

# Highway 38 Improvements

Improving Life in  
Rural America



Photo courtesy of Cedar Rapids Gazette

**F4 CITY OF  
TIPTON**

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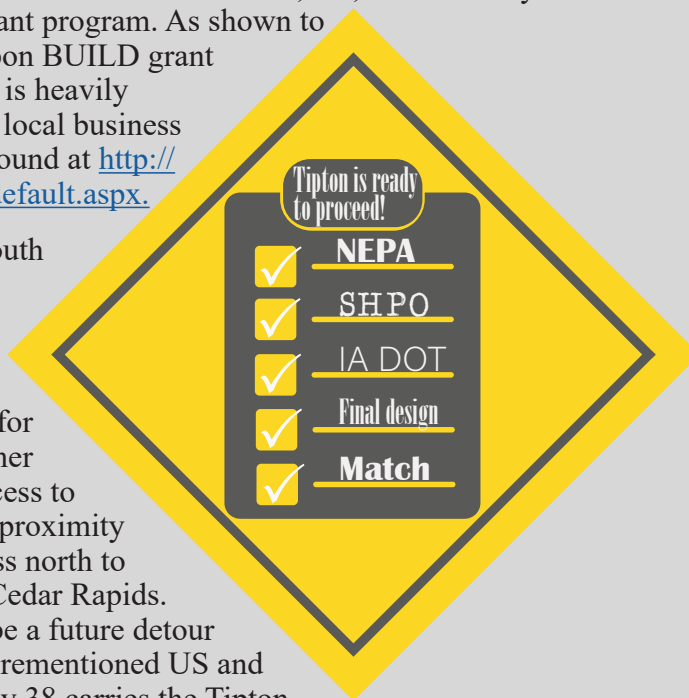
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## I. Project Description

The City of Tipton is pleased to present the Highway 38 Improvements project. Total project cost is \$8,253,245. Local funds and Iowa DOT's contribution totals \$3,561,770. The City is requesting \$4,691,475 from the BUILD grant program. As shown to the right, the project is ready to proceed upon BUILD grant award and contract execution. This project is heavily supported by Tipton citizens as well as the local business community. All letters of support may be found at <http://www.tiptoniowa.org/hwy38-road-project/default.aspx>.

(Iowa) Highway 38 is the primary north-south thoroughfare through the city of Tipton, in Cedar County, Iowa and serves many different purposes. It carries heavy truck traffic that supplies two grocery stores, along with outbound and inbound activity for Tipton's manufacturing companies, and other businesses. It allows for through-traffic access to Interstate 80 to the south which is in close proximity to Iowa City and the Quad Cities and access north to Highway 30 for people travelling west to Cedar Rapids. It currently endures frequent use and will be a future detour for planned construction on both of the aforementioned US and State highways. Most importantly, Highway 38 carries the Tipton population to their homes and visitors to the community. Traffic counts estimate that 7,400 vehicles a day are on Highway 38 or Cedar St, as it is known in Tipton.



## Project History

### *Pavement Surface*

According the Iowa Department of Transportation's records, Highway 38 from 1<sup>st</sup> Street to the north corporate limits was originally paved with 7" of concrete in 1928. In 1966, the corridor from First Street to 7<sup>th</sup> Street was overlaid with asphalt. The segment from 7<sup>th</sup> street to 11<sup>th</sup> Street was reconstructed with 10" of concrete over 12" of aggregate base in 2010. The length from 11<sup>th</sup> Street to the north city limits was overlaid with asphalt in 1964, 1977 and 1994. The length from the south city limits to First Street was originally 9" of crushed stone in 1959, then surfaced with 9" of asphalt in 1980 and finally resurfaced with asphalt in 1997. The City's Downtown Streetscape project in 2007 installed sidewalks with curb and gutter from 4<sup>th</sup> to 6<sup>th</sup> Street, but did not improve the travel or parking lanes.

