

**DEVELOPMENT SERVICES**

**Commercial Final Development Plan  
Applicant's Letter**

**Date:** Monday, August 19, 2024

**To:**

**Property Owner:** VIVION PROPERTIES LLC

**Email:**

**From:** Daniel Fernandez, Project Manager

**Re:**

**Application Number:** PL2024199

**Application Type:** Commercial Final Development Plan

**Application Name:** Take 5 Oil and Tire

**Location:** 400 NE M 291 HWY, LEES SUMMIT, MO 64086

---

**Electronic Plans for Resubmittal**

All Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats:

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multipage Portable Document Format (PDF).
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact Staff with any questions or concerns.

**Excise Tax**

On April 1, 1998, an excise tax on new development for road construction went into effect. This tax is levied based on the type of development and trips generated. If you require additional information about this development cost, as well as other permit costs and related fees, please contact the Development Services Department at (816) 969-1200.

---

**Review Status:**

**Required Corrections:**

<b>Planning Review</b>	Ian Trefren (816) 969-1605	Planner Ian.Trefren@cityofls.net	Corrections
------------------------	-------------------------------	-------------------------------------	-------------

---

1. Pole signs are not permitted in LS. Monument signs are the preferred alternative to pole signage, and have a maximum height of 12ft.

2. PDP design included signage only on the front of the building. Single-tenant buildings in the CP-2 district are restricted to a maximum of 3 attached wall signs.
3. Only the attached wall signs on the front facade of the building can be approved via this FDP since they were considered as part of the PDP. The freestanding sign and any additional signs must be reviewed separately as part of a Sign Permit application.
4. Signage on northern and southern facades exceeds 10% of facade area limit set by the UDO for single-tenant buildings in the CP-2 district.

**Engineering Review**

Gene Williams, P.E.  
(816) 969-1223

Senior Staff Engineer  
Gene.Williams@cityofls.net

Corrections

1. The "Stormwater Manag[e]ment Summary" dated Ju. 21, 2024 (hereinafter referered to as "the stormwater study") states on page 1 "the site is located in zone X". Please clarify, as FEMA has two (2) separate distinctions for "Zone X" on the maps. One is a shaded version of Zone X, and the other is an unshaded version of Zone X. The two (2) distinctions in Zone X are entirely different in terms of flooding potential. Please revise as appropriate. Flood zones have been updated.
2. The stormwater study did not analyze the downstream receiving system in any manner. It merely discussed the detention basin and FEMA floodplain designation. The engineer shall provide a downstream analysis to determine whether the construction of the detention basin on this site will make downstream peak flows greater than existing at a point to be determined by the engineer. While some engineers use the 10% rule of thumb for this analysis, the ultimate choice is up to the engineer-of-record. Please provide a downstream analysis to determine whether on-site detention increases the flooding potential downstream of this site. If downstream flooding increases due to the proposed construction of a detention basin, it may be waived by the City Engineer. Please be aware if this waiver is granted for peak flows for the 2, 10, and 100 year event, the water quality element of stormwater management cannot be waived. Please analyze and revise the report as appropriate. A downstream analysis has been discussed.
3. Conclusions Section of Stormwater Study: The City does not agree the "proposed Take 5 Oil Change Facility will not have an adverse effect on the downstream storm system...". While it might be fair to say the proposed detention basin meets the City requirements, it cannot be said that there is no adverse impact. The total energy of the stormwater exiting the site will always increase with the introduction of additional impervious area unless volumetric controls are established for the various storm events up to the 100 year event, which is usually impractical. The power may decrease with the installation of a detention basin for the 2, 10, and 100 year events, but overall energy increases for these events due to increased volume of stormwater unless volumetric controls can be shown to eliminate this excess volume. Although volumetric controls may be established for the 90 percent mean annual event (i.e., 1.37 inches of rain over 24 hours), it is impractical to establish volumetric controls for the less frequent events such as the 100 year event. Please revise the report as appropriate. This statement has been removed.
4. Will the detention basin and associated water quality elements meet the standards of Comprehensive Control Strategy described in the City of Lee's Summit Design and Construction Manual (i.e., KCAPWA Section 5600 and Lee's Summit Addendum)? If so, this shall be discussed in the methodology section and the conclusions section. The engineer shall provide a specific statement expressing his or her opinion on whether these requirements have been met. This statement has been added.
5. The stormwater study was missing a discussion of the emergency spillway, including the physical location of the emergency spillway and an opinion whether the location of the emergency spillway is appropriate. Engineer shall discuss this in the body of the report. Please revise. An overflow weir has been placed on the pond, and this is now discussed in the report.

