

CITY OF LADUE

Building Department

CITY OF LADUE ZONING AND PLANNING STAFF REPORT July 20, 2026

PLANNED DEVELOPMENT DISTRICT – GENERAL DEVELOPMENT PLAN (ZPC 26-10)

Location: Property surrounding the Rock Hill Quarries Landfill at McKnight and Old Warson. Lot A of Rock Hill Quarries, Plat 2. (1200 N. Rock Hill Road, 1233 N. Rock Hill Road, 1341 N. Rock Hill Road, 2577 S. McKnight Road)

Proposal: Rezoning to PDD with associated development plan for 11 single-family homes in the southwest corner of the property accessed from Old Warson. 31 single-family homes north of Deer Creek. Mixed-use building with up to 235 apartments and 9,000 square feet of commercial space.

Petitioner: Stock & Associates

Owner: T-V Acquisitions, L.L.C. (under contract)

PROPERTY

The property proposed for this PDD is 50.137 acres in size.

It is adjacent to residential uses. The properties to the west are zoned B residential. The properties to the north are D residential. The south and east sides of the property border on the City of Rock Hill. The easternmost strip of the development lies in the City of Rock Hill. This strip varies in width with a maximum width of about 140 feet. On the east side of McKnight Road, there is a condo development. To the south side are mostly single-family residential uses in Rock Hill.



Current Zoning

The easternmost 340 feet of this property – about 11.7 total acres – is currently in the D residential zoning district. The D district allows single-family residential homes with a minimum size of 15,000 square feet. The remaining 38 acres are zoned H- Industrial. Under the current zoning, this area could be occupied by light industrial uses as described in Section III.C.3. of the Ladue Zoning Ordinance (#1175).



The area of the property zoned Industrial has been occupied with industrial and construction uses since before the City of Ladue was incorporated. A rock quarry was established on this site over 100 years ago (1925). After many years of quarrying, a permit was granted in 1975 for the owners to fill the cavity by operating a landfill accepting demolition material. These landfill activities are still operating but are proposed to cease by no later than 2030.

(Note that the area of the quarry/landfill is not included in the PDD.)

McCarthy established their headquarters in the industrial area on the north side of Deer Creek in 1978 and began using the area to the west of the headquarters building as a construction lay down yard shortly thereafter. The McCarthy



headquarters building was demolished in 2023.

Castle Contracting has been operating construction services and storing materials and equipment in the southeast portion of this site (east of the landfill) for several years.

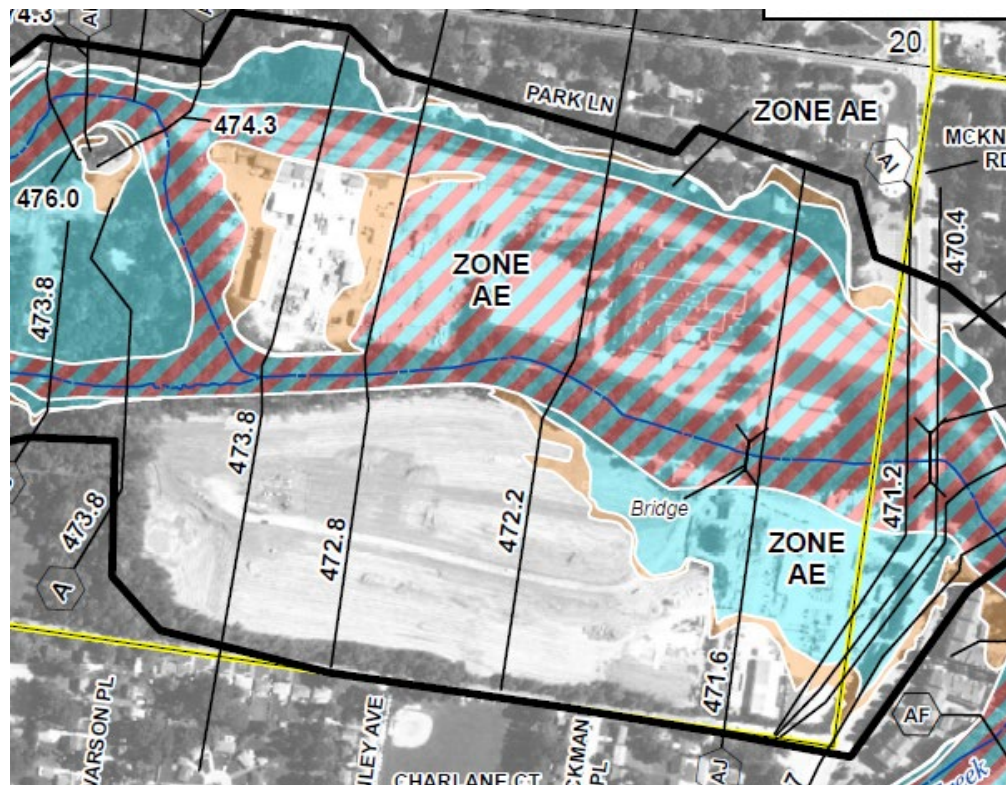
This property should be evaluated for any environmental contaminants from the construction yard, quarry and landfill operations, and other past activities.

Water resources

Deer Creek and Sebago Creek intersect on this property, and the creek has a substantial flow at this location. Ladue's Code of Regulations requires that there be a 50' stream buffer plus a 25' additional setback from major streams. Development in the stream buffer/setback area should be limited according to the Code. The reasons for the maintenance of the stream buffer are listed in Section 110-122 of the Ladue Code of Ordinances and include maintenance of biological integrity of the stream, reducing pollutants, providing infiltration of stormwater runoff, providing tree canopy and wildlife habitat, and general protection of the natural beauty and green space of the waterway. The PDD Ordinance states that any encroachment into the stream buffer or setback must show how the activities in the development are consistent with the objectives of the stream buffer.

Floodway/Floodplain

A significant percentage of this property is considered floodplain and floodway based on the current land elevations, as shown on this floodplain map image. A floodplain development permit is required to develop this property. Development must comply with Ladue Floodplain Regulations.



New Floodplain/ Floodway map (floodplain is blue, floodway is red and blue stripes)

PROPOSED REZONING TO PDD

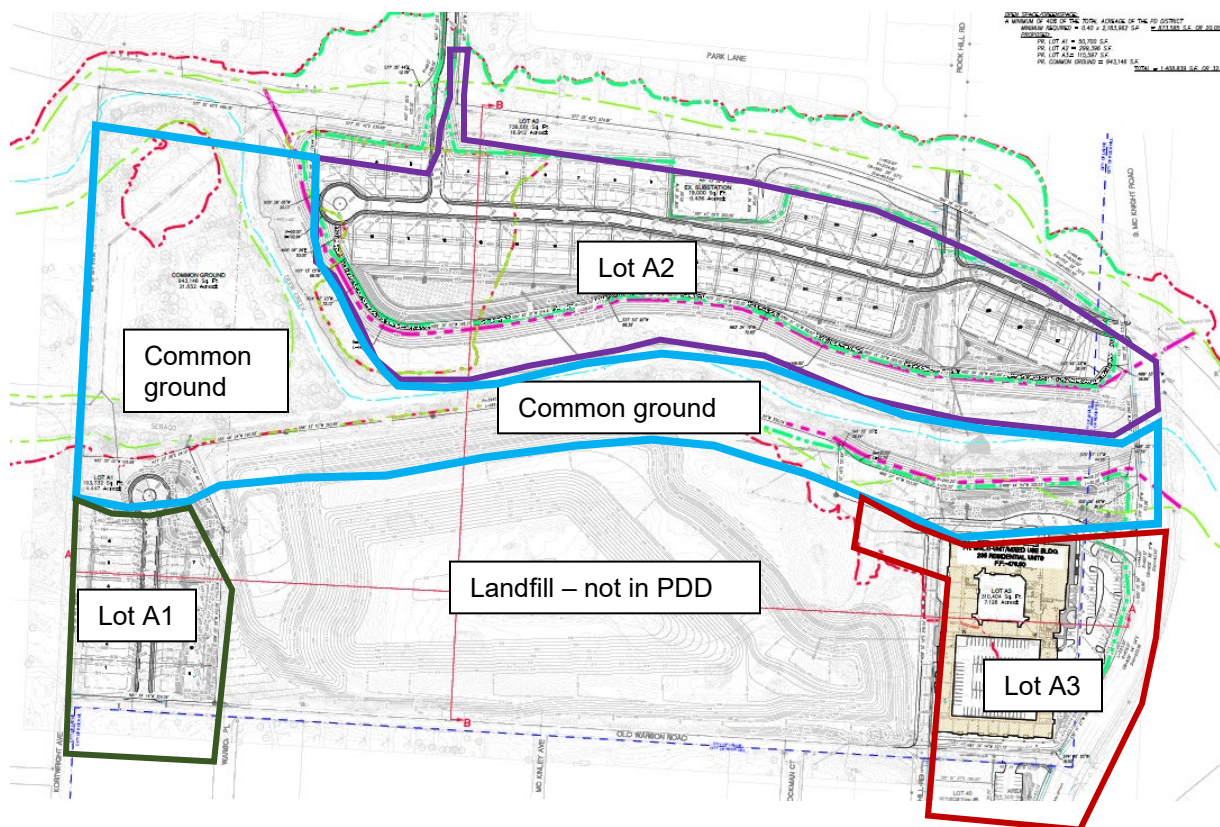
The proposed development would utilize Section XI (updated in 2026) of the Ladue Zoning Ordinance to create a Planned Development District. This would rezone the defined area as a specific planned district, with zoning requirements and standards for the area defined during the development process. The PDD ordinance is meant to allow for flexibility to create a unique development balanced with very high standards.

The objectives of the PDD Ordinance include promotion of pedestrian and bicycle connections, conservation of open space and natural resources through low-impact development techniques, a greater range of high-quality downsized housing options, and provision of parks and trails. The PDD was written to accommodate a flexible, mixed-use development – something that could not be developed by simply rezoning to another zoning district.

This proposed PDD includes the property surrounding the quarry/landfill but does not include the landfill itself. The landfill has a Special Use Permit and can continue to operate for a few more years. Ladue has been made aware of a closure plan that would result in the landfill property being elevated well above the current grade. This plan shows that the landfill would be capped and planted with native grasses.

Proposed uses

The property is divided into three main sections, with a slightly different type of living unit/community to be built in each section. In addition, there would be a large area designated as common ground, which would include a trail through the property.



Southwest section – labeled as Lot A1

The southwest 4.45 acres of the property would include 11 single-family homes. The five lots on the east side of the subdivision road are proposed with a square footage of 9,750 square feet each. The 6 lots to the west of the private road would each be 10,400 square feet in size. The average size of these lots would be about 10,100 square feet. This appears to be fairly consistent with the size of the lots located on the other side of Old Warson Road in the City of Rock Hill.

Below are the standards created for this area based on Sheet C4.1 of the submitted plan set.

Current zoning	D – Residential and H – Industrial
Minimum lot size	9,750 square feet
Minimum lot width	65'
Minimum Setbacks	
Front	20'
Side	5.5'
Rear	30'

This part of the development has about 50,000 square feet of open space, which is about 25% of the acreage of this section. The overall density of residential development on this section of the development is one house per 17,612 square feet. This is consistent with the density of the D district, which is the current zoning district in the area where these 11 lots are located, however these proposed lots are clustered to create a larger stream buffer/setback, conserve trees and open space, and create a large common ground area for stormwater detention.

It is anticipated that the homes in this area would be custom built and could be developed by more than one builder. Based on this plan, there are no architectural plans being submitted for this area. Homes in this neighborhood would be reviewed by the Architectural Review Board one-by-one in the same way that new homes are reviewed for other areas of Ladue.

North of the Creek – labeled as Lot A2

The area to the north of Deer Creek has been identified for a slightly different style of residential use. This area is 16.9 acres in size and would be developed with 31 single-family lots with a minimum size of 10,320 square feet. This is described in the submitted PDD narrative as a maintenance-free “villa” community and would be developed by Fischer and Frichtel Homes.

This area is currently zoned Industrial and is adjacent to D zoning to the north. There is an open space buffer between the proposed development and the Park Lane neighborhood to the north. This 16.9 acre section has almost 6.9 acres of open space, which is 40.64% of this area. The overall density of this area is one residence for about every 23,763 square feet, which is actually slightly less dense than the D district, to which this area is adjacent. For comparison, the Park Lane subdivision to the north of this development has an average total size of 17,045 square feet per residential lot. The clustering of these lots in the PDD development allows for larger open areas for stormwater detention, buffering from other residential areas, and buffering from the waterways. Clustering residences also reduces the length of road-

ways needed to serve the development which reduces the amount of impervious pavement required and has less environmental impact.

Current zoning	H - Industrial
Minimum lot size	10,320 square feet
Minimum lot width	86'
Minimum Setbacks	
Front	20'
Side	5.5'
Rear	15'

This “villa” development is intended to be developed by Fischer and Frichtel with similar sizes and floor plans for all units. Several design options have been proposed for this section of the development and would have consistent materials and color palette. These residences are currently designed to appear as one-story buildings facing the road with walkout basements and a two-story appearance from the rear. The proposed designs were reviewed and discussed by the Architectural Review Board, but the Board had many comments and concerns about the design and continued this matter with no decision issued.

Southeast corner of the development – labeled as Lot A3

The southeast corner of the development would be a single lot with 6.2 acres. This area is currently zoned H- Industrial. This portion of the development would have a single building with up to 235 apartment units and about 9,250 square feet of commercial space. On the opposite side of McKnight Road from this development is a condo development in the City of Rock Hill. On the opposite side of Old Warson Road, the property at the southwest corner of the intersection of Old Warson and McKnight Road is owned by the Rock Hill Quarries company and is shown as a parking lot. The property just to the west of the parking lot is currently vacant.

- The footprint of the building and parking garage is proposed to be 115,335 square feet. The proposed height of the building is about 61 feet.
- This area is buffered from single-family residences by Deer Creek to the north and by the landfill property to the west.
- The 9,250 square feet of commercial space in this building is intended to be restaurant and retail.
- This development would include 53 surface parking spaces and 520 parking spaces in a parking garage.
- The parking lot has a landscaped buffer along McKnight Road and also includes landscaping around and within the lot.
- The Architectural Review Board has given conditional approval for this mixed-use structure but also has several comments that address remaining concerns about the design and the site plan.

The PDD requires that an apartment building provide generous amenities to residents and requires an average unit size of 950 square feet for all apartments in the building. Other standards are required by the PDD Ordinance for apartments in order to ensure that these units are high-quality and desirable for Ladue residents seeking to downsize.

