

Frequently Asked Questions: Central Corridor Noise & Vibration Impacts

1. Why was Central Corridor light rail transit (LRT) routed down Cedar Street in St. Paul?

Studies throughout the 1990s and early 2000s resulted in the selection of Cedar Street as the preferred alignment because it:

- Serves the core of downtown businesses and has the greatest ridership potential.
- Has a wide bridge crossing the 94/35 commons.
- Carries slightly less traffic than other parallel north/south streets of Minnesota, Wabasha, Robert or Jackson.
- Is NOT a major access route into downtown like Wabasha, Robert and Jackson.
- Minimally affects property access compared to other north/south streets.
- Maintains access to ramp and loading dock of the largest downtown Class A building with east side alignment on Cedar Street.
- Accommodates both pairs of tracks rather than impacting two streets with one pair of tracks each.

The planned route for the line on Cedar Street in downtown St. Paul was first selected in the mid-1980s. After six alternatives were evaluated, it was reaffirmed by multiple public bodies in the 1990s, 2002, 2006 and 2008. The city of St. Paul, Ramsey County, the Metropolitan Council and the St. Paul business community all agree this is the best route.

The Central Corridor Project Office is concluding the Preliminary Engineering phase and has submitted its draft application to Federal Transit Administration (FTA) to move into Final Design. To change the route at this stage in project development would, at a minimum, add a year or two to the project schedule and tens of millions of dollars due to inflation. Considering the number of projects actively seeking federal funding, the actual delay to receive approval could be even greater.

Minnesota Public Radio accepted a \$3.3 million forgivable loan from the city and \$20 million of below-market financing from city issued bonds for the expansion of its building **after** the alignment had been approved for Cedar Street in the 1990s and reaffirmed in 2001.

2. What are FTA requirements during different phases of LRT project development for studying and mitigating noise and vibration impacts?

The FTA has different methodology for determining vibration and noise impacts (See Figure 1).

- **Noise** impacts are classified at levels of “severe”, “moderate” or “no impact” based on FTA methodology and definitions. The FTA guidelines require the consideration of alternative alignments only in the case of “severe” noise impacts; moderate impacts should be mitigated if feasible. The project office identified some **noise** impacts in the corridor including MPR’s buildings which are in the “no impact” to “moderate” impact category.
- **Vibration** impacts are not classified according to severity. Rather according to FTA guidelines, impacts either exceed the vibration threshold or do not. The project office’s **vibration** report identifies impacts and proposes mitigation strategies that will be implemented during LRT construction

The FTA also has different guidelines for level of analysis for different phases (Alternative Analysis, Draft Environmental Impact Statement and Final Environmental Impact Statement) of project development.

- **AA/DEIS**, the FTA expects a general noise and vibration assessment without requiring specific property-by-property impacts.
- **FEIS**, the FTA expects the project sponsor to (1) identify specific impacts by the affected property and noise sensitivity category (e.g. recording studios, residences, and commercial uses); (2) assign a level of impact; and (3) identify mitigation measures for “severe” and “moderate” noise impacts. The Met Council expects to have the FEIS finalized by March 2009.

3. Was Ramsey County (then the project sponsor) required to look at different routes in earlier phases of the project to avoid noise and vibration impacts?

MPR's concerns about noise and vibration impacts are being addressed in the manner and timeline required by the FTA. The FTA provides broad guidelines on evaluating alternative routes during the scoping phase. Criteria used by Ramsey County to evaluate alternatives alignments, which did not include noise and vibration, was selected based on a consensus of the project partners. Alignment alternatives for the Central Corridor were evaluated by Ramsey County during the scoping phase, which was completed in 2001; MPR did not submit comments or concerns regarding the Cedar Street alignment in this phase.

Ramsey County conducted a generalized noise and vibration impact analysis for the proposed route as part of the DEIS; no "severe" noise impacts were identified. In 2003 during the DEIS phase of the project, MPR provided Ramsey County with a copy of its vibration analysis that identified impacts. *MPR's own report proposed workable mitigation strategies, which confirmed Ramsey County's generalized assessment that vibration impacts could be mitigated.*

In preparing the FEIS in 2008, the project office engineers used FTA methodology to assess noise and vibration impacts. *As stated above, noise impacts to MPR are not "severe" as defined by the FTA. Therefore it is not now nor was there ever the requirement to look at "alignment alternatives" to avoid "severe" noise impacts. Mitigation strategies will be documented in the FEIS.*

4. What is the Met Council doing to work with MPR to address its concerns?

The Central Corridor Project Office, MPR and their respective consultants continue to meet and share information just as they have done for much of 2008. The project office hired ATS Consulting to conduct detailed testing of vibration impacts due to LRT at MPR and the two adjacent churches. The project engineers conducted an initial **vibration** test in May and a supplemental test in September. As part of the vibration testing, project office staff and consultants toured MPR's facilities and worked with MPR's engineers to identify testing locations. The draft report was shared with MPR in July, and the final report was shared in December; project engineers met with MPR staff both times to review the data and results. In October, the project engineers conducted **noise** testing in coordination with MPR engineers and shared the noise report with MPR. Project engineers also coordinated with MPR's engineers to conduct a controlled test of bells and horns at the Hiawatha LRT yards and shop. Further, project office staff responded in a detailed letter dated November 5, 2008, to MPR's concerns outlined in its September 2008 report: "A Review of Noise and Vibration Issues, Central Corridor LRT at MPR."

