# NET BENEFIT ANALYSIS

*Senate Bill 177*

## PROJECT INFORMATION

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| **Date:** | 12-11-2017 |
| **Project PIN:** | 13861 |
| **Project Name:** | SR-101; SR-165 to Hardware |
| **Project Manager:** | Daryl Ballantyne |
| **Project Scope:** | Rotomill and overlay |
| **Lowest Posted Speed Limit:** | 40 |
| **Local Jurisdictional Authority(s) (LJA) Affected:** | Hyrum |
| **LJA Contact Name(s) and Number(s):** | Ron Salvesen 435-245-6033 |

## NET BENEFIT ANALYSIS - Compare Nighttime Work to Daytime Work

*Check the box if documentaton is attached*

| | | | |
|---|---|---|---|
| ☐ | **Public Health** *(Noise Pollution, Sleep)* | No Change | |
| ☐ | **Project Completion Time** *(Schedule, Project Duration)* | Positive | Performing night work will enable the project to be finished sooner due to improved traffic control. |
| ☐ | **Air Quality** *(Congestion Reduction)* | Positive | Less congestion and idling for daytime traffic. |
| ☐ | **Traffic** *(Delays, Construction Impacts)* | Positive | Less traffic impacts. Ease congestion. |
| ☐ | **Economics** *(User costs, Business access)* | Positive | Less influence to businesses bordering project. |
| ☐ | **Safety** *(Traveling Public, Workers)* | Positive | Less traffic congestion positively influences worker and driver safety. |
| ☐ | **LJA Concerns** *(Preference)* | No Change | |

**CONCLUSION - Engineer's Analysis**

Net Positive - Safety, Production, Schedule, Air Quality, Economics and fewer traffic delays.

**Final Assessment** Positive

**LJA Requested Mitigation Measures**

Notification requested to homes effected as practical.

**Noise Permit Information - LJA Permits (s) and Date Received**

To be presented for approval of the Hyrum City Council on Jan 4th.

# Temporary Noise Permits

## *Net Benefit Analysis*

### Overview

The net benefit analysis compares night work to day work to determine if night work provides a greater net benefit to the community. It is required to be completed on all projects with night work and a posted speed limit below 55 mph. This includes work done on side streets.

### Net Benefit Analysis Instructions

Each analysis area, as outlined by the law, is to be rated negative, no change, or positive. Analysis areas are listed below with ideas to consider when completing the net benefit analysis:

***Public Health*** – Is the route along commercial or residential properties? Is construction noise long or short term? Have any mitigation measures been included in the project to reduce noise?

***Project Completion Time*** – Will project duration be negatively affected by night work? Are production rates affected?

***Air Quality*** – Air quality is negativity impacted by congestion. Will night work ease congestion? The traffic management group may provide some pollution figures with user costs depending on route and analysis used.

***Traffic*** – Will night work ease congestion?

***Economics*** - User costs are required for all UDOT projects (UDOT Policy 08A-13). Do user costs justify nighttime construction? What do local businesses prefer? Are they busier at night or during the day?

***Safety*** – NCHRP report 627 states that nighttime construction is typically safer than daytime construction (confirmed by analysis of Utah crash data). Is there any reason why this project will differ from the report's findings?

***Local Jurisdictional Authority(s) Concern*** – What is the LJA concern?

Each section on the form has an area for comments and a check box for attachments. Explain how and why the team came to each conclusion and attach any supporting documentation, such as, user costs calculations and emails.

### Example

If night work relieves congestion and reduces user costs, you would mark positive on traffic, economics, and air quality. If the construction is louder than existing traffic and the roadway abuts residential homes, then public health would be marked negative.