6. The stormwater study was missing a discussion of the 100 year water surface elevation (nominal design elevation) in relation to the crest of the emergency spillway. A minimum 0.5 feet of freeboard is required for dams less than 10 feet in height. Dams higher than 10 feet shall meet the requirements of TR-60. Please discuss within the body of the report, including an assessment whether the dam is subject to TR-60 or not. Please evaluate, review, and revise as appropriate.

The 100-year water surface elevation has been discussed, and the crest of the overflow weir/top of pond has been set 0.5' above the 100-year WSE. A discussion about the dam not being subject to TR-60 has also been added.

7. The stormwater study was missing an evaluation of the 100% clogged/zero available storage in relation to the dam crest. TR-60 has more stringent requirements, but the KCAPWA requirements are 1.0 feet of freeboard between the 100% clogged/zero available water surface elevation and the crest of the dam (i.e., the lowest point of the dam). Please discuss these requirements, including an assessment whether the dam is subject to TR-60 or City requirements.

The 100% clogged/zero available storage - dam crest has been discussed in the report. A discussion about the dam not being subject to TR-60 has also been added.

8. The stream buffer was not discussed within the stormwater study. Please discuss the stream buffer within the stormwater study, and discuss how portions of the stream buffer were waived by the City where the existing retaining wall was constructed. Please revise as appropriate.

The stream buffer was discussed under the existing conditions section, however it has been elaborated upon.

9. Is the disturbed area greater than 1 acre? If so, a SWPPP is required, and this should also be discussed within the stormwater study. If not required, please discuss within the stormwater study why a SWPPP is not required.

No, the portion of the site that construction is proposed to take place on is only +/-0.66 acres

10. Are there any wetlands issues related to this project? Any mitigation issues related to this project? Please discuss whether or not these issues apply for this project within the stormwater study.

Discussion about the lack of wetlands has been added to the stormwater study

11. a complete discussion of the points of interest shall be included within the stormwater study. Suggest labeling each point of interest with A, B, and C. This would include the existing condition. In addition, a more thorough discussion of the points of interest shall be required, and a more thorough discussion how the allowable release rate for the post-construction condition is required. Please review and revise as appropriate.

A discussion about the points of interest and the allowable release rate have been added to the study.

12. General Informational Comment About the Stormwater Study: The downstream receiving system has issues related to flooding complaints, open record requests, and other concerns related to stormwater. Suggest this be considered when preparing the revised stormwater study.

Understood

13. Vicinity Map on Cover Sheet of Civil Plans: Please provide a larger vicinity map with a lesser scale than shown. The vicinity map provided on this sheet is difficult to see. This can be in the same form (i.e., Google image map), or other method. Recommend zooming-in as an aid to the City inspector so there is no confusion where the project is located. Please revise.

The Vicinity Map has been revised

14. Index to sheets is missing the topographic survey sheet in the civil plans. Please go through the index sheet and ensure all civil sheets are listed as presented in the civil plan set. Please review and revise as appropriate.

The Topographic Survey was listed on the Civil Title Sheet. The Architectural Title Sheet has been revised to include this.

15. KCMMB concrete mix is required for all public and private portions of the project, including entrance and parking lot. Please specify KCMMB concrete mix on the typical section views of the pavement.

The KCMMB concrete mix has been referenced in the concrete pavement details shown on Sheet C-4.2.

16. Public water main extension requires the submittal of separate plan set. Please submit a separate plan set for the public water main extension.

A separate plan set has been prepared and submitted.

17. Water meters for both the domestic water and irrigation supply should be located as close to the public water main as possible, and located within an easement. Recommend enlarging the easement near the end of the public water main extension so both water meters can be installed within the easement, with a minimum of 5 feet around the water meters. Please review and revise as needed. Please be aware a separately-recorded easement for water shall be required (i.e., not a general utility easement, but an exclusive water line easement). Please contact us for the

proper template for the easement, and please provide a review copy prior to execution and recording. An exhibit shall also be required as an aid in determining where the easement is located, and shall be prepared by a licensed surveyor in the State of Missouri.