Common Ground

The largest lot in this development would be a common ground lot with a size of 21.652 acres. This lot includes Deer Creek and Sebago Creek along with the area in the northwest corner of the development that is bordered on three sides by waterways. This common ground area also includes the trail. The trail is at the north edge of the common ground area, just south of the residential area designated as Lot A2. The trail would be 10 feet in width to accommodate both walkers and cyclists. Benches and bike racks would be provided where the trail connects with the sidewalks in Lot A2. It is our understanding that modifications to the endpoints or additional connector sections may be needed to facilitate connection of this trail with other nearby trails in the future.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

This proposed PDD would support certain goals of Ladue's Comprehensive and Strategic Plans, as follows:

Comp Plan and Strategic Plan goals support an increase in housing options, including small lots and higher density options for residents wishing to downsize as indicated in the following:

Comp Plan. Strategy 3.4 Consider expanding the opportunities for small-lot single family home development and high-quality single-family townhomes or villas, and condos in the City's commercial zoning districts.

Comp Plan. Strategy 3.5 Develop design guidelines for small-lot single family homes and attached homes (to facilitate a greater range of housing options).

Strategic Plan. Goal 1. Strategy 2. Explore downsized housing opportunities in commercial areas through mixed use zoning.

Action item 2: Create new zoning district or PUD along with design guidelines to encourage the desired mixed-use environment, where appropriate

Also, the development and expansion of trail opportunities is supported by the City's Comprehensive and Strategic Plans.

Comp Plan. Strategy 2.3 Expand the City's network of greenways and publicly accessible open space...

Comp Plan. Strategy 5.4 Explore opportunities for additional trails within the City that follow natural features, such as the Deer Creek Trail and other potential trail opportunities.

Comp Plan. Strategy 9.6 Facilitate the future development of new open space, community gathering spaces, and other desirable community amenities.

Strategic Plan. Goal 5, Strategy 3. Expand the City's network of greenways and publicly accessible open space

Although housing diversity is encouraged by the Comprehensive Plan, it has also been pointed out that there is not a specific recommendation in the Comprehensive Plan for the Rock Hill Quarries property, which is currently zoned industrial, to be developed for high-density housing or mixed-use development. Instead, the Plan states that care is required to address traffic, stormwater, floodplain, and environmental conditions and concluded, “[t]he land use of this district is intended to remain the same until which time the landfill operations have ceased and the landfill has been capped such that environmental impacts of the site and suitability for redevelopment and its impacts on future proposed uses can be evaluated.” (P. 89).

It has also been argued that the concept of expanding downsized and small-lot housing for Ladue residents is not compatible with the proposed high-density apartment development.

COMPLIANCE WITH PDD ORDINANCE

The initial task of Ladue staff was to determine if the application submitted for the rezoning and General Development Plan was complete. A narrative was submitted about the development, but staff determined that the required zoning text was not submitted with the application. The narrative was revised and supplemented with more specific standards and resubmitted on June 17th, at which time the application was deemed complete and the 90-day Zoning and Planning review period began.

Comments about review status are as follows:

General requirements

- The proposed PDD Development meets the basic location and size requirements (at least 40 acres and contiguous with the municipal boundary of Ladue).
- The proposed PDD supports certain goals and objectives of the Comprehensive Plan and many of the objectives of the PDD Ordinance, however questions remain about some of the Comprehensive Plan recommendations and certain PDD objectives, such as conservation of waterways and woodlands.
- The PDD community must be thoughtfully designed with compatible architecture and high-quality architecture and materials. The architecture of the project was reviewed by the Architectural Review Board with the current status of their recommendations as follows:
 - ARB granted conditional approval to the multi-family structure on May 7th with a list of issues remaining to be resolved. This was also discussed at a work session on 5/21, and additional comments were distributed to the architect.
 - The overall development plan and site concept received conditional approval on 5/21 with a list of remaining items to resolve.
 - The villa development (Fischer and Frichtel) was continued on May 21st with a list concerns and comments provided by the ARB. A follow-up work session then took place on 6/10 regarding the villas with additional comments distributed to the architect.
(Minutes and ARB commentary are attached at the end of this report.)
- Development meets the overall maximum residential density of 6 units per acre. The density of the proposed development is 5.52 units per acre.

- The proposed development meets the requirements for incorporating multiple types of residential units as well as commercial uses.
- Item C.8 requires that a mixed-use building must provide open space, landscaping, walking paths, and areas for outdoor seating/gathering around the building. Other amenities, such as a dog park, outdoor kitchen, fire pit, or recreation amenities are encouraged. It does not appear that there are sufficient landscaped areas or outdoor seating areas around the building.
- A pool and patio area is shown on the plans and fulfills some of the requirements regarding amenities.
- The total height of the building is proposed at about 61 feet including parapets. This is in compliance with the maximum allowed building height of 68 feet. The 5th story is stepped back, as required.
- Landscaped buffers are shown adjacent to public roads and appear to meet the minimum required width of 20 feet.
- As required, 20' minimum setbacks from private roads are provided for single-family residential lots.
- The development meets the requirement that there be a minimum of 6,000 square feet of commercial space. Over 9,000 square feet of commercial space is proposed. It has been indicated that the commercial uses will be restaurant and retail.

Pedestrian connectivity and amenities

- A trail/greenway with a width of 10 feet is provided.
 - Staff has provided comments about the trail with questions about a shoulder adjacent the south side of the trail since it slopes fairly steeply to the creek. It also appears that there would be little to no shade on the trail, as shown on the plan.
- According to Section E.4 of the PDD Ordinance, sidewalks and walkways shall provide pedestrian access to other areas of the district.
 - This is not provided. The Lot A1 area is not connected to any other section of the district. Sidewalk along Old Warson is required.
 - ADA compliant sidewalks are also required along McKnight Road.
- Sidewalks and tree buffers are provided along the private roads within the development, as required.

Beautification and Landscaping.

- It appears that trees and landscaping have been provided along roadways, as required.
- Landscape plans were reviewed and comments were sent to the developer (attached to this report).
- All rooftop-mounted mechanical equipment will require screening, subject to the approval of the Architectural Review Board (ARB) and based on the ARB Guidelines. The plan does not include rooftop screening of mechanical equipment. This was one of the comments from the Architectural Review Board.
- Fences, retaining walls, and other improvements shall be subject to applicable requirements in the Zoning Ordinance, unless otherwise specified in the PDD approval ordinance. This was partially addressed in the development narrative.

Signage

- A detailed signage plan must be submitted with the Specific Implementation Plan (SIP) but is not required at the GDP stage. The project narrative includes basic standards for signage to be permitted in the development.

Open Space Stream Protection, Stormwater Management, and Floodplain

- The minimum required open space is 40%. The project exceeds this and has 64% open space.
- A floodplain study has been submitted by the applicant and was reviewed by Ladue staff and consultant, HR Green. A revision to the initial floodplain study was also submitted for review by staff and HR Green. Review documents by the staff and consultants are attached to this report. Initial review indicates that the proposed building elevations can be considered “reasonably safe from flooding.”
- Changes to the property and grading near Deer Creek are projected to create an increase in the flow velocity in the floodway in this area. The City of Ladue does not allow any development that results in an increased floodway velocity and, therefore, this would require a variance from the Flood Management Board. The developer applied for a variance for the velocity increase, but it was withdrawn prior to the scheduled hearing with the Board on July 7th. Consequently, the current proposal violates the code and cannot be approved as-is without a condition to address this code violation.
- The plans do not clearly indicate the location of the stream buffer and setback areas, so compliance could not be fully evaluated, however plans show that grading would begin immediately adjacent to the streambed where the Code of Ordinances (Section 110.125) states that an “undisturbed natural vegetative buffer” is required, so it is clear that encroachment into the vegetated buffer would take place. Improvements would involve significant grading, which would include removing all vegetation.
 - In acknowledgement that the stream buffer would be encroached upon, the application included a “Stream Buffer Benefits” statement indicating how this development would meet goals and benefits of the stream buffer/setback requirements, despite the encroachment.
 - Ladue Stormwater Engineer, Steve Stumpf, prepared comments about the stream buffer narrative. His comments addressed the many discrepancies between the proposed plan and the requirements of the stream buffer ordinance. Comments are attached to this report.
- MSD reviewed the plan and issued a preliminary review letter.
- Stormwater management plans were evaluated by Ladue staff and consultants. Initial review by the Ladue stormwater staff indicated that plans generally conform to Ladue stormwater regulations but also included comments and requests for additional information and documentation. Comments are attached to this report.

Traffic, Connectivity, and Parking.

- The road widths meet the requirements in the PDD Ordinance -- 26-foot width for any road with a fire hydrant.

- The Ladue Fire Department reviewed the plan and requested clarifications regarding road and driveway widths in the plans.
- A traffic impact study was submitted by the developer's consultant (Lochmueller) and was reviewed by an independent consultant hired by Ladue (CBB). The Lochmueller traffic study listed several traffic improvements intended to better manage traffic and concluded that, with the proposed mitigations implemented, traffic in 2049, after construction of the PDD, would operate at acceptable levels.
 - The traffic study peer review by CBB included some other suggestions and alternative mitigation strategies but agreed overall with the trip generation estimates and directional distribution assumptions presented in the Lochmueller report.
 - The peer review provides alternative recommendations, including turn lane and alternate site access locations.
- Most of the parking for the mixed-use building is located in the parking garage. There are also 53 surface parking spaces. This parking area appears to be adequately buffered and landscaped to minimize the visual effect of surface parking.
- The number of parking spaces appears to be adequate. There is a requirement that at least two enclosed parking spaces be provided for each residential unit. For 235 apartments, the required parking for the residential use is 470 spaces. It is indicated that the mixed-use lot has 573 spaces including the surface parking and garage spaces. It is assumed that some parking will be needed for visitors, but this still leaves ample parking for commercial use. For instance, 7,000 square feet of restaurant and 2,000 square feet of retail would require 92 spaces according to City parking standards. With parking spaces shared among users, as is required for this PDD, the parking standards can also be fairly flexible. The amount of parking shown for this site appears to be more than adequate.
- Adequate street connections are shown on the development for access in and out of the site, connecting in multiple directions.
- There is a requirement that parking areas have at least 10% landscaping coverage. This particular requirement is not specifically addressed in the plan and can be deferred to the Specific Implementation Plan phase, if desired. It looks like the plan meets the minimum tree requirements but all parking lot landscaping requirements would need to be reviewed at the SIP phase in more detail.
- The potential need for striped pedestrian crosswalks within the parking area should be discussed during the SIP review, as well.

Other requirements/comments

- This PDD would remove this development from the Industrial District and create a new zoning district created specifically for the designated property. The PDD provides standards for initial plans and construction, but it will be very important to have an ordinance with enough specifics to maintain the development to the desired standards. Ladue's typical zoning requirements may not be desired for all elements. The development team submitted a document that provides much of the information required for the "zoning text" but this will need further review to ensure it is adequate.

- The Ladue Fire Department requested more information about hydrants and further information about compliance with certain fire code requirements. An updated plan submitted by the development team on 6/19 addressed some of the Fire Department's comments.
- A memo from Chief Lynn indicates that the Fire Department has the capacity to serve the new development and can provide the needed response with the support of the mutual aid system but also feel that acquiring a ladder truck within the next ten years would be beneficial.
- A memo from Chief Andreski states that the Police Department can adequately cover this new development with a few operational adjustments. No major changes would be anticipated as a result of this development.
- The PDD Ordinance requires that the development demonstrate how the adopted International Building Code will be exceeded in the following categories: safety, sound, sustainability. A description was submitted to demonstrate how the Building Code would be exceeded and Ladue Building Official, Paul Garlock completed a review, which is attached to this report.
- The PDD requires an estimate of the likely phasing indicating the approximate dates when construction of the PD District may be expected to begin and be completed. This was submitted with the packet.
- Another required item includes the general outline of intended organizational structure related to PD District owner's association including covenants and restrictions, or other mechanism established for funding and maintenance.
 - A Declaration of Covenants, Easements, and Restrictions was submitted. This document will need further review and discussion to ensure that future maintenance of the development, including the trail and other elements are addressed.
 - The ordinance specifies that the trail must be publicly accessible and a written agreement must be developed that outlines maintenance responsibilities. This will need to be addressed further.

ZONING AND PLANNING RECOMMENDATION

The Zoning and Planning Commission held three public meetings to hear presentations and public comment about this development. The first meeting on 5/27/26 provided an overview of the development. A second meeting on 6/10/26 focused on stormwater and flooding issues. The third and final meeting was on 6/22/26 and included presentations by the developer's and the City's traffic engineers.

According to the Ordinance, the Zoning and Planning Commission was tasked with evaluating the consistency of the proposed development with the requirements and standards in the PDD regulations (Section XI of the Zoning Ordinance), as well as the impact the requested rezoning and General Development Plan would have on the health, safety, and general welfare of the City residents of the area, including the effect on:

1. Traffic in the streets;
2. Municipal services and expenditures;
3. Character of the district and property values in the area; and
4. General suitability of the subject property in question for the proposed PD District.

The Zoning and Planning Commission voted to recommend denial of this General Development Plan/ PDD rezoning application by a vote of five (6) in favor and zero (0) opposed. One Commission member did not vote on the application.

CITY COUNCIL DECISION

The PDD Ordinance states the following:

Upon receipt of Zoning and Planning Commission's recommendation or after the expiration of the allowed time period, the City Council shall hold a public hearing to review the General Development Plan and rezoning request. The City Council shall also review the Zoning and Planning Commission's recommendation and ARB recommendation, and may either approve, approve with conditions, or deny the General Development Plan and rezoning.

Attachments:

- Ladue Fire Department memo and initial comments
- Ladue Police Department memo
- Report by Paul Garlock regarding safety, sound, and sustainability of mixed-use building
- Floodplain review by HR Green (5/19 and 6/18)
- Initial stormwater comments from Ladue Stormwater Engineer, Steve Stumpf
- Stormwater memo from Steve Stumpf
- Memo from Steve Stumpf regarding effects on the stream buffer
- Traffic study peer review by CBB
- Landscape review comments
- ARB comments and recommendations
 - Mixed-use structure
 - May 7th – Conditional approval granted with comments
 - Minutes from May 21st work session
 - Overall plan and site concept
 - May 21st – Conditional approval granted with comments
 - Villas
 - May 21st – Villa plans were discussed and a continuance was granted with comments
 - June 10th – Work session was held with ARB and resulted in additional comments
 - May 27th – Report from Fred Goebel regarding the status of ARB Review at that time



LADUE FIRE DEPARTMENT

Office of the Fire Chief

9213 Clayton Road
St. Louis, MO 63124
314-993-0181

Honorable Mayor Spewak

Re: Planned Development District – Rock Hill Quarry Redevelopment

6/22/2026 – Update to Fire Department Operational Impact Assessment – General Development Plan Review

This memorandum is intended to provide an update regarding the operational impacts to the Fire Department as they relate to the current review of the General Development Plan.

In the original memorandum dated January 10, 2026, it was outlined in detail how the Fire Department can adequately absorb the additional service demands associated with this proposed development. Based on the current review, it remains the opinion of the Fire Department that the existing response plan, supported by the regional mutual aid system, will continue to provide an appropriate level of fire and emergency medical services to this development.

