

# Advantages of a new subway station in the 20th District of Tehran

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## Abstract

Since industrial revolution Air pollution and other related major problems in mega cities like Tehran play important role in civil engineering. In the other hand limitations such as timeworn urban textures challenge all governments to find certain solution for similar places. One of the best ways to help these hot zones using rail way solutions like subway and monorail to reduce the number of cars on street to reduce air pollution. In this research which is the next step to developing strategy to reduce car traffic in the center of Shahr-e Rey we are going to determine the effects of setting-up new subway station between Shahr-e Rey and Palayeshgah subway stations based on SUMO then analyze fundamental changes in Shahr-e Rey traffic that can cause revolutionary changes in drivers' behavior of not only Shahr-e Rey, but also small cities in southern Tehran like Varamin, Gharchak, Baghershahr, Hasan Abad and Mahdi Abad. In this survey we will ask 30 taxi drivers in Shahr-e Rey Taxi station, which frequently carry passengers from Rey to city centers named above in form to challenge the pros and cons of this Idea.

**Key words:** subway, Tehran, air pollution, traffic jam, Shahr-e Rey

## 1. Introduction

Today Share Rey is one of the major district of Tehran that contains important industrial facilities like Tehran oil refinery company and cement factory, thus Rey is Tehran southern link to southern provinces like Varamin, Qom, etc., Which causes traffic jam in rush hours in every street of Shahr-e Rey that becomes worse since 2002 that Rey subway station established and vast number of people start using this means of transportation to get in their workplaces as result shift cars traffic in this zone to the highest rank ever. Base on predictions and statistics by establishing of Abdol-Azim subway station half of traffics would choose this station, which is in Shahr-e Rey main square (Shah-Abdol-Azim), but if put all aspects by and check emigrant riot in southern Tehran, we face this is a temporary and because it keeps the traffic in the center of Shahr-e Rey it doesn't help reduce centralize air pollution of Rey. In our previous research on Islamic Azad University of Shahr-e Rey by gathering mass amount of information in different long-term aspects published a theory of shifting exterior traffics to out of Shahr-e Rey base on the theory of