The location of the water meters were placed at the direction of the city per our pre-development meeting. This is the closest point within our property to the public water main. The property line has been shown in bold for clarity.

18. General Comments Concerning Public Water Main: When preparing the separate public water main plans, please specify the pipe material (i.e., C900 DR18) rather than ductile iron. Minimum depth of cover is 3.5 feet, which does not appear to be achieved. No casing carrier pipe is desired at the entrance, so please do not specify casing carrier pipe for the bore. Leave the existing fire hydrant that is shown at the current "end of the line" in its current location by constructing an offset fire hydrant, and install a new in-line fire hydrant at the new "end of line". Please call me if any questions or concerns. The existing "end of line" appears to be shown as an 8 inch line, but our records appear to suggest this might be a 6 inch line. If a 6 inch line exists, this shall be removed and replaced with an 8 inch line. The final product shall be an 8 inch line the entire length of the extension. We will not allow an 8 inch to have a 20 foot section of 6 inch line to remain. Provide standard details within the public water main plans for fire hydrants, trenching and backfill, thrust blocks, and any other standard details needed for the public water main extension. Please provide public water main extension plans, and please address these comments as appropriate.

The public water main plans have been revised per your comments above.

20. I am assuming no fire suppression system is required by Fire Department. If fire suppression system is required, an outside backflow vault shall be required, and shall be installed outside of any public easement or right of way, and within a short distance of the public main and within an area that is not prone to flooding. Please revise if appropriate.

This job does not include any fire suppression.

21. Please provide a general pavement jointing pattern for the parking lot. I see the City standard detail, but it might be a good idea to be specific about providing a parking lot jointing pattern layout. Contractor may be able to change the layout during construction in consultation with the City inspector, but it would seem that a "go by" is warranted. Please provide a general layout for the parking lot joint pattern.

A Joint Plan has been provided.

22. Tapping sleeve is shown in the details section of the plans. The City of Lee's Summit does not allow tapping sleeves. Only cut-in tees are allowed. Please remove from the plans, and ensure any fire lines or water lines greater than 2 inches are specified as a cut-in tee. Please be aware the proposed 1 inch line can be installed as a corporation stop. It is unclear however whether a fire line is required by Fire Department (see above comments), so if that is required, a cut-in tee is required for the private fire line.

The tapping sleeve detail has been removed and a cut-in tee has been referenced.

23. Where is the detention basin plan? A detailed detention basin plan shall be submitted, preferably one or two sheets as needed. The detention basin plan shall include a bold note stating that "DETENTION BASIN SHALL BE CONSTRUCTED PRIOR TO ALL OTHER WORK EXCEPT FOR EROSION AND SEDIMENT CONTROL" or equivalent language. In addition, this sheet shall contain a bold and conspicuous note stating "AN AS-GRADED AND AS BUILT RECORD DRAWING SHALL BE SUBMITTED AND ACCEPTED BY THE CITY PRIOR TO ANY CERTIFICATE OF OCCUPANCY BY THE CITY". Please provide a specific set of plans within the Final Development Plan for the detention basin and entitled "Detention Basin Plan" or equivalent language.

A Detention Basin Plan has been provided.

24. The following items are required for the detention basin plan sheets: top of dam elevation, emergency spillway elevation, all weir and orifice elevations that are part of the outlet structure, 100 year nominal (i.e., design) storage volume, bottom of basin elevation, bottom of basin slope callouts, which may be less than 2% to achieve water quality objectives (i.e., we have seen as little as 0.5% in some instances to achieve water quality objectives), 100 year nominal (i.e., design) water surface elevation (WSE), 100 year clogged/zero available storage WSE, graphical limits of the 100 year clogged/zero available storage WSE (i.e., shown on the plan view with callouts), along with dimensional callouts from property lines and buildings to ensure a minimum 20 foot setback, typical section view of the outlet works and dam, along with elevation callouts for the 100 year nominal and 100 year clogged/zero available storage to ensure there is a minimum 0.5 feet freeboard between the nominal condition and the crest of the emergency spillway, and a minimum 1.0 feet from the clogged condition/zero available storage and the top of dam, location and callouts showing the emergency spillway, and a clear path that is not directed towards buildings or other other

vulnerable features. Please update as appropriate. I cannot review the detention basin without this information, nor can I review the stormwater study without reviewing this information to ensure it matches the pond setup table shown in the stormwater study.

A Detention Basin Plan has been provided.