However, after reviewing the proposed building design and overall structure height, the Fire Department recommends that future consideration be given to increasing the Department's planned quint apparatus specification from a 75-foot aerial ladder to a 100-foot aerial ladder. This recommendation is intended solely as a long-term operational consideration to enhance access and firefighting capabilities for taller structures that may be constructed within the community.

This recommendation should not be construed as a condition, requirement, or impediment to the approval of the proposed development. The Fire Department remains confident that current response capabilities and mutual aid resources are sufficient to effectively serve the development as proposed.

Respectfully,

Steven E. Lynn, MPA, EFO
Fire Chief
City of Ladue Fire Department

Re: Planned Development District – Rock Hill Quarry Redevelopment

Original Memo Dated 1/10/2026

This memorandum outlines the standard operating responses associated with a multi-story residential development and describes the anticipated operational impacts on the City of Ladue Fire Department. As with any single-family residence, commercial structure, or multi-story complex, the City of Ladue Fire Department—working in coordination with its mutual aid partners—is fully prepared to respond and provide a high level of emergency service.

The City of Ladue and surrounding fire departments operate under the State of Missouri Mutual Aid Agreement, which allows for the shared use of personnel and equipment during emergency operations. Through this agreement and the implementation of established standard operating procedures, the development of this nature would be supported by adequate staffing and appropriate resources for all anticipated incidents.

The following is a brief overview of common call types within the City of Ladue and the corresponding personnel and apparatus that would typically be dispatched.

Emergency Response Standards

**As stated above, the response standards outlined below are achieved through the mutual aid system established in St. Louis County under the Missouri Statewide Mutual Aid System. The shared use of personnel and specialized equipment through this system provides operational efficiencies and a significant financial advantage for all participating departments.*

- **Fire Alarm:**
2 Engines, 1 Ladder Truck, 1 Chief Officer
- **First Alarm Structure Fire:**
4 Engines, 2 Ladder Trucks, 2 Ambulances, 3 Chief Officers
- **Elevator Rescue:**
2 Engines, 1 Chief Officer
(Upgrade to a technical rescue response with additional units as necessary)
- **Medical Call – Minor:**
1 Ambulance
- **Medical Call – Serious:**
1 Ambulance, 1 Engine, 1 Chief Officer

The Ladue Fire Department maintains strong working relationships with surrounding agencies and is confident that an effective and timely response can be achieved for this development.

Future Considerations

Based on the proposed development, the following considerations may warrant evaluation in the future:

- **Conversion of an Engine Company to a Ladder Truck (Quint):**
The current replacement cycle for the next fire engine is scheduled for 2034. This replacement would present an opportunity to convert one of the existing engines into a quint apparatus. A quint combines the capabilities of both an engine and a ladder truck into a single unit, offering enhanced operational versatility. This includes fire suppression, elevated master stream operations, technical rescue functions, and aerial access reaching heights of up to 75 feet.

While this proposed development presents operational considerations, the City of Ladue Fire Department and its mutual aid partners believe that the property and its residents can be well protected under the current response model. The consideration of engine conversion to a quint outlined above is not intended to impede this development, but rather to inform decision-makers and the public of potential future considerations.

Please feel free to contact me with any questions or concerns. I welcome the opportunity to participate further in this discussion.

Respectfully,

A handwritten signature in black ink, appearing to read 'SE Lynn', written in a cursive style.

Steven E. Lynn, MPA, EFO
Fire Chief
City of Ladue Fire Department

LADUE FIRE DEPARTMENT
Office of the Assistant Fire Chief
9213 Clayton Road
St. Louis, MO 63124
314-993-0181

May 14th, 2026

Below are my comments for the McKnight Rd. proposed mixed use project review:

Single Family (11) portion:

1. This portion accessed off Old Warson Road looks good with fire hydrants and street width of 26-foot and a turnaround that appears to comply with the 2021 IFC Appendix D.

Villa (31) portion:

1. This portion shows three fire hydrants on the western section, but I don't see any shown on the remaining.
2. What is the street width of the access points off Litzsinger Road?
3. The width of 26-foot is shown for the street in which the residential structures face which meets requirements.

Mixed-Use Development portion:

1. I don't see any hydrant info for the mixed-use portion. Show locations.
2. They will also need to factor in the fire department connection (FDC) for a sprinkler system that meets the requirements for distance to a fire hydrant. We require the sprinkler connection to be a minimum of 40-foot and a maximum of 100-foot from the hydrant. They also are required to provide a post indicator valve (PIV).
3. What are the street widths around the mixed-use building?
4. How will the 2021 IFC Appendix D105.3 section for proximity to building be met with regards to aerial apparatus access. One of the access roads is required to be a minimum of 15-foot but a maximum of 30-foot parallel to the entire side of the building.

The hydrants that are shown for all three components are listed as "private hydrants". I'm assuming this is standard language and these will be public hydrants through Missouri American Water? We are not allowed to inspect/flow hydrants that are private and that must be done annually by a 3rd party contractor with reports submitted to the FD which will add additional expense.

The buildings will be reviewed when they submit for IFC/IRC/IBC compliance.

Assistant Chief Jeff Johnson

INTEROFFICE MEMORANDUM

TO: MAYOR NANCY SPEWAK
CC: ANNE LAMITOLA, SENIOR DIRECTOR OF PUBLIC SERVICES & ANDREA SUKANEK, CITY PLANNER
FROM: KEN ANDRESKI, JR, CHIEF OF POLICE
SUBJECT: PLANNED DEVELOPMENT DISTRICT / LAW ENFORCEMENT VIEW
DATE: 6/29/2026

June 29, 2026, Update

Reference the original PDD memo dated January 6, 2026, and after reviewing additional documents to include the Lochmueller Group's Traffic Impact Study dated May 1, 2026, we share the following thoughts.

While our day-to-day patrol activity may not change much with the Planned Development District, we encourage further research into improvements that would potentially help ease congestion on McKnight Road, south of I-64. The southbound lane of McKnight Road is used by patrol officers to access the many neighborhoods south of I-64, as well as providing access to Litzsinger Road and Old Warson Road. Conversely, the northbound lane of McKnight Road, south of I-64, is used for patrol officers to return to the area north of I-64. The congestion experienced in both directions of McKnight Road makes it difficult to navigate throughout the day, specifically during peak hours. This congestion already impacts both emergency and non-emergency response times and the PDD will add a number of new residents of driving age, which will likely further escalate congestion. The Traffic Impact Study identifies several potential improvements, which we encourage further consideration of as their implementation should help improve first responder response times.

Thank you for considering the impact a potential large-scale development could have toward law enforcement's efforts to provide safety and security throughout the city. The dedicated men and women of the Ladue Police Department are committed to excellence in law enforcement and are dedicated to the people, and traditions of our city. Our daily actions demonstrate our dedication to making this city one of the most desirable residential communities in the country. We take great pride in delivering outstanding, respectful and compassionate police protection to our residents and visitors alike.

The Planned Development District (PDD) at the current Rock Hill Quarry location would produce a notable increase in population, which could dictate a restructuring of our current patrol districts. However, a change of this magnitude would also be predicated by a shift in call volume (calls for service). Additionally, our current district alignment follows the boundaries of the city's three wards, which is determined by the reported population during the census. We would strongly consider a change in alignment if the boundaries were shifted due to the change in population.

In the interim, we do not foresee any consequential changes in our day-to-day activity. Of course, we would increase the visibility of patrol in the area, while labeling the PDD as a dedicated assignment each shift. We would continue to encourage open communication between officers, citizens, management, and developers to build and sustain community partnerships and trust, while continuing to train to respond to structures and emergencies of all types.

As part of our community engagement, we would encourage safety and security assistance from the developers in the form of adding License Plate Reading (LPR) cameras to ingress and egress locations, increase lighting as it fits within the city code, encourage the use of alarms on inhabitable structures, as well as other surveillance technology to help prevent or investigate crime.

Our highly trained officers are here to provide unparalleled service to our community, and we look forward to partnering with the residents of any new development to accomplish that goal.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Ken Andreski, Jr.', written over the typed name.

Ken Andreski, Jr
Chief of Police

Memo

To: Andrea Sukanek, City Planner
From: Paul Garlock, Building Official
Date: May 20, 2026
Re: PDD Submittal - Requirement J.(3)d.iv.- Submittal Comments

This memorandum captures my comments from the preliminary review of the PDD submittal list requirement J.(3)d.iv. *“Is the IBC exceeded for safety, sounds, sustainability?”* The narrative supplied by the architect Arcturis is copied below with my comments immediately following each section.

1. **Safety** - The proposed mixed-use development has been designed to exceed baseline code requirements through a layered approach to life safety, security, and occupant well-being. These enhancements improve both daily usability and emergency performance, resulting in safer and more resilient building.
 - a. **Enhanced Egress Capacity** The building provides an increased number of exits beyond minimum code requirements, reducing travel distances and improving evacuation efficiency.
 - b. **Elevator Redundancy and Accessibility** Elevator count exceeds minimum requirements, improving accessibility, reducing wait times, and providing operational redundancy.
 - c. **Controlled Access Systems** Card reader access is integrated at key entry points, limiting unauthorized access and enhancing resident and tenant security.
 - d. **Wider Circulation Paths** Corridor and egress widths exceed minimum code requirements, allowing for more comfortable daily use and more efficient movement during emergency events.
 - e. **Enhanced Fire Protection System** The building will be fully sprinklered in accordance with National Fire Protection Association Standard NFPA 13, which exceeds the more limited NFPA 13R system typically permitted for residential occupancies, providing a higher level of fire suppression and life safety performance.

Ladue Comments - The preliminary floor plan provided appears to have opportunity for several exits that would exceed the code minimums. This can be verified once a more developed life safety plan is submitted for review. The life safety plans will show how the elevator count exceeds code minimums. The travel distance should not exceed 150' to an elevator and at least one elevator per 75 dwelling units should be supplied. Proper application of a code compliant access control system can greatly enhance building security. The supplied plans appear to have generous corridors that should exceed code minimum requirements. This is a 5-story building which will require an NFPA 13

system (2021 IFC) so I would not consider this a point that exceeds code minimums; however, an NFPA 13 system offers very robust life safety protection and will serve the building well.

2. **Sound** - Acoustic performance has been intentionally elevated beyond minimum code standards to improve occupant comfort, privacy, and overall quality of living. The project exceeds required Sound Transmission Class (STC) ratings across all major assemblies.
 - a. **Demising Walls (Unit-to-Unit)**
 - i. Designed to achieve an STC rating of 59 (exceeds code minimum of 50)
 - b. **Corridor Walls**
 - i. Designed to achieve an STC rating of 51 (exceeds code minimum of 50)
 - c. **Floor-Ceiling Assemblies**
 - i. Designed to achieve an STC rating of 60 (exceeds code minimum of 50)

Ladue Comments – The stated minimum STC 50 rating is accurate. For reference, STC 50 means that normal speech will be blocked, and loud speech cannot be understood, but a low muffled sound might be detected. STC 59/60 blocks roughly twice the sound energy as STC 50. STC 60 is typically utilized in high-end home theaters, commercial recording studios, and separation between medical exam rooms where privacy is mandatory. The corridor walls having an STC 51 are a negligible improvement to the required STC 50. The 1dB increase in protection is not discernable to the human ear. It should be noted that IBC compliance uses laboratory STC for approval of assemblies but does not require field testing to confirm installed performance. This distinction creates a compliance gap. It is common for field sound transmission class (FSTC) values to be 3-7 dB lower than laboratory STC because flanking transmission through structural connections, penetrations, and adjacent assemblies is included. It would be helpful to incorporate field testing protocols to ensure the claimed performance is achieved.

The floor/ceiling assembly must also comply with 2021 IBC Sec. 1206.3 Structure-borne sound. This requires an impact insulation classification (IIC) of not less than 50. IIC ratings are more challenging because impact noise is transmitted structurally, and standard floor assemblies without floating elements often test at IIC 40-45. I would like more information on the translation of a claimed STC 60 to the required IIC 50 rating.

Another potential issue with sound transmission involves plumbing that extends through the building (soil stacks, etc.) What measures will be taken to address the sounds that could potentially transmit between tenants and floors?

3. **Sustainability** -The project integrates a series of site, material, and environmental strategies to improve long-term performance, reduce resource consumption, and enhance occupant health. These measures reflect a practical and durable approach to sustainability.

Ladue Comments – The nine categories listed in this section contain a few elements that are code requirements, stormwater management, energy use, and indoor air quality for example. Specific examples of enhancements to minimum code requirements are not made for us to comment on. In general terms the bulk of the items listed can be classified as 'best practices' that point to a well-planned project. The items/practices listed parallels what we typically see incorporated into the high end 'estate' properties currently being added to Ladue.

May 19, 2026

Mr. Stephen Stumpf, PE
City of Ladue
Stormwater Engineering Manager
9345 Clayton Road
Ladue, MO 63124

Re: Review of Hydraulic Modeling for CLOMR for Redevelopment of Rock Hill Quarry

Dear Mr. Stumpf:

Introduction and Summary

As you requested regarding the Rock Hill Quarries redevelopment, we have evaluated whether a proposed redevelopment project can be *certified* by the City as *keeping structures reasonably safe from flooding* and whether a Conditional Letter of Map Revision (CLOMR) is required. Further, you requested our observations and recommendations regarding other stormwater handling at the Rock Hill Quarry redevelopment site.

T-V Acquisition LLC (developer) has requested the certification to support a CLOMR application for part of Deer Creek. The developer submitted a report and HEC-RAS model to support the City's certification:

- Rock Hills Quarries – Flood Study for Deer Creek dated March 19, 2026;
- HEC-RAS model that accompanied the report;
- The study and model were prepared by Stock & Associates.

The City's certification is not an attestation that the submitted documents are sufficient for FEMA's review. The certification is only an acknowledgment that the proposed redevelopment depicted in the grading documents and hydraulic computations will likely not cause flooding of structures at or near the subject site.

We have the following observations and recommendations regarding conditions in Ladue.

- Submitted plans and computations show that the City would be justified in certifying that the basement and first floors will be *reasonably safe from flooding*.
- Other stormwater concerns are summarized below:
 - The base flood elevation (BFE, 100-year water surface elevation) would be lowered in the subject site.
 - The velocity in the channel will increase gradually within the subject site up to 2.6 fps during the 1 percent annual exceedance probability storm (AEP or 100-year). The increased velocity is only within the redevelopment project, and the velocity increases gradually peaking near Rock Hill Road. Ladue code does not allow velocity increase. The developer would need a variance. Creek bank protection is included in the developer's plans.
 - Plans show that building pads are at least 3 feet higher than the 100-year base flood elevation which provides more than the code required 1 foot of freeboard even if the basements are walk-out.
 - The grading around each detention basins is higher than the BFE so detention basins are protected from extreme high water of the creek.
 - A floodplain development permit will be required for the subject project.