5. What are the Met Council's plans to mitigate the identified noise and vibrations?

The proximity of the tracks, which are 14 feet from the closest point of MPR's new building, makes vibration mitigation necessary. The preliminary mitigation plans being developed anticipate the expenditure of at least \$1 million for the construction of a floating slab to isolate vibration.

The Met Council hired consultants, who have worked on other projects around the country, to assist with the FEIS noise and vibration evaluation and to design mitigation measures during Final Design. While no two projects are identical, there are mitigation strategies that have been successful in dealing with noise and vibration impacts on other projects. The consultants assure the Met Council that the proposed mitigation measures will address the identified impacts.

- **Noise** mitigation will include on-site modifications to MPR Studios M and P in the old building to block the transmission of outdoor noise and create more acoustically isolated recording studios. Metro Transit will also modify its practice of activating horns each time trains meet at grade crossings, such as the intersection of 7th and Cedar streets, as well as sounding the horns only in emergencies.
- **Vibration** mitigation will include the construction of a 700-foot-long concrete "floating" slab under the track on Cedar Street. The floating slab isolates vibration away from the MPR building. (See Figure 2)

Further, project office engineers relocated a track crossover previously sited on Cedar Street in front of MPR to a location north of I-94 where it will not affect noise and vibration sensitive or historic buildings. A crossover is a track structure that allows continuous passage between two nearby and generally parallel tracks.

Figure 1: Noise and Vibration Analysis Phases

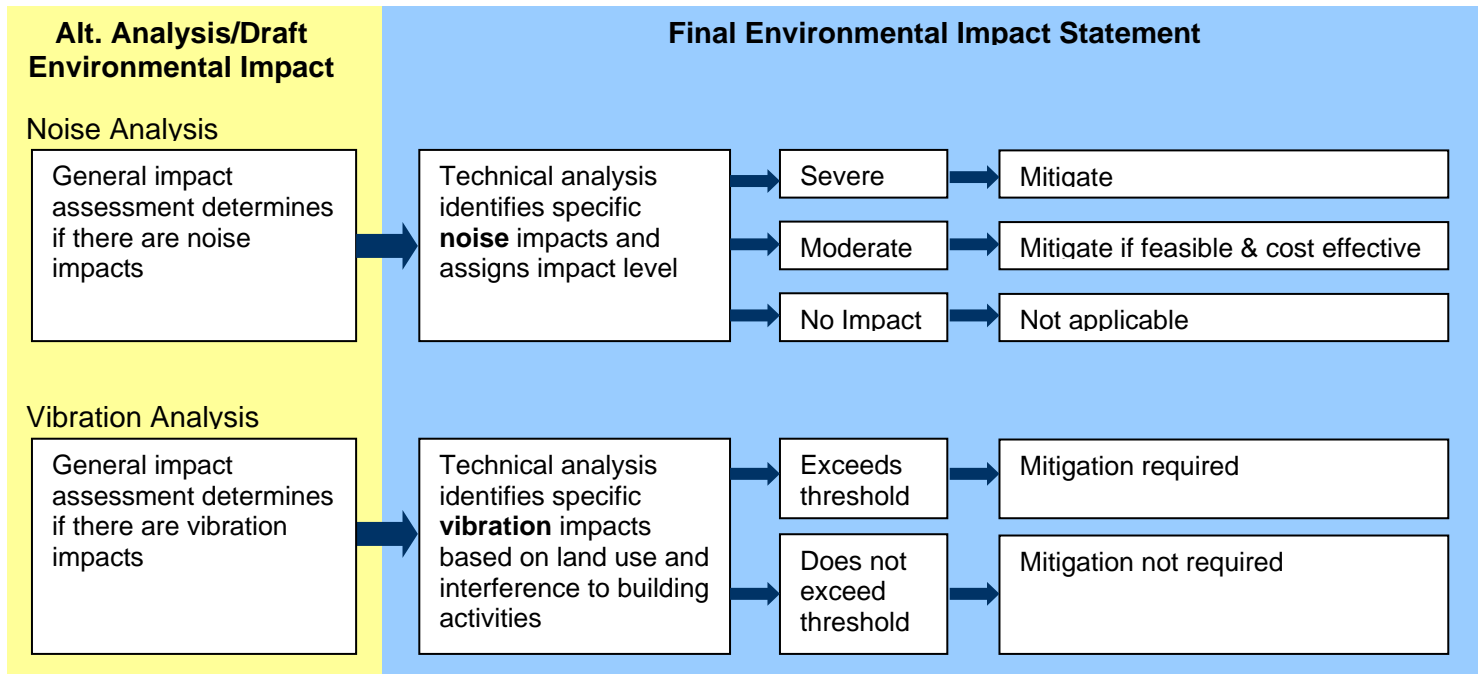


Figure 2: Floating Slab Vibration Mitigation

