Mesquite Library, a branch within the Las Vegas-Clark County Library District, is located in Mesquite, Nevada. The project was sparked by the consistent flow of students in the facility, to the point that the library was noticeably overpopulated during its hours of operation. Initially, sentiment was to abandon the existing facility, but the interest displayed in community charrettes and brainstorming sessions made it clear there was no interest in seeing the existing building go. Rather, the community members were more interested in an evolution and expansion of the library's service model.

The initial efforts to transform this facility into a modern and contemporary library that adequately addressed the needs of its users focused on the analysis of the existing program and services. While the traditional library is built upon a model that sees the patron visiting the library almost exclusively for checking out books, the 21st century library focuses on a service model that exponentially builds upon that. Libraries have become a community center for patrons, and the staff in charge are limited spatially and functionally when it comes to executing the services, programs, or tasks that patrons request. The shift in recent decades has elevated the library typology; books are still housed and offered in libraries, but the full breadth of services goes much further than a facility of stacks and quiet reading or study spaces.

The programming efforts for Mesquite Library introduced play areas, makerspaces, and interactive learning spaces, to name a few. The driving force behind such modern spaces is the 21st century library has become a place where interaction between people happens naturally. It is no longer a place where patrons go just to check-out books and study or read in silence. These programmatic considerations were architecturally translated into forms that took inspiration from the surrounding context—the natural, earthy tones of surrounding land and vegetation, and the flat top mesa surrounding Mesquite.

It was determined that an addition would resolve the issue of overcrowding. The new library facility sits on a large 3.2-acre site between Mesquite Boulevard and the existing library site to the north. During site design, it was decided that the new facility would be placed as close as possible to the existing library to maintain the physical and visual link between the two buildings. The west side of the new building engages Desert Road, conveniently leaving space for the parking lot on the east side of the site against the existing drainage channel and community trail. A 20-foot wide utility easement runs east to west along the north side of the property, necessitating breathing room between the north border of the site and the building. This space allows for the design of an open plaza that would accommodate both community and library functions as necessary.

The plaza is multi-functional space, most importantly one which provides unity and engagement between community members. Programmatically, it serves as a multipurpose space for food festivals, art shows, community celebrations, outdoor concerts, ceremonies, and the like. Alternatively, it can be used as a quiet area, outdoor reading space, or active play area.

The bosque of trees that line the plaza provide shade and simultaneously softens the plaza through the introduction of natural elements into a designed environment. It also pays homage to the history of Mesquite and the natural bosque of trees that existed along the river running through the city.
The client expressed interest in achieving a LEED Silver certification, but the design efforts have the building on-course to achieve LEED Gold certification at minimum. The certification process is currently underway.

Mesquite is working toward becoming a winter retreat for retirees and athletes due to its mild winters and nearby outdoor activities and recreational amenities. Because of this, they have become more environmentally conscious in their development efforts. Mesquite Library will be the first LEED-certified building in the town of Mesquite, an important endeavor that has won over the support of the town’s entire population. Sustainable strategies and features were integrated into the design using a holistic life cycle approach. This approach identifies the most beneficial and cost-effective sustainable strategies to minimize the energy consumption of the facility while conserving resources and minimizing adverse effects to the environment. These strategies, when coupled with appropriate construction techniques and effective operational policies, have been proven to improve occupant productivity, health, and comfort. Simultaneously, they reduce total operation costs of the project.

The siting and orientation of the building were chosen to maximize daylight and exterior views. Large overhangs on the east and west facades were designed to reduce heat gain while providing shaded, exterior environments for library patrons. Coupled with high performance low-E glazing and thermally-broken frames, daylight and views are maximized in 90% of all regularly occupied spaces. The public plaza provides gathering spaces shaded by trees for public events and community activities. The exposed building systems, along with a digital energy dashboard and interpretive signage, will serve as an ongoing educational exhibit illustrating the sustainable strategies used in the building and site.

Erosion and sedimentation control measures were implemented during construction. The track-out area and SWPP plan will minimize impact to the community during the construction process. An existing drainage channel for flood control was incorporated into the site stormwater management system. The project is located on a public transportation route as well as a bike path. Bicycle parking spaces are available in addition to outdoor gathering spaces. Landscaping and exterior design reduces the heat island effect with high albedo materials. Automatic lighting controls are consolidated to provide safety and access to lighting while reducing light pollution. Additionally, the existing library building was programmed as a learning center which allowed for repurposing in lieu of demolition, thus saving material and space in a landfill.

The landscaping consists of drought-tolerant plants and incorporates a water-efficient drip irrigation system. The building is also designed to use low-flow water fixtures. The interior water use is further reduced by metered faucets, waterless urinals, and high-efficiency mechanical equipment.
The design of the Mesquite Library uses a variety of building materials including steel, aggregate, and stone, among others, that were locally sourced. The facility was intentionally kept at a lower volume to minimize material consumption. Locally sourced and manufactured CMU, pavers, and stone were specified and used on the project. The concrete and CMU aggregate as well as the river rock for the gabion walls come from a quarry in nearby Arizona. Most materials used in the project came from within a 500-mile radius, which includes steel from Salt Lake City and interior finishes from Los Angeles. In addition to helping the local economy, these strategies also reduce the impact of long-distance material transportation. The interior design also made use of recycled content wherever possible and available. Mesquite Library only uses FSC-certified wood products for the stacks, wood doors, and other wood-based interior furnishings. The incorporation of zero and low VOC in the paint, adhesive, and sealant selections was done to maintain indoor air quality at its highest level.
Community workshops.

Collaboration between the community members allowed for a freely-flowing exchange of ideas regarding the success of services that the library currently provides and the services and programs the community would like to see provided.
This program document outlined the needs of the library and ways in which they can be met. The program itself accounts for numerous facets of community life that can take place within the modern library.

The table of contents below provides an introduction into the breadth of information provided to the client and level of thoughtfulness that fueled the subsequent design process.

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Aligning with the future goals of LV-CCLD.

With the development and advancement of the library typology, the design team explored various options for the many hats to be worn by Mesquite Library as a modernized and contemporary facility.

Library as Town Center envisions the facility as an economic development engine. Learning Culture perceives the Mesquite community as one that is dedicated to life-long learning - most easily to be carried out at the library, no matter the learner's age.
Thinking about program components.

The pages to the left feature the various components that come together to construct an appropriate program. This study, done in tandem with community stakeholders, explores the user, activity, outcome, and purpose of each part of the modern library.
Diagrams + synthesis.
The spatial diagrams indicate a suggested approach to allocating the program spaces.

The new site was proposed to be the community center, and the existing Mesquite Library site was proposed to be the learning center.

While the new building generated programmatic elements from scratch, the program document also discusses ways in which the existing facility could be revamped in order to contribute to the enrichment of its community.

Below:
Full enumeration of all programmatic elements.
Space diagrams.

The final (and largest) portion of the program document describes the functional objectives of the individual spaces represented in the program. They were intended to be diagrammatic as they would be implemented and expanded upon during building design. The program diagrams represent a 13,000 SF new building and utilization of the 5,464 SF existing library branch.
Plaza
Link to Learning Center (existing library)
Bosque
Main entry
Patio space
Outdoor cafe seating
Outdoor children's play area
Mobile maker-bus parking
Cafe + library drive-thru
On-site parking
Off-site street parking
Community trail
Service drive
Floor Plan

1. Front desk
2. Lobby/cafe/gallery space
3. Makerspace
4. Community room
5. Children's area
6. Stacks
7. Living room
8. Club/quiet reading room
9. Teen area
10. Work room
11. Staff area
GRAND OPENING CEREMONY