We have the following observations regarding downstream impacts:

- The subject project will *not* raise the downstream water surface elevation higher.
- The subject project will *not* increase the downstream velocity.

The following information discusses our evaluation of the hydrologic and hydraulic data submitted by the developer.

Evaluation

The developer evaluated three sets of data to establish a current effective hydraulic model as a base line:

- HEC-2 data,
- LOMR 23-07-0790P dated 5/2/24,
- Proposed Flood Insurance Study (FIS).

Duplicate Effective Model.

The original HEC-2 data has been superseded by LOMR 23-07-0790P. The recently proposed FIS indicates that the water surface elevation (WSE) would be lower than the LOMR WSE. The developer chose to use the LOMR elevations as the most conservative and appropriate. We agree that the LOMR is most conservative. That is, the higher base flood elevation (BFE) shown in the LOMR would justify higher and safer building pads at the redevelopment site.

The WSE of the developer's duplicate effective model is within 0.5 ft of the LOMR profile for the 1 percent Annual Probability of Exceedance (AEP) storm (also known as 100-year storm). A tolerance of 0.5 ft is accepted by FEMA. We evaluated key factors to check the developer's submittal:

- Flow rate for the 1 percent AEP storm matched the FIS (2015. Table 7. Page 29) for the reach *within* the project area.
- The report did not explain the hydrologic methods used to determine the flow rate for the short reach upstream of the subject site. However, that upstream flow rate seems to be extrapolated from flow rates published in the FIS (2015. Table 7. Page 29). Our test of the model indicated that the WSE in the subject site is nearly *insensitive* to that upstream flow rate. For example, if conservative flow rates are used upstream, the WSE changes are small: 0.01 ft to 0.04 ft – much less than the freeboard of the building pads.
- Roughness coefficients (Mannings n) that were used are 0.1 to 0.8 for overbank and 0.4 to 0.45 for channels. These coefficients matched the range published in the Flood Insurance Study (2015. Table 9 on page 57).
- Expansion and contraction coefficients used were 0.3 and 0.5 near bridges and 0.1 and 0.3 elsewhere: typical and widely used coefficients.
- Depressions and blocked channels were isolated by ineffective flow areas.
- Although the developer's model did not consider the cones of contraction and expansion at the bridges, our test indicated that the WSE is *insensitive* to the use of cones of contraction and expansion and corresponding ineffective areas.
- The duplicate effective base model was used to prepare the existing and proposed conditions models.

Existing Conditions Model.

The developer incorporated recent aerial topography into an existing conditions model. The topographic changes that are below the BFE are small.

Proposed Conditions Model.

The proposed condition fills most of the floodway. Most of the floodway is on the left bank, the north bank. The right bank is already high and consists mostly of landfill and landfill cap that is much higher than the BFE. The floodplain changes are detailed below.

- On the north side of Deer Creek, building pads are created by filling much of the wide floodway.
 - The building pads will be accessed through two streets:
 - Off Litzinger Road just west of Park Lane – a new street;

- Off Litzinger Road through continued use of Rock Hill Road.
- The building pads will be at least 3 ft above the BFE. Code requires 1 ft of freeboard.
- The northern edge of the floodplain is not filled and becomes floodplain fringe rather than floodway.
- The north edge of the floodplain fringe remains unchanged. It is appropriate for the model to show the north fringe as ineffective flow area – a depressed area.
- The floodway is made narrower and lies between the creek and proposed development.
- On the south side of the creek, building pads will be created by filling the fringe and narrow floodway.
 - Access will be through continued use of a driveway off McKnight Road.
 - The building pad will be about five ft above the BFE.
- The proposed floodplain is narrower than the existing floodplain. Therefore, proposed velocities will be higher than existing velocities. The plans do show channel protection such as rock toe protection and vegetative armor. The developer may seek a variance for the higher velocities.

Recommendations

To support a CLOMR application, the City of Ladue is justified to certify that the proposed Rock Hills Quarries project will *keep structures reasonably safe from flooding*. The certification would be based on the submitted plans dated May 1, 2026, and the corresponding HEC-RAS model named 7700.2FS-CLOMR prepared under the direction and sealed by George Stock, PE.

A CLOMR is required for the proposed Rock Hill Quarries project because the floodway and floodplain extents are being changed even though the BFE will not be raised.

In addition to a CLOMR application, the subject project is required to submit a floodplain development permit application.

Sincerely,

HR Green, Inc.



Garry Aronberg, PE, CFM
Senior Engineer – Water Resources
garonberg@hrgreen.com
636-812-4208 Direct

\\hrgreen.com\HRG\Data\2024\2402210\Design\Calc\WO8-RockHillQuarryCLOMR\Review\doc_20260519_ExpandedRockHillQuarryLOMRCertReview.docx

June 18, 2026

Mr. Stephen Stumpf, PE
City of Ladue
Stormwater Engineering Manager
9345 Clayton Road
Ladue, MO 63124

Re: Review of June 2026 Revised Hydraulic Modeling for CLOMR for Redevelopment of Rock Hill Quarry

Dear Mr. Stumpf:

Introduction and Summary

As you requested regarding the Rock Hill Quarries redevelopment, we have evaluated a revised hydraulic model and whether the proposed project would keep the proposed residential and existing residential structures reasonably safe from flooding. Further, you requested our observations regarding velocities in the creek.

The developer submitted a report and HEC-RAS model to support the City's certification. The resubmittal is dated June 5, 2026. The study and model were prepared by Stock and Associates.

We have the following observations and recommendations regarding conditions in Ladue.

- The revised plans and computations show that the City would be justified in certifying that the proposed residential and nearby existing residential buildings would be reasonably safe from flooding.
- The model is a steady state model, and a non-steady state model may show slightly different results – the non-steady state model evaluates storage in the reach.
- Other stormwater concerns are summarized below:
 - The base flood elevation (BFE, 100-year water surface elevation) would be lowered in the subject site.
 - Similar to our evaluation of the March model, the velocity in the channel will increase gradually within the subject site up to 2.6 feet per second (fps) during the 1 percent annual exceedance probability storm (AEP or 100-year). *The increased velocity is only within the redevelopment project*, and the velocity increases gradually, peaking near Rock Hill Road. Ladue code does not allow velocity increase. The developer would need a variance. Creek bank protection is included in the developer's plans.
 - Plans show that building pads are at least 3 feet (ft) higher than the 100-year base flood elevation which provides more than the code required 1 foot of freeboard even if the basements are walk-out.
 - The grading around each detention basin is higher than the BFE, so detention basins are protected from extreme high water of the creek.
 - A floodplain development permit will be required for the subject project.

We have the following observations regarding downstream impacts:

- The steady state model shows that the subject project will *not* raise the downstream water surface elevation higher.
- The steady state model shows that the subject project will *not* increase the downstream velocity.
- Non-steady state model may show different results. (A non-steady state model considers storage in the conveyance channel and fluctuations in flow rate caused by in-channel storage.)

The following information discusses our evaluation of the hydrologic and hydraulic data submitted by the developer.

Evaluation

The developer evaluated three sets of data to establish a current effective hydraulic model as a base line:

- HEC-2 data,
- LOMR 23-07-0790P dated 5/2/24,
- Preliminary Flood Insurance Study (FIS).

Duplicate Effective Model.

The original HEC-2 data has been superseded by LOMR 23-07-0790P. The recently proposed FIS indicates that the water surface elevation (WSE) would be lower than the LOMR WSE. The developer chose to use the LOMR elevations as the most conservative and appropriate. We agree that the LOMR is most conservative. That is, the higher base flood elevation (BFE) shown in the LOMR would justify higher and safer building pads at the redevelopment site.

The WSE of the developer's duplicate effective model is within 0.5 ft of the LOMR profile for the 1 percent Annual Probability of Exceedance (AEP) storm (also known as 100-year storm). A tolerance of 0.5 ft is accepted by FEMA. We evaluated key factors to check the developer's submittal:

- Flow rate for the 1 percent AEP storm matched the FIS (2015. Table 7. Page 29) for the reach *within* the project area.
- The report did not explain the hydrologic methods used to determine the flow rate for the short reach upstream of the subject site. However, that upstream flow rate seems to be extrapolated from flow rates published in the FIS (2015. Table 7. Page 29). Our test of the model indicated that the WSE in the subject site is nearly *insensitive* to that upstream flow rate. For example, if conservative flow rates are used upstream, the WSE changes are small: 0.01 ft to 0.04 ft – much less than the freeboard of the building pads.
- Roughness coefficients (Mannings n) that were used are 0.1 to 0.8 for overbank and 0.4 to 0.45 for channels. These coefficients matched the range published in the Flood Insurance Study (2015. Table 9 on page 57).
- Expansion and contraction coefficients used were 0.3 and 0.5 near bridges and 0.1 and 0.3 elsewhere: typical and widely used coefficients.
- Depressions and blocked channels were isolated by ineffective flow areas.
- Although the developer's model did not consider the cones of contraction and expansion at the bridges, our test indicated that the WSE is *insensitive* to the use of cones of contraction and expansion and corresponding ineffective areas.
- The duplicate effective base model was used to prepare the existing and proposed conditions models.

Existing Conditions Model.

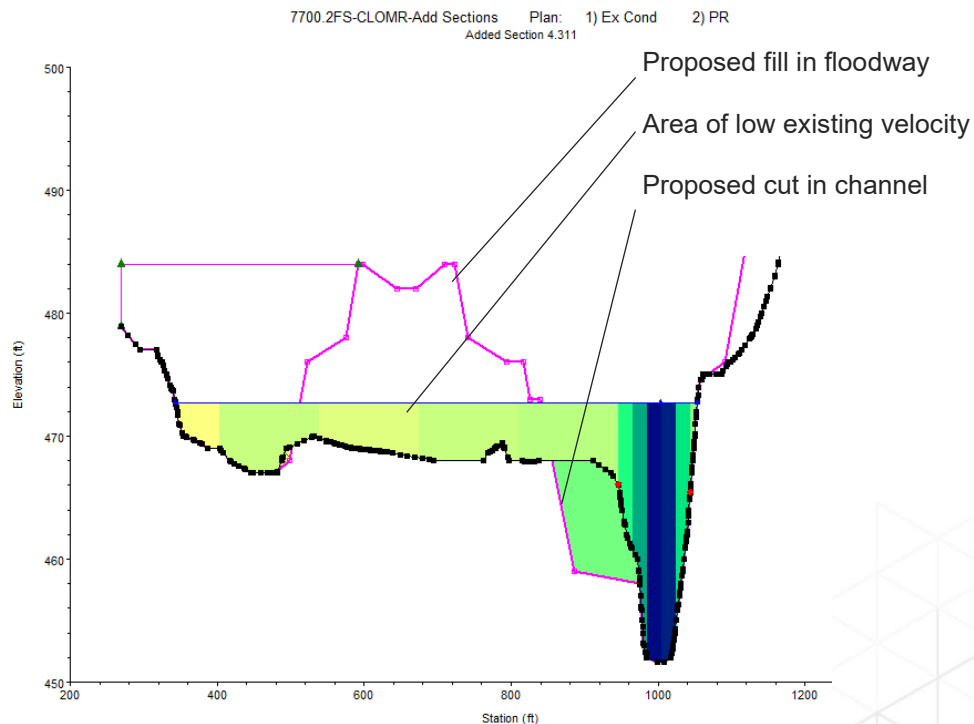
The developer incorporated recent aerial topography into an existing conditions model. The topographic changes that are below the BFE are small.

Proposed Conditions Model.

The proposed condition fills most of the floodway. Most of the floodway is on the left bank, the north bank. The right bank is already high and consists mostly of landfill and landfill cap that is much higher than the BFE. The floodplain changes are detailed below.

- On the north side of Deer Creek, building pads are created by filling much of the wide floodway.
 - The building pads will be accessed through two streets:
 - Off Litzinger Road just west of Park Lane – a new street;
 - Off Litzinger Road through continued use of Rock Hill Road.

- The building pads will be at least 3 ft above the BFE. Code requires 1 ft of freeboard.
- The northern edge of the floodplain is not filled and becomes floodplain fringe rather than floodway.
- The north edge of the floodplain fringe remains unchanged. It is appropriate for the model to show the north fringe as ineffective flow area – a depressed area.
- The floodway is made narrower and lies between the creek and proposed development.
- On the south side of the creek, building pads will be created by filling the fringe and narrow floodway.
 - Access will be through continued use of a driveway off McKnight Road.
 - The building pad will be about 5 ft above the BFE.
- The Stock model selected appropriate friction factors for the proposed conditions, but we evaluated the sensitivity of the overbank friction factors.
 - We found that the selected conservative friction factors are appropriate for rough conditions.
 - Our analysis determined that even if smoother factors had been chosen, the proposed water surface elevation would be lower than existing conditions.
- The proposed floodplain is narrower than the existing floodplain. Therefore, proposed velocities will be higher than existing velocities. The plans do show channel protection such as rock toe protection and vegetative armor. The developer may seek a variance for the higher velocities.
- Comparison of existing and proposed cross sections indicate that the project will fill mostly shallow ineffective flow areas but widen the channel. Please see the adjacent diagram taken from the model.



Recommendations

Obtain a non-steady state model to complement the steady state model to confirm that the City of Ladue is justified to certify that the proposed Rock Hills Quarries project will *keep structures reasonably safe from flooding*.

A CLOMR is required for the proposed Rock Hill Quarries project because the floodway and floodplain extents are being changed even though the BFE will not be raised.

In addition to a CLOMR application, the subject project is required to submit a floodplain development permit application.

Sincerely,

HR Green, Inc.



Garry Aronberg, PE, CFM
Senior Engineer – Water Resources
garonberg@hrgreen.com
636-812-4208 Direct

\\hrgreen.com\HRG\Data\2024\2402210\Design\Calc\WO8-RockHillQuarryCLOMR\Review\doc_20260618_ExpandedRockHillQuarryLOMRCertReview.docx

Initial staff comments by Ladue Stormwater Engineer, Steve Stumpf, about stream buffer, stormwater, and flooding (from 5/20)

Stormwater Management Review:

- The proposed plans generally conform to the City of Ladue's stormwater management plan. Detailed calculations will need to be provided with future submittals.
- Need to ensure positive drainage along the northside of the development. Grades appear to be nearly flat with the Ameren substation being at the highpoint. Natural drainage from the substation to the east does not have an obvious outfall location. Rockhill Rd to the north does not appear to have a culvert to convey water.
- Need to submit plans to MSD for their review and approval.
- Pipe outfalls need to be checked for scour protection needs, especially outfalls into the creek.

How is the proposed bank stabilization on the south side of the creek along the landfill site proposed? Creek crossings will need to be included in the application to USACE.

