



PLAN COMMISSION STAFF REPORT

ITEM NO: 5 APPLICATION NO. 0034-2024

MEETING DATE: March 18, 2024

SUBJECT: Traffic Impact Analysis

PETITIONER(S): Engineering and Planning Departments

SUMMARY: Adoption of Road Impact Fee Zone Improvement Plan

LOCATION: City of Noblesville

WAIVERS REQUESTED: Non-applicable

RECOMMENDATION: Approval

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Planning Terms

Traffic Impact Analysis – A report that analyses traffic studies based on acceptable traffic and transportation engineering methodology that is pertinent and adheres to the Rational Nexus test.

Level of Service (LOS) – The efficiency of an intersection or roadway segment on its ability to accommodate the traffic volumes that approach the intersection or travel the roadway segment. Ultimately, the LOS is determined by a series of calculations.

Rational Nexus – A theory that states there must be a proportionality between the amount charged to a developer and the type and amount of facilities demand generated by the new development and that there is a reasonable connection between the use of the fees and the benefits produced for the new development all based on facts. In other words, is the proposed fee rationally related to legitimate government interests?

Impact Fee – A method by which a new user of a government owned system pays their fair share of the costs that the new use of the system involves.

Comprehensive Master Plan - A plan adopted by the Plan Commission and Common Council, pursuant to State law, and including any part of such plan separately adopted and any amendment to such plan, or parts thereof. The document shall include:

1. A statement of objectives for the future development of the jurisdiction.
2. A statement of policy for the land use development of the jurisdiction.
3. A statement of policy for the development of public ways, public places, public lands, public structures, and public utilities.

Procedure

The application was filed for a public hearing at the March Plan Commission meeting. Prior to the public hearing before the Commission, a published legal notice is advertised in the newspapers. The Plan Commission conducts the public hearing and either recommends approval or denial of the traffic impact analysis as being in compliance with the thoroughfare portion of the Comprehensive Master Plan.

Correspondence

None

Summary

Attached is a partial copy of the Traffic Impact Analysis Study ([Exhibit 1 – Partial Road Impact Analysis Study](#)) prepared by A & F Engineering that determines the future impact that new developments will have on the City of Noblesville's roadway system. Every five years, the City is required to update their traffic impact study to determine the adequacy of the road impact fees assessed against new developments. The first road impact traffic analysis was adopted in 1997 and the first fee collected in 1998. The purpose of this study is to determine the existing conditions, project the ten-year conditions, and calculate an impact fee based on the facts. The report is known as a Zone Improvement Plan. The City has adopted, as a minimum, the "Level of Service D" which describes operations with a delay in the range of 35.1 to 55.0 seconds per vehicle (signalized) and 25.1 to 35 seconds per vehicle delay for unsignalized. At a "Level of Service D", the influence of congestion becomes more noticeable. The "Level of Service E" describes operation with delay in the range of 55.1 to 80.0 seconds per vehicle (signalized). This level of service generally includes poor progression and long cycle lengths. The City has chosen a "Level of Service D" as the minimum standard for intersections and "Level of Service E" for the minimum standard for roadway segments in this zone improvement plan. ([Exhibit 2 – Diagram of Level of Service](#))

The study used data collected used the following variables number of lanes, roadway segment length, speed limit, percent no-passing zone, presence of median or passing lanes, average daily traffic (ADT), directional split of peak hour traffic, peak hour factor (PHF), and percentage of heavy vehicles. The computer software known as *HIGHPLAN* was used to determine the level of service for both two-lane and multi-lane roadway segments. An estimate of the traffic generated by each vacant parcel based on land use; pass-by and captured traffic; intra-site traffic; assignment and distribution of generated trips; the projected ten-year volumes; capacity analysis, level of service at the intersections and roadway segments; acceptable level of service standard; estimated construction costs; and the methodology for the determination of the impact fee. The "efficiency" of the roadway is its ability to accommodate traffic volumes that approach an intersection or travel along that roadway. Impact fees are the acceptable method of paying for public improvements to serve new growth.

The impact fee is a monetary charge imposed by the City for new developments to defray or mitigate the capital costs of infrastructure necessary to serve those new developments. The collected impact fees are used to upgrade and replace existing roads to provide the citizens of the community with safe and uninterrupted travel. The projected fee per 24-hour generated trip is \$583.90. This amount is the cost of any new development the City will be required to fund to meet the future needs of the City. This fee is only charged for new developments within the corporate limits and does not include the extra-territorial zoning jurisdictional area. A new development cannot be held responsible for existing inadequacies of the current street system.

The method used for determining the impact fee cost is the sum of the impact fee construction costs for all study intersections and roadway segments added to the cost of performing the impact fee study minus any year to date collected impact fees balance thus resulting in the Total Impact Fee Costs. The total impact fee costs is then divided by the total number of 24-hour trips that will be generated by the vacant land parcels. The estimated construction costs were based on 2023 construction costs and may be re-evaluated on an annual basis to reflect the annual inflation of costs for intersection and road construction or any major changes in the proposed land uses.

The Plan Commission's role is to determine that the Traffic Impact Fee Analysis (Zone Improvement Plan) for the City of Noblesville is consistent with the Comprehensive Master Plan and Thoroughfare Plan for the City of Noblesville. Although, I mentioned the projected fee, it is not the Plan Commission's role to approve the fee or a lesser amount.

Some of the objectives in the Comprehensive Plan dealing with transportation include

- ❖ Encourage several network upgrades and roundabouts
 - Cyntheanne Road for upgrades and proposed interchange along I-69
 - Boden and Olio Roads to serve as major north/south thoroughfares
 - Upgrade Prairie Baptist Road to a secondary thoroughfare
 - 156th Street to serve as secondary corridor
 - 206th Street to serve as the primary thoroughfare for Wayne Township
 - 146th Street leading to Greenfield Avenue to be upgrade as a primary thoroughfare
 - 191st Street to serve as a secondary corridor
 - Establishing an east/west corridor (Pleasant Street) and a north/south corridor.
- ❖ Plan Capital Improvements strategically to giving priority to areas experiencing or expecting the highest levels of residential and employment growth.
- ❖ Update the Thoroughfare plan that identifies changes through local planning.
- ❖ Adding road miles in a sustainable and efficient way.

The Traffic Impact Fee Analysis study gives the City a front -page look at what the City has currently, where new development is to occur, and where to plan for capital improvements. With this study we can update our Thoroughfare Plan.

History

- Since 1997, a traffic analysis study has been completed by A & F Engineering on a five year cycle.

Attachment

Exhibit 1 – A portion of the Travel Impact Analysis Study 2020

Exhibit 2 – Level of Service Diagram

Recommendation

Staff supports the approval of the Noblesville Traffic Impact Fee Analysis – Zone Improvement Plan 2024 as being consistent with the Comprehensive Master Plan's goals, objectives and Thoroughfare Plan.

Motions

1. Motion to send a favorable recommendation to the Council for adoption of the Noblesville Road Impact Fee Zone Improvement Plan as being in compliance with the Comprehensive Master Plan per Application #0034-2024.

2. Motion to deny the traffic impact analysis study. *List reasons*

3. Motion to continue Application No. 0170-2020 until the Road Impact Fee Zone Improvement Plan until the April 15, 2024 meeting.