In general, asphalt pavement overlays are expected to last about 15 years. From above information, the pavement surface of the south segment is 22 years old, the middle pavement surface is 53 years old, and the north segment surface is 25 years old. The middle and north segments have numerous patches. The length of the project, with the exception of the new pavement from 7<sup>th</sup> to 11<sup>th</sup> Street in 2010, is about 1.5 miles long.

The Iowa DOT approached the City of Tipton in the summer of 2017 about addressing the pavement problems on Highway 38. The two agencies agreed to plan for a reconstruction/ resurfacing project to be constructed in 2021. The DOT would have done some maintenance on the road in 2026 if the Iowa DOT did not approach the City.

### *Underground Pipes*

The City hired a consultant to help with preliminary design in early 2019. Along with the pavement deterioration, the City had been experiencing problems with drainage and utilities within the corridor of Cedar Street.

The existing water mains under the pavement of Highway 38/Cedar Street from South Street to 6<sup>th</sup> Street are old and undersized, only 4" diameter. Water main-breaks/leaks typically occur once a year on this segment. Under-sized water mains renders the fire-protection capabilities ineffective and inadequate for the 6 block downtown corridor.

Accordingly, the wastewater collection system along the corridor is also old and exhibiting distress. A sewer televising program performed recently revealed many problems with the existing pipes including offset joints, cracked pipe and protruding service connections. Debris from manhole deterioration was also discovered in the pipes. Throughout the street length, joints are deflected and leaking, allowing both clean groundwater to enter, or wastewater to leave the pipes, depending on the level of groundwater. Pipes are cracked with structural deficiencies through the project corridor. In addition, there are many areas where the pipes have settled, creating low points where solids build up, requiring frequent cleaning and maintenance.

During heavy rainfall events, the existing storm sewer system on some segments cannot convey the runoff which then ponds and backs up onto the street corridor. Further examination and video inspection revealed that some of the storm sewer pipe, similar to the sanitary sewer, is structurally deficient. Inlet structures are also deficient and will likely need to be relocated to obtain proper surface drainage.

The Highway 38 corridor is challenging to pedestrians, bicyclists, and motorists. Unsafe conditions on the roadway are particularly dangerous for youth accessing Tipton's Elementary and Middle Schools west of Highway 38 and students attending the high school east of the project corridor. Elderly and disabled residents of Tipton are also constrained by poor access to downtown Tipton that are not compliant with ADA requirements. The regional transportation network is threatened because this access to State and Interstate highways is continuing to endure daily wear and tear. Tipton's key transportation challenges include:

- Excessive speeding along the Highway 38 Corridor creates the potential for conflict with pedestrians and bicyclists.
- Lack of sight distance at major intersections in the Highway 38 Corridor.
- Traffic control signals lack vehicle detection.
- Little or no bike accommodations along the corridor or for people wishing to access the Heartland Sports Complex on the south end of town or just to get to Family Foods on the north end of town, no matter the transportation mode.
- General disconnectedness between the downtown corridor and the rest of the community and its attractions, such as: James Kennedy Family Aquatic Center and City Park, Buchanan House Winery, Tipton Golf and Country Club, Cedar County Fairgrounds, and Unity Point Health and Family Medicine Clinic.
- Inadequate pedestrian crossings consist of non ADA-compliant and poorly marked crosswalks and non ADA-compliant traffic signals.
- The Highway 38 Corridor lacks identity without uniform street lighting and landscaping. The existing streetscape discourages people from walking through the area and works against the community's goal of developing a vital commercial corridor.

- An undersized drainage system that results in regular street flooding.
- In the downtown and residential corridor of Highway 38, the pavement is filled with patches, non-uniform cross sections, irregular drainage patterns, ponding areas, and lack of full height gutters. The pavement section has effectively reached the end of its life.
- The asphalt surface outside of the downtown and residential corridor exhibits a rough ride and a large amount of cracking and rutting in the wheel paths. Full-depth patching has been needed due to rutting and structural failures. A drop off forms at the edge of the asphalt along the shoulder without regular maintenance.

“ I don't feel safe...