- Flood Study Comments:
 - Provide documentation of the hydrologic methods used to determine the flow rate for the short upstream reach of the site.
 - Provide the Annotated FIRM showing the revised boundary delineated of the base floodplain, the 0.2 percent annual chance floodplain, and the regulatory floodway. Be sure to show how it ties in to the effective FIRM.
 - Provide Permits of other regulatory agencies showing approval for the work. Specifically show the USACE permitting application including the disturbance below the OHW mark for toe and bank protection.

MEMORANDUM

June 5, 2026

To: Ladue Zoning and Planning Members

Re: Stormwater Impacts – Rock Hill Quarry Development

Executive Summary

This memorandum provides a high-level technical overview of stormwater as it pertains to development review within the City of Ladue, specifically, the redevelopment of the former Rock Hill Quarry (RHQ) site. The technical overview addresses general stormwater topics and how they pertain to the proposed development by T-V Acquisitions.

The RHQ redevelopment site has two primary categories of stormwater relevant to planning decisions:

1. Localized overland flow and site drainage conveyed through engineered systems
2. Deer Creek and its role as a regional watershed conveyance system

Understanding the differences between these systems, what they are, who owns them, and who regulates them is critical for informed zoning and site plan decisions.

1. Localized Overland Flow and Site Drainage Conveyance

Localized stormwater runoff originates as precipitation that falls directly on a development site and its immediate surroundings. This runoff initially travels as overland flow, moving across pervious and impervious surfaces until it infiltrates the surface, or is captured by a stormwater conveyance system, such as:

- Inlets and curb openings
- Storm sewers and pipes
- Swales and roadside ditches
- Detention/retention basins

These systems are to be designed to safely collect, convey, and discharge runoff while minimizing flooding and erosion impacts. Two primary agencies regulate site drainage to help ensure systems are designed correctly; City of Ladue and Metropolitan St. Louis Sewer District (MSD). Both agencies are co-permit holders of the Missouri Department of Natural Resources (MoDNR) implementing the National Pollutant Discharge Elimination System (NPDES). The two agencies have similar, and sometimes, overlapping regulations for site development.



The City of Ladue Ordinances and codes are set up to keep the community safe and reduce negative impacts from surface stormwater. Ordinance includes both regulations for stormwater during a construction project, and for on-going stormwater maintenance.

Key Considerations by City of Ladue:

- Prevent increases in downstream peak runoff rates and volumes
- Ensure adequate detention and water quality treatment
- Maintain proper drainage patterns to avoid impacts to neighboring properties
- Define long-term maintenance responsibilities

Review of the stormwater conveyance is done with fully developed civil drawings with hydrologic and hydraulic calculations of the proposed site. At the preliminary review level, a general overview of the site is reviewed for general conveyance and inclusion of water quality and detention features.

For the current PDD level of detail of the RHQ proposed site, the plans show generally how stormwater will flow and be conveyed during a rain event. Detention basins are shown for the purposes of water quality and detention. Future submittals will be required to provide detailed civil drawings with calculations to comply with City codes and ordinances.

2. Deer Creek (Major Watershed Conveyance System)

Deer Creek is a regional watercourse that conveys stormwater from a large upstream watershed through multiple municipalities, including Ladue. Unlike site runoff, Deer Creek is not generated by a single development but instead represents cumulative flows from:

- Upstream developed and undeveloped areas
- Tributary streams and storm sewer systems
- Regional rainfall events affecting the entire watershed

During storm events, flows in Deer Creek can increase significantly, resulting in flooding conditions that extend beyond the influence of any individual site. Much like the land surrounding Deer Creek, the creek itself is owned by the property owners as the creek runs through private property. Deer Creek is not owned by the City of Ladue, nor MSD. However, Deer Creek is regulated by multiple agencies due to its regional and environmental significance:

- Federal Emergency Management Agency (FEMA)
 - Administers the National Flood Insurance Program (NFIP)
 - Maps floodplains and establishes Base Flood Elevations (BFEs)
 - Requires local enforcement of floodplain development standards
 - Administered by the City of Ladue
- U.S. Army Corps of Engineers (USACE)



- Regulates impacts to “Waters of the United States” under Section 404 of the Clean Water Act (e.g., channel modifications, fill placement)
- Missouri Department of Natural Resources (MDNR)
 - Oversees water quality and permitting related to stream impacts
 - Administered by City of Ladue and Metropolitan St. Louis Sewer District (MSD)
- Metropolitan St. Louis Sewer District (MSD)
 - Plays a significant role in regional stormwater management and watershed planning
 - Has jurisdiction over certain improvements or studies within the Deer Creek watershed
- City of Ladue
 - Enforces local floodplain regulations consistent with FEMA requirements
 - Reviews development for impacts to flood conveyance and storage

Key Considerations by City of Ladue:

- Floodplain encroachment and FEMA compliance
- Impacts to flood storage and conveyance capacity
- Upstream and downstream flooding risks
- Coordination across agencies

T-V Acquisitions proposes to redevelop the RHQ site, located at Lot A of 1200 North Rock Hill Road, through a Planned Development District (PDD). The site is bisected by Deer Creek and includes areas mapped by FEMA as floodplain, including designated floodway. In addition to FEMA mapping, the presence and extent of flooding along Deer Creek are well documented by observed flood events and feedback from adjacent property owners, particularly to the north of the site.

To make the site developable and reduce flood risk to the proposed improvements, the applicant proposes to raise portions of the site through the placement of engineered, compacted fill. The intent is to elevate finished grades above anticipated flood levels.

Because the proposed work involves placement of fill within both the floodplain and floodway, the developer must demonstrate compliance with applicable federal and local requirements. Specifically, the project must show that the proposed grading:

- Does not increase base flood elevations (a “no-rise” condition), and
- Does not increase flow velocities, consistent with City of Ladue standards

To evaluate these impacts, the developer’s engineer, Stock and Associates Consulting Engineers, Inc., submitted a hydraulic model using HEC-RAS (Hydrologic Engineering Center – River Analysis System), developed by the U.S. Army Corps of Engineers. HEC-RAS is the industry-standard tool used to simulate how water moves through a river or stream channel and its floodplain during storm events. The model represents the creek, overbank

areas, and structures (such as bridges) using surveyed cross-sections and engineering assumptions. It then calculates key hydraulic parameters, including:

- Water surface elevations (flood levels)
- Flow velocities (speed of water movement)
- Flow distribution between the channel and overbank areas

For this project, the model is used to compare existing conditions (current site and creek geometry) with proposed conditions (including fill placement and bridge removal). This “before-and-after” comparison allows engineers and the City to determine whether the proposed project meets regulatory requirements

No-Rise Condition / No Velocity Increase

The proposed improvements are located within the FEMA-regulated floodway, where development standards are most restrictive. Both FEMA and the City of Ladue require that any encroachment within the floodway result in no increase in base flood elevations (no-rise condition). In addition, the City of Ladue has adopted a more conservative regulation requiring that projects also not increase flow velocities, due to the localized risks associated with faster-moving water. Lower water is good, but slower water is safer for protecting property, infrastructure, and the stability of Deer Creek over time.

The results of the HEC-RAS model showed the water surface elevation of the project site will be lowered by the proposed work. This is primarily accomplished by the removal of a bridge that acts as a restriction. Opening the restriction allows the water to flow more easily through the site. However, the velocity of the water increased through the project site. The City of Ladue issued a denial letter to the developer, and the developer is in the process of seeking a variance to the rule.

In review of the modeling data, the increased velocities are contained completely within the project limits. Velocities remain unchanged both upstream and downstream of the project. The developer and their design team have implemented mitigation measures to protect the stability of Deer Creek from the increased velocities.

Increased velocities equate to increased strength within the water to pick up and carry larger material. As a result, higher velocities increase the potential for erosion and streambank instability if not properly managed. Several engineered solutions are available to reduce the erosive risk and strengthen Deer Creek. Mitigation factors proposed by the design team include a combination of hard armoring (rock riprap) and vegetated reinforcement.

While large riprap provides a robust and reliable method of resisting erosion, it can have limitations from an ecological and aesthetic standpoint when used extensively. The T-V Acquisitions engineering team evaluated the specific locations where velocity increases

occur and tailored mitigation measures accordingly. In areas where velocities are moderate and conditions are suitable, vegetated reinforcement systems are proposed to provide sufficient resistance while preserving a more natural streambank condition. In higher-velocity areas where additional protection is necessary, appropriately sized riprap is incorporated to ensure long-term stability. This targeted approach minimizes the extent of hard armoring while maintaining effective erosion protection, resulting in a design that addresses hydraulic performance while also supporting ecological function and visual character along Deer Creek.

FEMA Conditional Letter of Map Revision (CLOMR) & Letter of Map Revision (LOMR)

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which establishes both flood risk mapping and minimum regulatory standards for development in flood-prone areas. FEMA produces Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs), commonly referred to as the “100-year floodplain” (1% annual chance flood), as well as Base Flood Elevations (BFEs), which represent the expected water surface elevation during the base flood event. FIRMs also delineate floodways, defined as the portion of the floodplain required to convey floodwaters without causing increases in flood elevations. Within the City of Ladue, Deer Creek and its tributaries are mapped and regulated under this framework.

To maintain participation in the NFIP and preserve residents’ access to federally backed flood insurance, the City of Ladue is required to regulate development within mapped floodplains, enforce elevation and floodproofing standards, and prevent activities that increase flood risk to adjacent or downstream properties. These responsibilities are implemented through the City’s adopted floodplain management ordinance and are applied during development review.

When proposed development results in changes to mapped floodplain conditions, FEMA review may be required through the Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) processes. A CLOMR is FEMA’s pre-construction review of a proposed project and is typically required when a development would increase Base Flood Elevations, modify the floodway, or significantly alter floodplain geometry. The purpose of a CLOMR is to confirm that the proposed project complies with FEMA standards before construction begins, providing assurance to both the City and the developer. From a planning perspective, projects requiring a CLOMR are considered high-impact, as they involve detailed hydraulic modeling, coordination with multiple agencies, and longer, more complex approval timelines.

Following construction, a Letter of Map Revision (LOMR) may be required to formally update FEMA’s mapping. A LOMR reflects as-built conditions and is necessary when floodplain boundaries, BFEs, or floodway limits have been altered. This process establishes revised flood risk information, which can affect property designations, insurance requirements, and future development constraints. In most cases, projects that require a CLOMR will also require a LOMR, and completion of this process should be a condition of project approval. Failure to obtain a LOMR can result in regulatory inconsistencies and potential long-term liability for both the property owner and the City.

Important to recognize that while a Letter of Map Revision (LOMR) formally updates FEMA's floodplain mapping, the ability to challenge or modify that determination is limited and largely dependent on technical justification. The most effective opportunity to address concerns occurs before FEMA approval, during the City's review and any CLOMR process, where assumptions, modeling inputs, and projected impacts can be evaluated and, if necessary, revised. Once a LOMR is issued, affected property owners or the City may request reconsideration only by submitting new or more accurate engineering data demonstrating that the mapping is incorrect.

This means that for the RHQ site, any concerns regarding floodplain impacts to adjacent properties, particularly upstream and downstream effects along Deer Creek, must be carefully vetted during the current review process, as post-approval changes become more difficult, time-consuming, and uncertain.

The City contracted with on-call stormwater engineering firm HR Green to review the technical data presented by Stock and Associates. HR Green's review letter concluded that the City would be justified in certifying the basements and first floors will be reasonably safe from flooding. A copy of the letter is attached.

U.S. Army Corps of Engineers (USACE) Section 404 Permitting

The proposed RHQ redevelopment includes work within and adjacent to Deer Creek, which is considered a "Water of the United States" under the Clean Water Act. As a result, certain project elements, particularly those involving placement of fill, bank modification, or changes to the channel, may be subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act.

Section 404 permitting is required when a project proposes to discharge dredged or fill material into jurisdictional waters, including streams, wetlands, and their adjacent areas. For the RHQ project, this is most relevant to the proposed placement of fill within the floodplain and floodway, as well as the associated grading and bank stabilization along Deer Creek.

The USACE review process focuses on avoiding and minimizing impacts to aquatic resources and ensuring that any unavoidable impacts are properly mitigated. Key considerations include:

- Impacts to stream channel and floodplain function, including conveyance and storage
- Loss of aquatic habitat, including effects on vegetation, wildlife, and stream ecology
- Changes to flow patterns, including potential erosion or sediment transport downstream
- Alternatives analysis, demonstrating that the proposed design is the least impactful practicable option

Depending on the scope of impacts, the project may qualify for a Nationwide Permit (NWP) for smaller, standardized activities, or may require an Individual Permit, which involves a more detailed review, public notice, and longer approval timeline.

For the RHQ redevelopment, Section 404 permitting represents a critical consideration because it evaluates not only flooding impacts, but also how the project affects the physical, ecological, and hydraulic function of Deer Creek. While there are no proposed channel modifications to Deer Creek, the project is removing a bridge crossing necessitating a 404 permit, and proposing extensive streambank stabilization also necessitating a 404 permit. The USACE will ultimately decide whether the proposed work will require a NWP or an Individual Permit.

Conclusion

The proposed RHQ redevelopment highlights the complexity of evaluating stormwater impacts where site-level design and regional systems intersect. While localized drainage associated with the development can be addressed through established City and MSD standards during subsequent design phases, the project's interaction with Deer Creek and its mapped floodplain introduces significantly greater regulatory, hydraulic, and long-term risk considerations.

T-V Acquisitions' analysis demonstrates that the project can achieve a no-rise condition in flood elevations, largely through removal of an existing hydraulic restriction. However, the modeling also indicates an increase in flow velocities within the project limits, which does not meet the City of Ladue's more stringent requirement intended to minimize erosion, channel instability, and potential long-term impacts.

As part of its evaluation, the City of Ladue exercised extensive due diligence by engaging its on-call stormwater engineering consultant, HR Green, to perform an independent technical review of the applicant's hydraulic modeling and supporting data. HR Green, a firm with specialized expertise in stormwater and floodplain analysis, conducted a detailed assessment of the HEC-RAS model, assumptions, and results. Their review provides additional confidence in the understanding of flood elevations and confirms that the proposed building elevations can be considered reasonably safe from flooding. At the same time, the City's review process, including both internal analysis and third-party expertise, has evaluated velocity impacts and associated risks are fully understood and appropriately considered as part of the decision-making process.

Additionally, the proposed project triggers multiple layers of regulatory oversight, including FEMA floodplain requirements, CLOMR/LOMR processes, and USACE Section 404 permitting, each of which evaluates different aspects of risk, compliance, and environmental impact. These processes are interrelated but independent, and approval under one framework does not ensure approval under another. The need for coordination among agencies further adds to the project's complexity and timeline.

In summary, the RHQ redevelopment is not solely a site design issue, it is a watershed-level consideration. Thoughtful evaluation of both the hydraulic analysis and regulatory implications are essential to ensuring that any approved development remains compliant, resilient, and protective of the surrounding community over the long term.



