



## 1. SCOPE SUMMARY

The Project Team has conducted this study, which examines the modernization of the existing Cleveland Park Public Library in accordance with the District of Columbia Department of Public Library (DCPL) General Program Requirements. This study summarizes the two options as listed below :

### Option #1: Demolition of Existing Structure and Build a New Library:

Demolition of the existing structure and the construction of a new library will result in a fully operational library of approximately 21,288 square feet (SF). It will be designed with all current technologies (IT, AV, Security) and programmatic adjacencies as outlined in the DCPL General Program Requirements. This option allows for a thoughtful design that responds to the current demands of the Library and its visitors.

### Option #2: Renovation of Existing Structure and Build a New Addition:

In order to modernize the existing library to meet the DCPL requirements, approximately 5,400 square feet (SF) will be added above the existing ground floor with floor openings to create visual adjacencies. The extent of the structural, mechanical, electrical and plumbing (MEP) and civil improvements are included in the building analysis narrative (see Appendix B and C). The renovation will result in a fully refurbished and expanded library with approximately 23,000 square feet (SF).

### **Background Information:**

The existing Cleveland Park Library is located at 3310 Connecticut Avenue, NW, Washington DC. The library has approximately 18,000 square feet (SF) which is less than the DCPL’s general program requirements of 21,288 square feet (SF) for new libraries. Based on site investigations, the Project Team documented the existing conditions, deficiencies and code violations associated with the building exterior and interior systems that include but not limited to the roofing, piping, heating, ventilation, air conditioning (HVAC), electrical, fire protection, architectural and structural systems (see Appendix A, B and C.)

NOTE: The DCPL general program requirements for new libraries requires approximately 21,288 SF. The Tenley Town Public Library recently constructed is approximately 23,000 SF.

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## 2. EXISTING CONDITIONS ASSESSMENT:

The Project Team evaluated the following areas during the analysis:

- Architectural Design:** A design for renovation or new construction would accommodate the DCPL program with better space adjacencies, orientation, accessibility, and aesthetic quality. In the Renovation option, it will be challenging to incorporate DCPL spatial requirements due to the limitations of the existing conditions. However, New Construction will provide more flexibility in space planning, allowing the programmatic elements such as library stacks, bindery/ storage rooms, meeting rooms, offices and new media/ technology outlets to fit more cohesively within the building, more effectively meeting the DCPL general program requirements and standards. In addition, New Construction allows a building height of up to 40 feet resulting in attractive spaces on both the first and second floors.
- Parking and Accessibility:** Based on the zoning analysis, the number of existing parking spaces is insufficient for the DCPL program. Due to site constraints, additional parking cannot be added if the existing library is renovated. The required number of parking spaces will be provided as part of newly designed library. Additionally, one of the two main entrances to the lobby and public restrooms on the first floor is not ADA compliant. Renovation of the existing library will require resolving accessibility issues. New Construction will allow re-grading of the site and accessibility throughout the library.
- Historic Preservation Review:** Per the Project Team's meeting with the staff members of the District's Historic Preservation Office, the existing structure, built in 1953, does not fall in the category of historic structures in the Cleveland Park Historic community (1941 is the cut off year for historic structures). Therefore the library is **non-contributing** to the historic context of the community and the removal of the existing building is not critical to maintaining the historical context. In the design phase for either Renovation or New construction, HPRB and the Cleveland Park Historic Community will review the facade design to ensure it fits with the character and architectural context of Cleveland Park.
- Mechanical, Electrical and Plumbing (MEP) Design:** The existing MEP system is outdated and does not meet ASHRAE and NFPA standards. Therefore, a new MEP system that meets the standards for efficiency, temperature and ventilation and zoning control is required as part of renovation or new construction. In the New Construction option, the MEP systems can be designed in conjunction with the building skin, thus creating more efficiency between the two systems. In the Renovation option, the mechanical system will have to be sized to account for the additional square feet as well as the current un-insulated exterior wall assembly, thus reducing its efficiency.
- Sustainable Design:** Either renovation or new construction would allow the building to meet LEED Silver requirements with renovation being the more difficult option. The New Construction option allows for an integrated exterior envelope and MEP systems that will allow the building to operate more efficiently. DCPL has indicated a desire for a **Net Zero** building (A Net Zero building produces all the energy that it consumes). New Construction should be considered the acceptable option for Net Zero as it allows the opportunity to develop a fully integrated envelope and building MEP systems. The Renovation option is not feasible for Net Zero due to the inability to alter the existing exterior envelope.
- Structural Design:** The existing building is comprised of composite walls, concrete columns and infill concrete block walls. As described in the Structural analysis included in this report, the existing foundations may have limited structural capacity to support an additional floor as part of renovation and expansion of the library. Feasibility of an additional floor requires further exploratory analysis. It is possible that upon additional structural investigation an addition on the second floor and the relocation of mechanical equipment may not be feasible.
- Hazmat:** Based on hazardous materials assessment (see Appendix E), the existing library has traces of asbestos, PCBs, and lead based paint that need to be abated prior to renovation or demolition.

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- **Storm Water Management:** Based on the site investigation and discussion with the DCPL's Site Manager, there are storm water management and drainage issues in the parking lot and landscaped area behind the library. Additional investigation by a civil engineer and review of the 2013 storm water management regulations from the District of Columbia Department of the Environment (DDOE) are required to develop the storm water management design for the library.

### 3. PUBLIC APPROVALS:

For both Renovation or New Construction, the Architect of Record will have to engage several District of Columbia Agencies, Commissions and Groups (Please see page 10 for a full listing). In the New Construction option, special zoning approvals will not be necessary to achieve required parking spaces as this will be integrated into the library design. In the Renovation option, a waiver would be required as the current lot layout does not allow for expansion to provide the required parking spaces.

### 4. DCPL'S STANDARD PROGRAM AND ADJACENCIES:

The DCPL standards include approximately 16,392 square feet (SF) of program space. The required Core Factor of 29 percent increases the overall requirement to 21,288 square feet (SF). The New Construction option allows for space and adjacency efficiencies that can produce the required program. The inefficient core spaces in the existing building provide limited opportunities to meet the DCPL general program requirements and adjacencies; therefore making the Renovation option infeasible.

### 5. THE COST ESTIMATE:

Option #1 – "New Construction" of the existing library, is estimated to cost \$11,597,462. Additionally, this option allows for a Net Zero building, which is accounted for with a 30% premium for a "Net Zero" footprint, design fees and the associated site work. Per the SWOT analysis, the strengths of this option are based on the ability to provide space adjacencies and an integrated design. Option #2 – "The Renovation with Addition" of the existing library, is estimated to cost \$10,532,971 which includes design fees and the associated sitework. No allowance for "Net Zero" is included with option 2. It has been determined that to achieve a "Net Zero" footprint for this option is not feasible. Per the SWOT analysis, the weaknesses of this option are based on the challenges in adapting the existing structure and systems to a new design. This option is also weakened by the inefficiency of the existing building causing the need for more core space. Therefore, the New Construction option is recommended.

The cost of renovating the existing facility exceeds the 70% threshold of renovation versus new construction. It is an industry standard, that if the renovation of a facility costs more that 70% of a new facility, it is recommended that new construction is a more viable option.