25. Ensure the pond setup table shown within the appendix of the stormwater study matches the stage storage curve using the average end area method, and ensure the various elevations shown on the pond setup table match the elevations shown on the detention basin plan sheets. At this time, no further review can be conducted until the detention basin plan sheets are submitted.

Pond table has been revised to the average end area method.

26. Profile view of the underground detention basin with appropriate elevation callouts shall be required. Please revise the plans as appropriate. It shall be based on a SITE-SPECIFIC design, not a generic design based on a material submittal. Sheet C-4.5 appears to show this underground detention basin, but it appears to be generic and missing SITE SPECIFIC design parameters. Please revise and update the plans as appropriate.

Sheet C-4.5 has been updated to include the site specific design information.

27. Why is the exit pipe from the above-ground detention basin entering the grass-lined swale at a angle approaching 90 degrees? It appears this discharge point can be extended northerly to eliminate this issue. Please revise.

The discharge pipe has been relocated further downstream.

28. Is there any rip rap or other energy dissipation measures needed for the two discharge points for the detention basins? If so, specific design is required, along with specific information such as 1) sizing, 2) depth, 3) length, 4) width, and 5) geofabric under the rip rap. Please update if appropriate.

We are discharging onto a concrete lined channel and we are not proposing any additional energy dissipation measures

29. Is the discharge pipe from the above-ground detention basin sized for the 100 year event or higher? If not, this will need to be upsized. Please revise if appropriate. (Ref: all primary outlet works shall be designed for the 100 year event or higher).

The discharge pipes are designed for the 100-year event.

30. Where is the emergency spillway? It does not appear to be shown on the grading plan. Ensure the emergency spillway is shown on the required detention basin plan sheets (missing, see comments above), and ensure they meet the requirements for 1.0 feet freeboard for the 100% clogged, zero available storage event, and ensure the discharge from the emergency spillway will not harm adjacent property. Please evaluate and revise as appropriate, and discuss in detail within the stormwater study.

An emergency spillway has been added and discussed in the report.

31. It is impossible to review the ADA-accessibility of the parking lot without a site-specific plan showing elevation callouts, slope callouts, dimensions, ADA-accessible routes across the parking lot, ADA-accessible routes to the building, and all other information needed to perform a review of the ADA-accessibility of the parking lot. Please provide a site-specific plan which addresses these issues. Please be aware that simple elevation callouts are not sufficient. Slope callouts shall be required.

An ADA detail has been provided which includes slopes along the parking and ADA path to the building.

32. Please be aware the City has adopted more stringent standards for ADA-accessibility to account for construction tolerances. For cross-slope, the maximum is 1.5%. Please revise as appropriate.

Understood.

33. A spot check of the stage/storage curve shows there may be issues with the volume calculations for the above-ground detention basin. Please double-check, as my calculations using your grading plan contours show less volume than you are showing in your stormwater report. Please evaluate and revise the report and/or plans if appropriate.

This was double checked and the contour areas match the contours.

34. Profile views and HGL for the design storm of all storm lines are required for pipes greater than 10 inches diameter. They shall include pipe type and diameter, and shall show the finish grade. Minimum depth of cover shall be achieved for all pipe. Please provide profile views and HGL for all storm lines.

Profile views and HGL's have been provided

35. Where is the underground detention discharge being routed? Is it simply exiting the yard inlet 1A? This would appear to introduce a serious stagnant water issue, and is not recommended. Please show how this will be

constructed. Without a profile view, it is impossible to determine what you are proposing, and it is impossible to explain to a City inspector what he or she is inspecting. Please see previous comments related to profile view for all pipe greater than 10 inches, and ensure the finish grade, HGL (including callout of the storm event) is shown, and pipe type and lengths.

The underground detention is being discharged into the same concrete drainage channel that the above ground pond is discharging into.

36. Where are you discharging the stormwater from the Open End Trench? Grading plan does not appear to show how this will be drained. There are notes about a swale, but no contours. Without contours showing how this Open Trench Drain will drain, it is impossible to review. Please revise the plans as appropriate, and ensure all proposed grading is shown on the plans. Ensure there is a minimum 2% slope to drain as necessary.

The open end trench is used to bypass off-site run-on water from adjacent properties. It flows from the SE corner of the driveway to the NW corner of the driveway and ultimately to the concrete channel in the Hwy 291 ROW. A 2% slope is now provided and contours are shown.