Respectfully Submitted,

Stephen Stumpf, PE, CFM
Stormwater Engineering Manager
City of Ladue, Missouri
9345 Clayton Road
St. Louis, MO 63124
(314) 993-5665 ext. 1307
sstumpf@cityofladue-mo.gov

Attached: Review of Hydraulic Modeling for CLOMR for Redevelopment of Rock Hill Quarry – HR Green;
dated May 19, 2026

**CITY OF
LADUE**

Public Works

To: Andrea Sukanek
City Planner

From: Stephen Stumpf, PE, CFM
Stormwater Engineering Manager

Date: June 18, 2026

Subject: Comments on Rock Hill Quarry Stream Buffer Narrative

Stream Buffer Protection is described in City Ordinance Chapter 110 under Article IV – Land Disturbance. Further, the PDD submission adds further requirements for the site.

Comments of the T-V Stream Buffer Narrative Submission:

1. The review could only be partially completed. Submit a site plan indicating the existing top of bank. Show the 50ft stream buffer and the additional 25ft setback on which impervious surfaces are prohibited
 - a. The top of bank is a topographic break in slope of the creek bank to the flatter uplands or historic floodplain. This is different than the Ordinary High Water Mark (OHWM).
2. Provide a description of all proposed land development within the buffer and setback. Including a narrative of any earthmoving activities.
3. Submit how the bank below the OHWM is being protected by the increase in velocities.
4. The grading plan show extensive cut along the creek at, or slightly above the OHWM.
 - a. Grading, filling, and earthmoving shall be minimized within the buffer. Submit how the proposed extensive grading fits within the buffer ordinance.
 - b. The mass excavation appears to conflict with the tree canopy marked out to remain in place in the same locations. Clarify the discrepancy.
 - c. The planting plan does not address the restoration of the proposed floodplain.
 - d. The removal of trees and replanting plan shall require City approval as required in Chapter 102 of the Ladue Code of Ordinances.
5. The geotechnical report dated March 2026 indicates a poor growth medium of lean clay within the newly created floodplain. Indicate how the proposed plan establishes vegetative cover within the stream buffer.
6. The Streambank buffer narrative needs to be more specific, especially related to stream

health, erosion, and vegetation within the stream buffer. The toe of the bank is not discussed, and specifics of the floodplain bench need to be addressed.

- a. Item 1 – Need specifics as the vegetation/ restoration plan does not address the stream buffer area. The stream buffer consists mostly of the newly proposed floodplain bench.
 - b. Item 3 – Need to address the toe of the stream bank and the floodplain bench.
 - c. Item 4 – Proposed measures address the embankment, but not the streambank toe or floodplain bench.
 - d. Item 5 – The buffer area consist primarily of lean clays after earth moving and not conducive to infiltration. The bioretention banks address urban runoff, but not the health and intention of the stream buffer.
 - e. Item 7 – The vegetated slopes appear to be outside the 50ft stream buffer for much of the project site. Address Item 7 on the basis on the stream health within the buffer.
 - f. Item 8 – Willow stakes are not a substitute for a tree canopy. Restoration plan may be required to include trees with inclusion of some trees with larger DBH caliper.
 - g. Item 9 – Need to be more specific with your solution.
 - h. Item 11 – Bioretention basins address greenspace in an urban setting and is not the same as greenspace generated by a stream buffer. Need to address the item in reference to the stream buffer.
7. All buffer and setback areas must be recorded on the final plat of the property following plan approval. A note to reference the vegetated buffer shall state: "There shall be no clearing, grading, construction or disturbance of vegetation except as permitted by Stream Buffer Protection Ordinance 1951".



Peer Review: Rock Hill Quarry TIS (TIS Report Dated May 1, 2026)

Date: May 20, 2026

To: Anne Lamitola, PE – City of Ladue

From: Ashley Kaltenbronn, P.E., PTOE, PTP
Lee Cannon, P.E., PTOE

CBB Job Number: 035-26-7

Project: On-Call Traffic Engineering Services
Work Order #7 – Peer Review: Rock Hill Quarry TIS
Ladue, Missouri

In accordance with your request, CBB has performed a peer review of Lochmueller Group's (LG) "Rock Hill Quarries Traffic Impact Study" dated May 1, 2026. In this review, CBB provides our professional opinions regarding the LG Traffic Impact Study (TIS) and provides additional feedback for further consideration of the site's access and traffic mitigation plan.

The purpose of CBB's review was to determine the adequacy and accuracy of the TIS based on data documented in the LG report with respect to industry standard methodologies and the City of Ladue's need for information. This memorandum reviews the TIS report, current site plan, traffic count data, recommendations, and electronic Synchro 11 files submitted to the City of Ladue. No specific traffic counts or observations were collected as part of CBB's review effort. However, an independent field visit was performed to understand the existing conditions near the proposed site.

As mentioned in LG's TIS, CBB previously completed a "McKnight Road Corridor Study" in 2019. Also in 2019, LG completed a TIS titled "Proposed Rock Hill Quarry Development Traffic Impact Study" with different land uses proposed on the current site that was similarly peer reviewed by CBB. Through previous studies, CBB and LG are both very familiar with the traffic conditions and concerns in the study area.

LG completed a Technical Memorandum dated March 11, 2026, that outlined trip generation estimates, directional distribution assumptions, growth rates to be used, and analysis scenarios to be evaluated as the basis of this TIS. These assumptions were reviewed by St. Louis County



DOT and CBB (on behalf of the City of Ladue) at the start of the study process to share feedback and reach general consensus of the assumptions for this study.

It is worthwhile to note that, between engineers, each assumption used in the analysis could be debated; however, CBB attempted to focus only on substantive issues. Generally, CBB considered if the assumptions used in the report and conclusions were within a reasonable range or met expectations based on our industry standards and knowledge of typical local practices. We also considered whether or not any differences in opinion for the assumptions or interpretation of the calculations/evaluations would have a meaningful effect on the outcomes/recommendations reported in the findings and conclusions.

Technical Review of LG Traffic Impact Study

Overall, the study follows industry standard methodologies and best practices recommended by ITE and typical methods implemented locally. We offer the following feedback for the City's consideration.

General Assumptions

Study Area, Study Periods, Trip Generation, Trip Distributions, & Analysis Scenarios

The study area intersections were identified in the virtual scoping meeting held February 10, 2026, with the City and County DOT. CBB believes the study area is appropriate for a development of this scale. The weekday AM and PM peak hours are the typical timeframes addressed in a traffic impact study. Considering the proposed development consists of residential and retail uses, the weekday commuter AM and PM peak hours are appropriate for this study. The analysis scenarios in this study also reflect the requests from both agencies to evaluate the 2026 Existing conditions, 2029 opening year conditions, and 2049 forecasted design year conditions.

Previously mentioned in CBB's review of the LG Technical Memorandum, the trip generation estimates appear to be in accordance with generally accepted industry best practices. The directional distribution assumptions appear reasonable based on the recent traffic counts, proposed land uses, and existing development patterns.

As shown in Table 11 of the LG TIS, this proposed development is anticipated to generate significantly less trips compared to the previously proposed development studied in 2019 for this site. This proposed development is expected to generate approximately 64% of the trips in the AM and 45% of the trips in the PM compared to the previously proposed development, creating a total of 143 trips in the weekday AM peak hour and 226 trips in the weekday PM peak hour. As indicated in Table 11, the proposed development mostly includes land uses that are relatively low trip generators. The proposed development will also replace the existing/former uses and trips generated by McCarthy and the landfill operations as detailed in Table 12, which will create a smaller magnitude of trips added to the roadway system (+48 total trips in the AM peak hour and +141 total trips in the PM peak hour). The additional trips are mostly expected to exacerbate existing concerns along McKnight Road rather than create new traffic issues in the corridor.



Proposed Site Plan and Site Access

For the purposes of the report, it would be beneficial to provide an additional figure that clearly depicts the proposed access driveways and their corresponding working names (i.e. Single-Family Access A, Multi-use Access A, etc.). Although the text describes the location of the driveways, a figure with these labels would enhance clarity and avoid any misinterpretations of the evaluations or recommendations for those who cannot access the electronic Synchro files for a clear picture of the driveway labels.

South Single-Family Housing Access

In the study, the South Single-Family Housing Access is proposed on Old Warson Road approximately 180-ft west of Warson Place and recommended by LG with all-way STOP control. Since there is a curve on Old Warson Road to the west of the proposed intersection, vehicles traveling from Kortwright Avenue to continue eastbound on Old Warson Road would have limited visibility of any stopped vehicles at the intersection. Creating a driveway at the location proposed has created a sight distance issue. All-way stop control is not warranted by volumes but might be one alternative to mitigate the sight distance issue. CBB recommends this location be investigated further to consider if the driveway could be moved further east or west or if a sight distance easement on the property at the southeast corner of the curve could be obtained to clear any obstructions around the curve. If the all-way stop control alternative is determined to be the best solution given the existing constraints, CBB recommends this configuration includes “Stop Ahead” signage to warn drivers of an immediate stop just beyond the curve.

North Single-Family Housing Access (A, B and C)

For a residential area with 40 single-family homes, providing at least two access points to serve the residential area is reasonable for the purposes of emergency response access. Given the limited number of vehicles entering and exiting between all three proposed access points, providing a third driveway has limited benefits to the area it serves. However, Rock Hill Road (Access B) and the North Single-Family Housing Access C are existing connections which have flooding concerns. We understand that proposed North Single-Family Housing Access A on Litzsinger Road is proposed as the only flood-free entrance.

On Litzsinger Road, the North Single-Family Access A does not meet standard intersection sight distance based on existing field measurements included in the LG TIS. LG documented that vegetation is the primary restriction; however, some vegetation may be located on adjacent private properties. The City could be asked to encourage removal of vegetation with homeowners that obstruct sight distance on their adjacent private properties.

Although field measurements for sight distance were not collected at the existing intersection of Litzsinger Road and Rock Hill Road (proposed Access B), CBB believes vegetation may need to be removed at this location as well to provide adequate sight distance. From our observations in the field, overgrown vegetation obstructed driver views at this driveway. LG should investigate further.



Based on the sight distance measurements in the LG TIS, the North Single-Family Access C meets intersection sight distance industry standards. Given the close proximity of this access opposite Golden Gate Road to the north (approximately 160-ft centerline to centerline) and the existing church driveway in between, there is the potential for safety conflicts between the movements entering and exiting each of the closely spaced driveways. Restricting access of particular movements could be considered at this location for better access management along McKnight Road. Very few vehicles were assumed to utilize this driveway in the study, and any restricted movements at this driveway could be completed through the signalized intersection of Litzsinger Road and McKnight Road. Based on the total site-generated trips (Figure 11 in LG's TIS), the proposed North Single-Family homes are anticipated to generate zero left-turn trips and only 2 vph right-turn trips during each peak hour. The northbound left-turn movement has zero trips in the AM peak hour and 3 trips during the PM peak hour. The southbound right-turn movement was assigned 1 trip in the AM peak hour and 2 trips during the PM peak hour.

Mixed-Use Access (A and B)

At Mixed-Use Access A on McKnight Road, CBB agrees sight distance is an existing issue due to overgrown vegetation and fencing on the site as stated on pages 35 and 36 of the LG TIS. CBB believes if the vegetation and fencing on the site are removed or pulled back further into the site, desirable sight distance could possibly be achieved despite existing fencing and barrier wall on the bridge over Deer Creek. If the existing barrier on the bridge meets typical design standards, the barrier should be at a height that allows drivers to see over it. The chain link fence may or may not continue to restrict sight distance.

From an access management perspective, it would be best to have Mixed-Use Access A aligned across from McKnight Crossing Court as a four-legged intersection. CBB recommends the civil engineer investigate a 3-D view of the sightlines for this access location to determine if the bridge barrier wall poses sight distance issues once the vegetation and other obstructions are removed before eliminating the option to realign this driveway further north. If it is determined this driveway cannot be shifted further north due to sight distance constraints, CBB recommends that this driveway be offset from the existing McKnight Crossing Court driveway to meet St. Louis County standards for clear separation of those two intersections. CBB typically considers 150-ft as a minimum guideline for consideration; however, McKnight Road is a County road, and the required offset will be determined by St. Louis County.

If neither alternative to relocate this driveway above is an option, movements that do not meet sight distance requirements could be restricted at this location (left-turn out and/or right-turn out). Mixed-Use Access B at Old Warson Road can accommodate traffic from any restricted movements at the second access via the proposed signalized intersection of Old Warson Road and McKnight Road.

At the Mixed-Use Access B and Old Warson Road intersection, CBB agrees a 4-legged intersection with only three approaches required to stop under existing conditions is typically not ideal for driver understanding and can create safety concerns. This unsignalized intersection is proposed



as an all-way stop; however, it's close proximity to the proposed signalized intersection of Old Warson Road at McKnight Road could create queues with only about 300-ft of storage space between the signal and the stop bar for the vehicles traveling westbound on Old Warson Road. The LG study indicated a roundabout was considered for continuous flow of vehicles but was not proposed due to limited right-of-way. CBB would like to see additional consideration at this location to determine if the LG recommendation is the best alternative for this driveway.

Access Management on McKnight Road

An effective access management plan is critical to minimize the number of conflict points between vehicles and pedestrians, to reduce crashes, and to improve roadway capacity and overall function by controlling access to the transportation network. The North-Single Family Access C and Mixed-Use A driveways on McKnight Road have unique challenges with existing constraints mentioned above; however, both of those areas of development benefit from other driveways which have connections to signalized intersections on McKnight Road. The North Single-Family area is proposed to have two driveways on Litzsinger Road, which joins McKnight Road at a signalized intersection to serve all turning movements. The proposed traffic signal at the Old Warson Road and McKnight Road intersection can serve all movements accessing the Mixed-Use area of the development should any movements be restricted at the Mixed-Use Access A driveway.

Site Generated Trips and Auxiliary Turn Lane Warrants

When reviewing the 2029 Forecasted and 2049 Forecasted traffic volumes, CBB noticed the turning movements at the proposed driveways on McKnight Road at the North Single-Family Access C and Mixed-Use Access A included the site-generated trips for the proposed development and the existing trips generated by the Castle Construction and McCarthy Construction storage sites. CBB would typically subtract the existing trips from the current land uses and only consider the site-generated trips at the proposed development entering and exiting these driveways.

CBB reviewed the auxiliary turn lane warrants considering the turning movement volumes to only reflect the site-generated trips of the proposed development at the driveways on McKnight Road. Regardless of the difference in volumes, a northbound left-turn lane at the Mixed-Use Access A still meets warrants based on PM peak hour volumes if that proposed driveway movement remains.

Based only on the site-generated trips from Figure 11, the northbound left-turn volumes at North Single-Family Access C are lower than the left-turn volumes on the warrant nomograph and technically wouldn't warrant a left-turn lane. However, a difference of a few trips in the PM peak hour would warrant that northbound left-turn lane due to the significant opposing volumes. Should this proposed driveway movement remain, CBB concurs that a northbound left-turn lane (or the proposed TWLTL) is appropriate at this location.



