 provides a further separation between the "public / operations" functions of the station and the "residential / home" spaces. The dorm sleeping quarters are positioned at the rear of the station with a direct connection to the outside staff parking for convenience. This quiet end to the building is further separated from the balance of the Station House with the offset corridor and expanded firefighter's lobby. The Fitness room, Kitchen and Lounge are positioned and addressed off the firefighter's lobby creating a sense of "Home" distinct from the working operations of facility.

The design has a modern but simple exterior envelope which provides the opportunity to use insulated precast concrete panels to improve constructability and combat the impacts COVID-19 has had on the construction market. The creative use of tilt-up precast concrete panels, as a single source structural cladding system, will address current market supply chain and labour shortage issues while providing the City of

Ottawa a beautiful and functional facility within the Project timeframe requested.

The design of each volume of the station has been developed to convey the distinct functions housed within. For the 'work' volumes of the Apparatus Bay, a clean and modern aesthetic was applied using a sloped roof profile enclosing all functions including the hose tower. The dark horizontal ribbed panels contrast to the light coloured architectural panelization of the tower portions.

Within the Station House volume, the vertical "wood" board form texture and colour of the wall panels will acknowledge the rural history of the site. Canopies over windows facing south and west as well as over the main entrance that wraps around and over the watch room windows provide shading from the sun.

The Fire Station is designed with the intention of becoming a key element in the streetscape and to present an important city asset to the community at large. The location of the site presents the opportunity to make Station 45 an entrance to this new and expanding community off March Road. The orientation of the Apparatus Bay is positioned with it's dramatic sloped wall detailing rising-up to focus ones' attention to the corner of the building addressing this community entrance. A large window into the apparatus bay is revealed with views into the station and the fire trucks.

The quiet end of the Station House is positioned away from March Road and its activities are sheltered from the associated traffic noise by the volume of the apparatus bay.