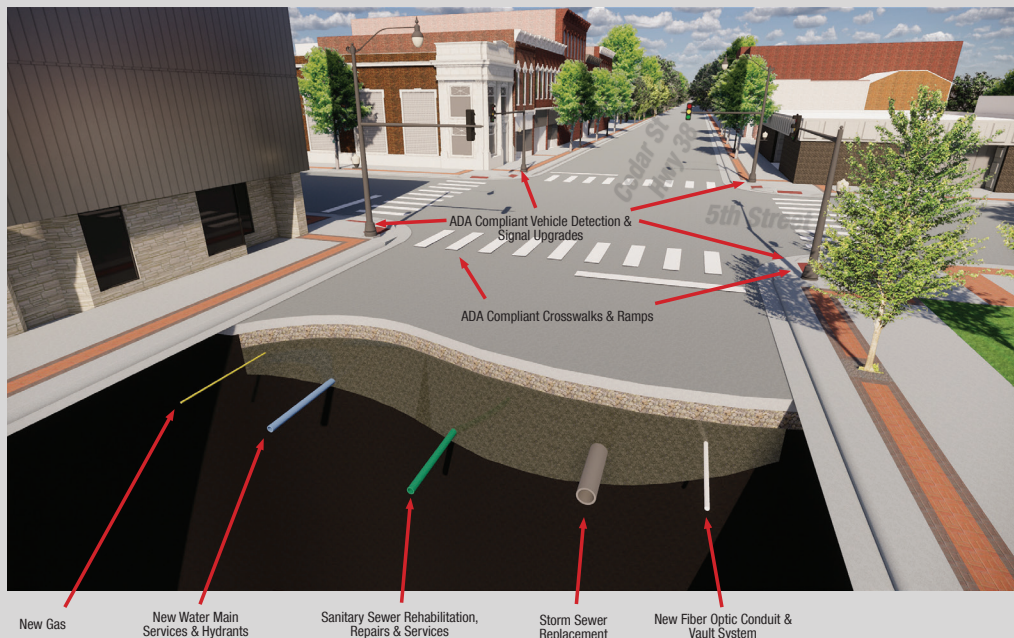
...taking my young daughter, age 4, out on her bike with her little brother, age 1, in the stroller because it would require us to use the road. A recreational trail would allow us to travel to our children's two favorite places safely, the library and the park.  
*Joshua and Beth, Tipton residents, from the attached letter of support*”

### Tipton's Plan to Address Transportation Challenges

The Highway 38 Improvements project consists of giving an aging piece of critical transportation infrastructure, new life, by making it safer, efficient, sustainable, and aesthetically pleasing. Some unique characteristics of this project include the installation of conduit crossings at key locations between South Street and 13<sup>th</sup> Street for future fiber optic service, provision for the safe accessibility for all users of the corridor from north to south, upsizing the water distribution system to vastly increase fire protection capabilities from South Street to 6<sup>th</sup> Street.

Major project elements include new street pavement and resurfacing; replacement of curb and gutter;

replacement of pedestrian curb ramps and sidewalks for ADA compliance; repair and replacement of storm sewer; repair, replacement, and lining of sanitary sewer; repair and replacement of water main; installation of new fiber optic conduit crossings; installation of a portion of a multipurpose trail; new lighting; and, traffic signal upgrades. All sidewalk, crossing, and traffic signal improvements will be ADA compliant.



Specifically, the project will:

- Upgrade traffic signals to include modern traffic detection from side and through directions to reduce wait time for traffic on Highway 38 and improve traffic flow.
- Install ADA compliant traffic signal push buttons, cross signals with auditory functions.
- Install ADA compliant crosswalks and ramps at all intersections.
- Install inlaid pavement markings.
- Provide a walking/bike trail that is tentatively named the “Sissel-Behrle Memorial Trail” along the project corridor, connecting to the future Crooked Creek Trail within the project corridor.
- Install standard highway lighting and decorative downtown lighting.
- Enhance streetscapes to increase mixed use and downtown business development.
- Facilitate the installation of needed broadband access for areas of Tipton.
- Strengthen fire-protection capabilities downtown by replacing an old, undersized, failing water main pipe with new 8-inch PVC water main pipe.
- Make the project location prime for commercial property development by replacing an undersized drainage system to carry storm water away.
- Perform spot repair, manhole replacement and lining of the sanitary sewer system, replace deteriorating sewer services.