CBB also reviewed the auxiliary turn lane warrants for the southbound right-turn lane on McKnight Road at Mixed-Use Access A and concur that it does meeting warrants for a separate right-turn lane at that driveway. However, the location of the bridge is a physical constraint. If the entrance stays where it is, the right-turn lane will be shorter than typical standard length. Alternatively, if the entrance moves opposite McKnight Crossing Court, the bridge does not appear to be wide enough to accommodate a new southbound right-turn lane without widening.

Signal Warrants

CBB concurs with the recommendation to signalize the intersection of Old Warson Road at McKnight Road prior to the opening of the proposed development. A decision to coordinate the signal with others along McKnight Road should be further investigated with the County. The Signal Timing Manual (NCHRP Report 812) recommends signals typically within one-half mile of each other can benefit from coordination. This intersection is approximately 1,900-ft (0.4 miles) from Litzinger Road and 1,600-ft (0.3 miles) from Manchester Road. CBB recommends that physical interconnect be considered between the new signal and both adjacent signals, to the north and south.

Recommendations for Existing Conditions

As mentioned in the LG TIS, CBB previously provided recommendations within the study area as part of a “McKnight Road Corridor Study” in 2019. Under existing conditions, the intersection of McKnight Road at York Drive/Lindworth Drive still experiences long queues and poor levels of service during the peak hours regardless of the proposed development build-out. As mentioned in the LG study, LG concurs with CBB’s 2019 recommendations to alleviate the existing congestion on McKnight Road. It is strongly recommended to reconsider improvements along McKnight Road.

Other Recommendations

On page viii in the LG Executive Summary, CBB recommends mentioning that Appendix C provides a concept plan of improvements (Figure 31). Outside of the Table of Contents and the Appendix, the only mention of this drawing is on page 52. This concept drawing helps clearly depict some of the recommendations and would be a great asset to mention in a few other locations in the report when the list of recommendations along McKnight are discussed.

At the proposed signalized intersection of Old Warson Road and McKnight Road, CBB recommends extending the proposed road diet south of the intersection to avoid suddenly dropping the second lane as a de facto left-turn lane. One potential alternative is to stripe a northbound left-turn lane according to design standards followed by a TWLTL to the south to accommodate vehicles turning into the driveways to a few individual homes mainly on the west side (about 600-ft south of the Old Warson Road intersection). South of the TWLTL, the two northbound lanes could taper into one northbound lane north of Manchester Road. Ultimately, the configuration of this proposed improvement will be determined by St. Louis County.



Pedestrian Recommendations

CBB supports recommendations to build sidewalks along the frontage of the proposed site to promote safety and connectivity for pedestrians. During CBB's field visit, we observed some existing sidewalks along McKnight Road in need of repair. For example, a manhole cover near the existing McCarthy entrance was sticking upwards. Any opportunity to repair damaged pedestrian facilities intended to serve the proposed development should be considered. CBB recommends that LG complete a sidewalk audit identifying existing conditions and any existing facilities in need of repair or replacement for the areas which they abut.

CBB also concurs with the recommendation to build crosswalks at the proposed signalized intersection at Old Warson Road and McKnight Road. All corners where a crosswalk is proposed should be upgraded and designed with accessible curb ramps, pedestrian clam shell indications, and pedestrian push buttons to meet current PROWAG, MUTCD, and County standards. Continental style crossings are preferred for better visibility. If pedestrian crossings are desired at midblock locations, continental style crossings and Rectangular Rapid Flashing Beacons (RRFB) are preferred.

We trust that you will find the information presented in this review memo useful. Should there be any remaining questions or comments, please contact Ashley Kaltenbronn, PE, PTOE, PTP at 618-978-9817 or akaltenbronn@cbbtraffic.com and/or Lee Cannon, PE, PTOE at 314-308-6547 or Lcannon@cbbtraffic.com.

Landscape review comments

McKnight Villas

- 1) The substation is a very prominent facility and its presence impacts perception of all the homes of the development. There is minimal room to provide a landscape screen around the fence and retaining wall. A tall decorative fencing system in addition to vertical plantings are needed to downplay the negative impacts of facility from the whole development and from the home to the west.
- 2) Provide a landscape screen at the back of the homes and the access drive to the substation or use GrassPave2 at the access drive to allow for continuous lawn to be established.
- 3) Potential to provide seating at the end of the cul-de-sac at a creek overlook.
- 4) Clarify if the existing berm and trees can be preserved on the north side of the homes.
- 5) Address the ordinance related to park or garden space shall be provided for the use of residents. This may include landscaped trails, water features, pocket parks with shade trees, gardens, lawns, dog parks and facilities, outdoor seating areas, recreational areas, and similar outdoor amenities.
- 6) Provide a dense planted buffer and entrance landscape along McKnight Road – to be further defined as SIP phase.
- 7) Provide connectivity to mixed use development and plan for the full future path network through the whole development.
- 8) Opportunity for a common space between home #24 and #25 and integration with the creek path – extend the path between the buildings for access by neighbors.
- 9) Opportunity to integrate the creek path along the creek with the BMP design such as crossing with boardwalks.
- 10) Opportunity for path to go down the slope and connect to existing foot bridge on the west of the site.
- 11) Provide information about the finish of the BMP basins including the side slopes and bottom of the basins to avoid unsightly facilities behind the homes.
- 12) Clarify if guardrail will be used in any locations on the site. Provide a decorative guardrail that contributes to the quality design aesthetic for the development. – Can be further addressed during SIP.
- 13) Will all landscaping be submitted for the villa lots during the SIP stage or will landscaping be addressed during the Building Permit submittal for each lot?
- 14) Should the trail connect directly to McKnight?

McKnight Mixed Use

- 1) A detailed landscape plan will be required at the SIP phase.
- 2) Provide open space, landscaping, walking paths, and areas for outdoor seating/gathering around the building. Other amenities, such as a dog park, outdoor kitchen, fire pit, or recreation amenities are encouraged per ordinance.
- 3) Enhance the BMPs on the site to be landscape features in addition to stormwater facilities. This can be further defined at SIP phase.
- 4) Provide a continuous sidewalk along McKnight Road.
- 5) Provide connectivity to the creek path and plan for the full future path network through the whole development.

Old Warson Single-Family

- 1) Provide information about the finish of the BMP basins including the side slopes and bottom of the basins to avoid unsightly facilities behind the homes.
- 2) Each home will have its own landscape requirements and review process as Building Permits are reviewed. Home site landscaping will be addressed in that process.
- 3) Provide a sidewalk along Old Warson and connect the neighborhood into the sidewalk system to avoid sidewalks to nowhere.
- 4) Provide connectivity to the creek path network and plan for future paths through the whole development. Opportunity for paths on the south side of the creek – future pedestrian connectivity to restaurant/retail/trail

COMMENTARY

At a regularly scheduled meeting of the Architectural Review Board (ARB) of the City of Ladue held on May 7, 2026, action was taken to grant **CONDITIONAL APPROVAL** to T-V Acquisitions LLC for a building located on Lot A3 of Lot A – Rock Hill Quarries Plat 2.

Applicant representatives provided a project overview of the PDD and metrics of the proposed multi-family, multi-use building. The architect provided a design overview of concepts guiding the design and materials selections. The project civil engineer clarified relations between the adjacent Deer Creek, floor elevations, and overall site grading.

The Multi-Family, Multi-Use building was determined by the ARB to substantively comply with provisions of the City of Ladue ARB Guidelines, provided that the applicant initiate design adjustments to the following conditions discussed at the meeting. A motion was made, seconded and the ARB voted unanimously to grant **CONDITIONAL APPROVAL**.

CONDITIONS NOTED BY ARB

1. Long continuous lines of the top of building parapet is inconsistent with ARB Guidelines. Relieve, and interrupt with building elements creating projections and offsets to break the linear character.
2. Top floor penthouse canopies indicated are desirable and offer potential to relieve the façade linear character. Integrate and align with masonry elements below.
3. Simplify exterior materials palette, consider elimination of ES-1 panels in favor of proposed vertical metal panels. Indicate other materials consolidation.
4. No exposed fasteners such as screws, nails, or bolts on exposed panel surfaces. Use concealed, protected systems.
5. Integrate expanded brick detailing such as soldier and rowlock masonry courses to retain residential scale brick surfaces.
 - a. Re-consider singular free-standing masonry columns at primary building corners in favor of wrapped terrace elements.
 - b. Add masonry design detailing relief on north building fascia planes (above retail spaces).
 - c. Brick types of BR-1 and BR-2 are noted to be similar in tone, although the design concept suggests a preferred significant color difference intended. Provide brick sample panels.
6. Demonstrate effective screening of rooftop mechanical equipment. Include sightlines from northern enclosed courtyard to rooftops.
7. Limit parking facility top floor level lighting to the adjacent building perimeter height. Contain all lighting within this level.
8. Illustrate exterior perimeter site lighting concept adjacent to building.

9. Interior northern courtyard vertical surfaces should echo the other exterior materials, detailing and design concepts as other building surfaces.
10. Consider other balcony and terrace facings and railings such as decorative stamped or perforated metal or composite fascias with integrated glass and metal railings.
 - a. Enhance exterior appearance and provide visual screening to lower portions of the exterior balconies.
 - b. Indicate balcony soffit materials, acceptable materials are durable metal extrusions, or composite materials.
 - c. Indicate terrace drainage appearance on balcony which does not discharge to lower balconies.
11. Provide materials information describing the retaining wall surfaces at the drive entry retail, and at the southwest area facing residential units.
12. Consider addition of fabric canopy extensions at the front retail areas providing elements of color, adaptable to change over time with an eye to pedestrian interest.
13. Provide on-grade terrace and patio site surfacing consistent with ARB Guidelines, avoiding plain white concrete.
14. Provide design information related to exterior appearance of project garage doors.
15. Provide blow-up detailing of proposed window surrounds on those windows indicated to receive them.
 - a. Indicate materials proposed for window systems by type, metal, composite, wood clad, etc.
 - b. Spandrels between floor level at windows to be metal, not wood composite.
16. Include floor plans for all floor levels of the building. Larger scale ground floor plans with use descriptions are requested to describe service access and exterior impacts on appearance.
 - a. Indicate which, if any ground level units will have direct exterior access doors, stoops, terraces, or other exterior improvements.
17. Provide civil engineering sheet C4.3 referenced during our meeting to include site grade elevations in immediate vicinity of the multi-family, multi-use building.
18. Provide generous size samples (approximately 2x3 feet) of all exterior materials for ARB viewing at Ladue City Hall.
19. Provide general information and design concepts related to exterior provisions for utility entrances and metering which appear onsite, at roofs or on exterior building surfaces.

END

WORK SESSION MEETING MINUTES

An in-person work session of the Ladue ARB was held on May 21, 2026, with representatives T-V Acquisitions LLC for a building located on Lot A3 of Lot A – Rock Hill Quarries Plat 2. The purpose of the session was to afford the applicants for the Multi-Family Multi-Use Building the opportunity to discuss and propose design adjustments of conditions associated with ARB action taken on the application at its meeting on May 7, 2026

DISCUSSION POINTS [Addressing Conditional Approval]

1. **The applicants presented an overview of building amenities and features of the project through the additional floor plans provided at this meeting.**
2. Long continuous lines of the top of building parapet is inconsistent with ARB Guidelines. Relieve, and interrupt with building elements creating projections and offsets to break the linear character. **This effort is in process of consideration and development by the applicant.**
3. Simplify exterior materials palette, consider elimination of ES-1 panels in favor of proposed vertical metal panels. Indicate other materials consolidation. **The proposed material continues on the building, no resolution.**
4. Integrate expanded brick detailing such as soldier and rowlock masonry courses to retain residential scale brick surfaces. **Design effort is underway to address this condition; drawings do not yet indicate proposed design.**
 - a. Re-consider singular free-standing masonry columns at primary building corners in favor of wrapped terrace elements. **Design effort is underway to address this condition; drawings do not indicate proposed design.**
 - b. Add masonry design detailing relief on north building fascia planes (above retail spaces). **Design effort is underway to address this condition; drawings do not indicate proposed design. The extent of masonry over the top floor window on the four-story northern portion has been reduced, relieving the mass.**
 - c. Brick types of BR-1 and BR-2 are noted to be similar in tone, although the design concept suggests a preferred significant color difference intended. Provide brick sample panels. **Samples of the brick have been requested, no details provided.**
5. Demonstrate effective screening of rooftop mechanical equipment. Include sightlines from northern enclosed courtyard to rooftops. **No drawings provided to illustrate sightlines.**
 - a. **South portion of the building, fifth floor has currently a view over the lower north portion, with a view to the HVAC units.**
 - b. **Provide illustration of the view from the affected fifth floor units over the north roof area.**
 - c. **All HVAC units and other roof features will be visible. That's not acceptable.**

6. Interior northern courtyard vertical surfaces should echo the other exterior materials, detailing and design concepts as other building surfaces. **Ground floor level is brick faced, all other levels above are vertical panel siding. This is not consistent with ARB comments made.**
 - a. **All north section roof drainage is vertical downspouts running full height into the courtyard, becoming a dominant feature of the design.**
 - b. **No offsets or other materials consistent with the exteriors are indicated.**
7. Provide on-grade terrace and patio site surfacing consistent with ARB Guidelines, avoiding plain white concrete. **No details or design of surfaces indicated.**
 - a. **Discussion of the developer's proposed low or high fencing at each patio.**
 - b. **ARB comments view individual fencing from 3 to 5 feet as negative from an appearance standpoint, effects on access control are questionable.**
8. Include floor plans for all floor levels of the building. Larger scale ground floor plans with use descriptions are requested to describe service access and exterior impacts on appearance. **Additional, large-scale floor plans were provided for discussion.**
 - a. Indicate which, if any ground level units will have direct exterior access doors, stoops, terraces, or other exterior improvements. **Illustrations are not updated but discussed.**

ITEMS NOT PRESENTED [Unaddressed Conditional Approval Items]

1. Top floor penthouse canopies indicated are desirable and offer potential to relieve the façade linear character. Integrate and align with masonry elements below.
2. No exposed fasteners such as screws, nails, or bolts on exposed panel surfaces. Use concealed, protected systems.
3. Integrate expanded brick detailing such as soldier and rowlock masonry courses to retain residential scale brick surfaces.
 - a. Re-consider singular free-standing masonry columns at primary building corners in favor of wrapped terrace elements.
 - b. Add masonry design detailing relief on north building fascia planes (above retail spaces).
 - c. Brick types of BR-1 and BR-2 are noted to be similar in tone, although the design concept suggests a preferred significant color difference intended. Provide brick sample panels.
4. Demonstrate effective screening of rooftop mechanical equipment. Include sightlines from northern enclosed courtyard to rooftops.
5. Limit parking facility top floor level lighting to the adjacent building perimeter height. Contain all lighting within this level.
6. Illustrate exterior perimeter site lighting concept adjacent to building.