37. What is SDP pipe in context to the private storm lines? Please specify. This is a term I have not heard before. The City only allows HDPE, CPP, RCP, and aluminized CMP (only for private side).

The pipes have been updated to HDPE.

38. Ensure the water meters for domestic and irrigation service are located in an area of positive drainage, and accessible to Water Utilities staff. Please revise in accordance with previous comments elsewhere in this applicant letter.

The location of the water meters were placed at the direction of the city per our pre-development meeting. Please let me know if these need to move. This area will drain towards the swale.

39. A SWPPP is required if the disturbed area is greater than 1 acre. Please provide a SWPPP if appropriate.

The portion of the site that construction is proposed to take place on is only +/-0.66 acres

40. A Design Professional's Opinion of Probable Construction Costs is required prior to formal approval of the Final Development Plan. Please include all sitework (i.e., not the building or lighting) necessary to construct the project in itemized and sealed format.

An OPC will be provided once all revisions have been completed and approved.

41. As previously discussed, separate public water main extension plans are required. Comments, however, are provided in this applicant letter for what is shown in your submittal documents. Please provide a separate public water main plan, and ensure all standard details are included.

A separate plan set has been prepared and submitted.

42. As previously discussed in this applicant letter, a separately-recorded water line easement dedicated to the City of Lee's Summit shall be required prior to approval of the final plans. Please contact the City for this EXCLUSIVE easement. A general utility easement shall not be allowed in this instance. Please submit a review copy prior to execution and recording. Please attach a graphical representation of the easement prepared by a licensed surveyor to show the limits of the easement.

I will continue to coordinate with the city as we move through the design. Once the design has been approved, I will make sure to coordinate the appropriate paperwork and requirements prior to creating and recording the easement.

43. Please ensure MoDOT is granting their approval of any commercial entrance work within their right of way. It is suggested an email from MoDOT to the City be provided showing their approval.

We have been coordinating with MoDOT and we will request the email.

44. The above ground detention basin does not appear to include any flat spot at the top of the basin. The City cannot allow a detention basin dam to be constructed to a point. For this size dam, it would appear a minimum flat spot dimension would be 4 feet at an absolute minimum. Please review and revise as appropriate.

The above ground detention has been revised to include a wall with the grades tying in to it as dictated by the adjacent topography.

45. Ensure the detention basin plan sheets show the cross section of the top of the dam, along with the dimensions of the flat spot described in the above comment.

A Detention Basin Plan has been created and shows the required information.

46. INFORMATIONAL COMMENT: Since it appears these plans were prepared in an incomplete manner, it is likely additional comments may be appropriate for the resubmittal based on revisions made to the plans by the design professional.

Understood

47. Ensure the domestic water line and irrigation line size and material type are clearly defined on the plans. Ensure they meet all building codes.

Domestic and irrigation water line sizes, materials, etc. are included in the plans.

48. Ensure copper domestic water line is called out a minimum of ten (10) feet beyond the water meter.

Copper domestic water line has been called out 10' beyond the water meter.

<b>Traffic Review</b>	Erin Ralovo	Erin.Ravolo@cityofls.net	No Comments
-----------------------	-------------	--------------------------	-------------

---

<b>Fire Review</b>	Jim Eden (816) 969-1303	Assistant Chief Jim.Eden@cityofls.net	Corrections
--------------------	----------------------------	--	-------------

---

1. All issues pertaining to life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to the safety to fire fighters and emergency responders during emergency operations, shall be in accordance with the 2018 International Fire Code.

Correct code information to the correct year.

<b>Building Codes Review</b>	Joe Frogge (816) 969-1241	Plans Examiner Joe.Frogge@cityofls.net	Corrections
------------------------------	------------------------------	---	-------------

---

1. Architectural, structural, & MEP designs are not being reviewed under this report.

Action required: Comment is informational.

2. All plans submitted for review on or after April 1, 2019 shall be designed to the requirements of the 2018 International Building Code, 2018 International Mechanical Code, 2018 International Plumbing Code, 2018 International Fuel Gas Code, 2018 International Fire Code, 2017 National Electric Code and the ICC/ANSI A117.1-2009 as amended and adopted by the City of Lee's Summit.

Action required: Amend Project Information to show correct code dates.

3. Specify type of water taps.  
Specify water pipe materials.  
Specify diameter of light pole base.