## **Statement of Work**

Following is a summary of the anticipated major tasks to implement the BUILD project:

### **1. Overall Project Management**

- Hire Project Manager: The City will hire a BUILD project manager to supervise and implement the multi-phase project. Duties will include public outreach, project coordination, construction management, reporting, and compliance with all funder requirements.
- Execute Funding Agreements: Execute binding funding agreements with Iowa Department of Transportation and other funders.
- Create Capital Project: Establish a capital project to secure debt financing for the full project cost if needed. A bond anticipation note will be issued to fund projected expenses prior to receipt of grant reimbursement.
- NEPA: The project qualifies as a Categorically Excluded activity as it consists of reconstruction of existing public facilities without any significant increase in size or capacity. Initial investigations for this project by the Iowa Office of the State Archeologist recommended no additional archeological investigations be required. Following consultation on historic resources and endangered species with Iowa Department of Natural Resources, the project is expected to comply with all requirements.

### **2. Community Engagement**

- Outreach: Communicate project impacts to residents and local businesses.

- **Property Access:** Engage property owners, business owners, residents, and employees to develop traffic flow, construction staging, and property access plan.

### 3. Rebuild Highway 38/Cedar Street

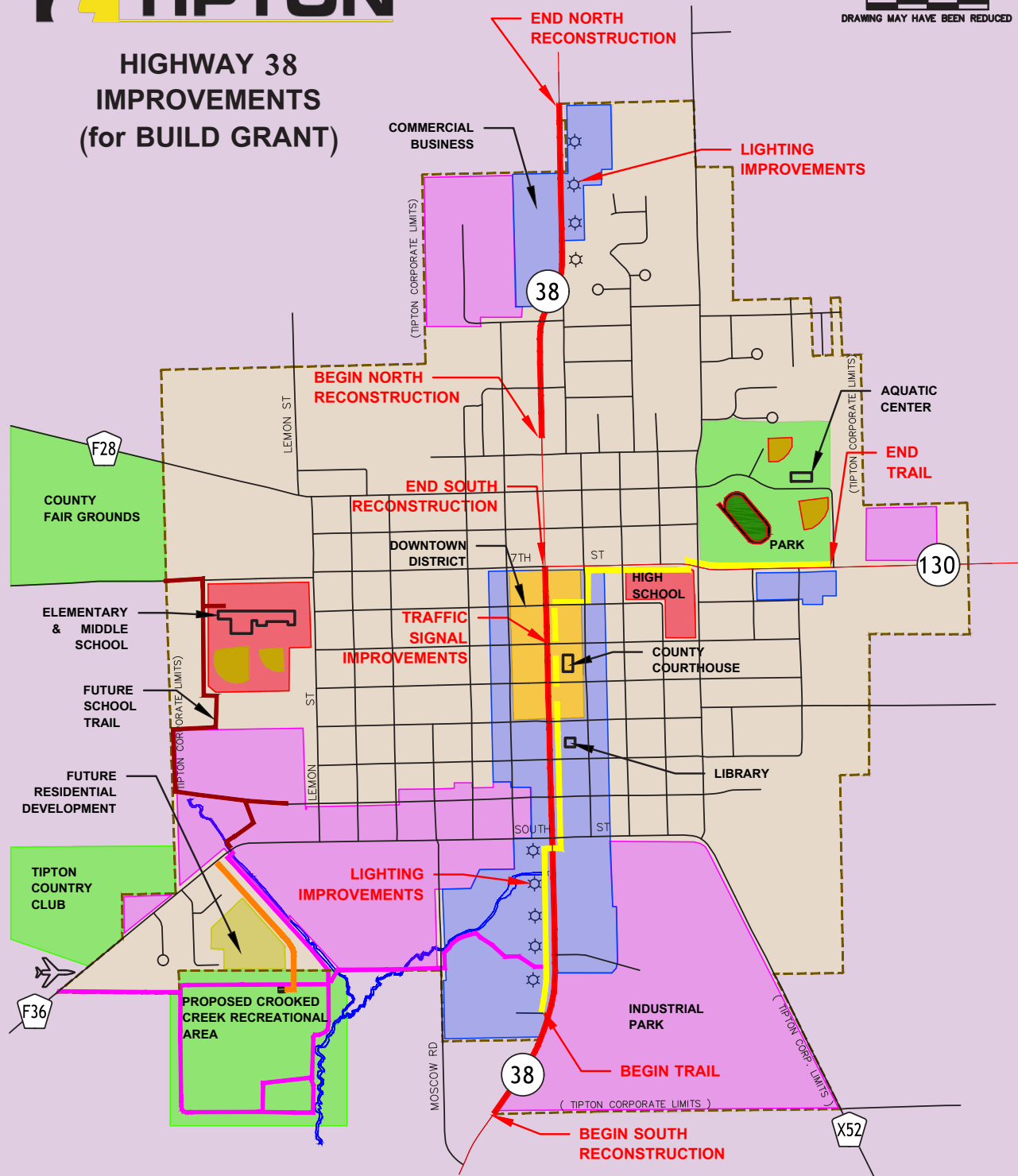
- **Construction Easements:** Secure temporary construction easements where grade changes/retaining walls will be installed.
- **Construction Documents:** Preliminary plans were completed May 15, 2020. Final construction documents will be uploaded to Iowa DOT project server in October 2020. Final Iowa Department of Transportation approval is scheduled for November 2020.
- **Bid:** Bid letting for the project is scheduled for January 2021. Bid out and award construction contract.
- **Construction Contract:** Execute construction contract.
- **Construction:** Complete Street construction on Highway 38/Cedar Street.
  - Initiate maintenance of traffic activities to provide detours for thru traffic and provide for access to local properties along project corridor through each phase of construction.
  - Complete installation of sanitary sewer as well as drainage and storm water infrastructure along the roadway.
  - Replace the existing aging and undersized water main.
  - Construct fiber optic conduit crossings.
  - Install portions of the improved traffic signal infrastructure.
  - Install decorative street lighting and conduits.
  - Construct street subbase, base, and pavement or resurfaced pavement.
  - Construct sidewalk, trail and driveway pavements
  - Complete landscaping of disturbed areas