7. Consider other balcony and terrace facings and railings such as decorative stamped or perforated metal or composite fascias with integrated glass and metal railings.
 - a. Enhance exterior appearance and provide visual screening to lower portions of the exterior balconies.
 - b. Indicate balcony soffit materials, acceptable materials are durable metal extrusions, or composite materials.
 - c. Indicate terrace drainage appearance on balcony which does not discharge to lower balconies.
8. Provide materials information describing the retaining wall surfaces at the drive entry retail, and at the southwest area facing residential units.
9. Consider addition of fabric canopy extensions at the front retail areas providing elements of color, adaptable to change over time with an eye to pedestrian interest.
10. Provide on-grade terrace and patio site surfacing consistent with ARB Guidelines, avoiding plain white concrete.
11. Provide design information related to exterior appearance of project garage doors.
12. Provide blow-up detailing of proposed window surrounds on those windows indicated to receive them.
 - a. Indicate materials proposed for window systems by type, metal, composite, wood clad, etc.
 - b. Spandrels between floor level at windows to be metal, not wood composite.
13. Provide civil engineering sheet C4.3 referenced during our meeting to include site grade elevations in immediate vicinity of the multi-family, multi-use building.
14. Provide generous size samples (approximately 2x3 feet) of all exterior materials for ARB viewing at Ladue City Hall.
15. Provide general information and design concepts related to exterior provisions for utility entrances and metering which appear onsite, at roofs or on exterior building surfaces.

At the conclusion of the work session the importance of applicant addressing all the conditions on which the approval is conditioned was emphasized. The number and extent of the in-progress conditions to be addressed remain substantial and beyond that, which can be addressed in a regular ARB bi-weekly meeting.

A follow-up work session when the applicants are prepared to offer design solutions is recommended. The ARB will await Ladue City staff notification when such session is warranted.

END

COMMENTARY

At a regularly scheduled meeting of the Architectural Review Board (ARB) of the City of Ladue held on May 21, 2026, action was taken to grant **CONDITIONAL APPROVAL** to T-V Acquisitions LLC for the general site earthwork concept of the proposed development located on Lot A of Rock Hill Quarries Plat 2.

Applicant representatives provided a project overview of earth grading concept for the PDD. The developer and civil engineer provided a design overview, storm water management concept, and general roadway overview.

The engineering designs and technical details indicated on the drawings are the subject of technical reviews by City of Ladue and other public agencies. The City of Ladue ARB Guidelines includes general aesthetic considerations for site development affecting building aesthetics and massing. It is the aesthetic impact of the site improvements to which the ARB provides review and commentary. A motion was made, seconded and the ARB voted unanimously to grant **CONDITIONAL APPROVAL**.

CONDITIONS NOTED BY ARB

1. The following comments made to the site portion identified as Lot A1, commonly referred to as The Horse Pasture (Kortwright Ave. & Old Warson Road).
 - a. Proposed lots 7 through 11 (east side of Lot 1A) indicate earthwork grading with an abrupt drop in the middle of each lot resulting in an offset to the back of homes proposed. The offset results in a walk-out lower level to rear yard.
 - i. The steep embankment to the immediate east creates an awkward condition, reducing functionality and appearance of the proposed rear yard. Consider grading adjustments which result in more useable rear yard conditions.
2. The following comments made regarding the portion identified as Lot A2, commonly identified as the Villa area (northern portion of the site, parallel to Park Lane).
 - a. The earthwork grading of the individual lots indicates an abrupt drop in the middle of each lot of approximately 7 feet. This seems extreme on the small size lots indicated.
 - i. The result will be to expose an extensive vertical rear wall of adjacent homes to view north and south without two-story relief. Not acceptable dependent on design of reverse sides of homes proposed.
 - b. The existing electrical utility substation along the north side of the proposed east-west roadway will be approximately 7 feet below the proposed elevation roadway.
 - i. The retaining wall should integrate natural materials since it will be entirely in the residential setting.

- ii. Visible screening/fencing should be provided to the equipment, if the equipment on the site produces noise, sound dampening measures should be integrated.
 - iii. The service access road along the northern boundary to Old Rock Hill Road will be retained, in a naturalized condition.
 - c. Access drive to Litzinger Road seems steep at intersection. Consider less steepness.
 - i. Height difference between adjacent homes along Litzinger Road and Park Lane is overcome utilizing a retaining wall. Consider using natural materials rather than cast concrete.
 - ii. Fencing and guardrails to the sides of the drive should retain a residential character.
 - iii. Current drainage design pitches water to the west side. Consider center crowning and storm drainage inlets on each side of the access road, consistent with other drives in the development.
 - iv. Intersection of the east-west roadway at S. McKnight Road seems very steep, consider reduction of slope.
- 3. The following comments made to the site portion identified as Lot A3, commonly referred to as Multi-Family Building (southeast quadrant, S. McKnight Road & Old Warson Road.)
 - a. The retaining walls at the southwest corner (Rock Hill Road & Old Warson Road) should be natural materials, preferably stone, with attention given to residential guard rail and fencing. The location is immediately adjacent to the ground and second floor residences proposed.
 - b. Consider development of sidewalks along the north and west landscape areas adjacent to the building to allow residents to keep off access roadways in these areas.

END

COMMENTARY

At a regularly scheduled meeting of the Architectural Review Board (ARB) of the City of Ladue held on May 21, 2026, action was taken to grant a CONTINUANCE to T-V Acquisitions LLC for the 31 homes proposed in the development located on Lot A2 of Rock Hill Quarries Plat 2.

Applicant representatives provided a project overview of several home model types proposed for the PDD. The developer and proposed builder provided a design overview of the project. Private citizen comments was offered to the overall development.

The City of Ladue ARB Guidelines includes general aesthetic considerations for residential development affecting building aesthetics and massing. Due to the extensive earlier agenda for today's meeting and the lateness of the hour, the ARB provided an overview commentary only and suggested that an in-person work session with the developer and their architect be scheduled for the week of June 1, 2026.

The ARB suggested that the design professionals review the 'City of Ladue ARB Guidelines' prior to the workshop, to be held at City of Ladue offices on Clayton Road. A motion was made, seconded and the ARB voted unanimously to grant a CONTINUANCE.

OVERVIEW OBSERVATIONS BY ARB

1. The proposed homes are too monotone and uniform single-story residences. Options for 1-1/2 story and two-story homes should be considered. The Ladue ARB Guidelines encourage customizations of design, and do not encourage the replication of home designs within neighborhoods.
 - a. Walk-out rear lower level should consider maintaining the same ceiling height to retain design flexibility and not appear as a basement.
2. The single story combined with proposed grading results in the reverse side to be flat two-story in appearance.
 - a. Illustrations of the rear of the homes presented to surrounding residences should be considered.
3. Current renderings illustrate entry doors, but do not show the homes from the garage side, provide views from that perspective.
4. Exterior materials should offer a broader selection of choice in curated samples.
5. Further discussion of the proposed theme of the development will require in-person discussion to better articulate the design concepts. How are these proposed to be traditional or contemporary in concept and execution?
6. Proposed homes in elevation present a heavy mass of roof with steep pitch. Consider reducing pitch and roof mass in proportion.
7. Carry exterior materials and design elements around to all four elevations of the homes.

- a. Detailing should be consistent, utilizing deeper offsets and articulation on all sides for consistency. Especially on the rear if walk-out lower levels are to be realized.
8. Existing conditions homes on Park Lane, north of the site will have a direct view of the rear, consideration of materials and appearance are important.
9. Consider and design exterior amenities to the homes, plan for front and rear site utilization.
10. Design expectations in the ARB Guidelines discourage layering of façade architecture of gable over gable layering.
11. Designs may consider internal lifts or elevator if serving selected residents but should not limit designs to a single floor selectively.
12. The ARB briefly referred to the over lot grading of the proposed home sites with the abrupt drop-off mid-lot as negatively impacting the home design appearance.
13. Subjects of home massing, windows, shutters, masonry, siding, and detailing will be addressed in-person as well.

END

WORK SESSION MEETING MINUTES

An in-person work session of the Ladue ARB was held on June 10, 2026, with representatives of the applicant. The purpose of the session was to afford the applicants for the proposed free-standing homes known as the Villas an opportunity to discuss and propose design adjustments in response to ARB action taken at its meeting on May 21, 2026.

APPLICANT DISCUSSION POINTS

1. The applicants indicated that intended buyers value consistency of the appearance of the development. The applicants presented 'The Conway' sample home as the discussion example of that approach for approval.
 - a. Features may be added on such as terraces, and other proposed purchaser choices.
 - b. Individual homes in their final configuration would not be displayed to the ARB for approval. This was not acceptable to the ARB.
 - c. The walk-out rear is desirable to buyers allowing the use of the ground floor on the rear.
2. The applicants indicated that no two-story or one and one-half story homes would be proposed for the development as there are not likely any buyers for these.
3. Options A, B, and C illustrated updates from the model presented at the ARB meeting on May 21, same for all three.
 - a. Limited masonry added on sides and rear.
 - b. Inclusion of rear gabled porch as a roof extension with brick piers.
 - c. Inclusion of rear raised shed-style roof.
 - d. Except for the above references, the model remains the same.
4. No further drawings or modifications were presented in response to the ARB comments of May 21.
5. Discussion of the materials followed with ARB comments as follows.

ARB MEMBER RESPONSE & DISCUSSION

1. Additional masonry is welcomed, but not extensive enough. ARB anticipated all masonry homes with limited siding materials as accessory and in some gable areas only, consistent with massing and building elements.
 - a. When siding is used, the depth of materials should reflect deeper profiles, and trim edging to create emphasis and better simulate natural wood. Additional materials such as natural copper used in limited roofing or shingled applications on vertical surfaces is encouraged in lieu of less durable painted materials.
 - b. No exposed fasteners are allowed in applications of metals materials.
2. Rear appearance of The Conway is improved with additions of components illustrated, but the unit remains too vertically abrupt and exposed to views.
 - a. Drop-off in earthwork at rear results in all lower levels displaying vertical height negatively affecting mass appearance of the group of homes proposed. Exaggerated roof steepness was again commented on creating an unnatural appearance for the small footprint and single-story residence.
3. Concern was expressed about the appearance of the views along the street as all garage doors present too strongly from one story buildings, in one viewing axis.
 - a. Request for illustrations of the composite proposed view was again made.
 - b. Concern for impersonal impression made on entry to the community.
4. Floor plans provided are too static, not suggesting variations. Are they variable, can they be adapted? Builder responses that are not typically changed but offers possibility that buyers may elect to do limited changes.

- a. Customizable features may be selected later as add-ons to the standard base units by buyers. Customizations to reduce or modify garage size may be possible within individual units. That would be later; not at this ARB review stage, determined by builder only. The approach described was not acceptable to the ARB as there are then no controls to how or why modifications are made. Review for building permit only without ARB integrated into the process is not acceptable.
5. Discussion of the ARB requirements to see fully configured home designs was resisted by the builders. The standard model home is offered with a few customizing features as ‘kit-of-parts’ or as builder proposed accessories.
 - a. This is not acceptable to the ARB. The fully designed homes with all featured and proposed design is required for each home. It would not be possible to know what design concept was followed for the buildings.
6. In response to the applicant’s materials submitted, the ARB members referred to the listing of points in the Continuance granted the applicant for un-addressed comments in Minutes from May 21, 2026. Please review these for context.
7. Applicant requested specific comments on the materials submitted at this in-person work session; ARB provides the following:
 - a. Massing places too much vertical and mass in the roof area, un-resolved. The floor plans are primarily square as proposed by the applicants which then result in difficult proportions for the roof profiles. Sketching by the ARB and applicants explored this point for consideration by the builder and their architect.
 - b. Use all masonry with incidental siding or other accent materials. Emphasis needed in residential detailing. Integration of window and door surrounds and scale on facades.
 - c. Provide attention to perspective views from areas requested, including roof massing studies and views.
 - d. Windows should reflect more diversity in size and scale unique to the development. Double hung, single height with muntin bars are common use, not addressing design context. Consider added unit, topset, casements, and limiting or modifying muntin bars.
 - i. Animate sides of residences with windows and other features.
 - e. No references to room sizes for primary residences, without options or discussion of integration of other elements and customizations such as offices, amenity spaces, elevators, or access to exterior from primary level.
 - f. Singular emphasis on one-story for residential development, does not address other levels. Lower-level walk-out has low ceiling height, unacceptable for integral use as a second primary level. Introduce additional windows and more gracious ground level access.
8. Provide materials, sample photos, and other illustrative documents displaying the range of selection.
 - a. Integrate exterior living areas and illustrate them for front, sides and rear with amenities discussed at the ARB meeting.
9. Home plans presented to this point are the commonly available builder’s floor plans produced for other regional locations, not adapted to the community in sizes or amenity spaces. Present more range of options for plans as discussed. Review scale of homes and illustrate community appearance with additional homes along the proposed street.
10. ARB specifically requires complete design drawings for the homes proposed consistent with City of Ladue submittal requirements for ARB review and consideration, illustrating all proposed features on specific lots.
 - a. The discussion with the builder clarified this requirement.

Overview of Current Status

The developers have elected to submit materials for ARB review in three parts, with an additional review of overall site improvements.

- Multi-Family Apartments – North Side (Lot A3)
- Villa residences – McKnight Frontage (Lot A2)
- Single Family homes – Upper West (Lot A1)
- Overall site and grading (Lot A of Rock Hill Quarry Plat 2)

The City of Ladue ARB (Fred Goebel, Chairman, Matt Wolff, Mary Huelsman, and Crystal Knapik] have reviewed materials submitted on May 7, and May 21, 2026, addressing the proposed buildings. Actions taken were as follows:

- | | |
|--|----------------------|
| • Multi-Family Apartments – North Side | CONDITIONAL APPROVAL |
| • Villa residences – McKnight Frontage | CONTINUANCE GRANTED |
| • Single Family homes – Upper West | NOT SUBMITTED |
| • Overall site development and grading | CONDITIONAL APPROVAL |

In addition, a follow-up in person work session was held on May 21 related to the Multi-Family building to allow more detailed dialog with the developer and their architect. We anticipate an additional work session for the Multi-Family portion of the development before re-appearance at a regularly scheduled ARB session.

We anticipate the scheduling of a similar work session related to the Villa portion of the project, subject to notice of time and place from City of Ladue Administrative staff.

Summary

We are confident that the resulting buildings, massing, and materials will be in keeping with expectations of the City of Ladue, and the ARB Guidelines in place approved by the City Council.

Primary Contacts for ARB:

Andrea Sukanek	City Planner
Anne Lamitola, PE	Director of Public Works
McPherson D. Moore	Zoning and Planning Chairman

Submitted,

Fred Goebel, AIA Emeritus, CSI Retired
Chairman, Ladue Architectural Review Board