## II. Project Location

Tipton, Iowa is the county seat and Cedar county's largest city. Highway 38 runs north and south through Tipton. This section of Highway 38 connects with Highway 30 to the north and I-80 to the south (see map to the right).



## HIGHWAY 38 IMPROVEMENTS (for BUILD GRANT)



The Highway 38 Improvements project begins just after entering the city limits. Highway 38 carries goods and travelers north connecting them to Highway 30 to travel west to the next metro area of Cedar Rapids, and south to connect to Interstate 80 either to travel west to Iowa City or east to Davenport. This project consumes the main thoroughfare in Tipton, known as Cedar

Street through this town of 3,200+ people, at a length of 1.81 miles. The project coordinates are from 41.784468, -91.127530 to 41.776980, -91.128425, then from 41.772071, -91.128409 to 41.756607, -91.131564.

The project is not located in an Urbanized Area and is considered rural by DOT BUILD standards. It is also not located in an Opportunity Zone. Above is a map of the project location, which also represents the locations of the proposed project improvements, described earlier.

### III. Grant Funds, Sources and Uses of Project Funds

The City of Tipton is committed and is ready to move forward with the Highway 38 Improvements project, which supports its county comprehensive plan, empowering this rural community to thrive and prosper for years to come. Non-federal matching funds are committed and ready to be used on the project.

Total project cost is \$8,253,245. Local funds and Iowa DOT's contribution totals \$3,561,770. The City is requesting \$4,691,475 from the BUILD grant program. The non-federal local funds represents 43.16%. The following is a more detailed illustration of the uses of project funds.

Highway 38 Improvements Project			
Description	Cost	BUILD Request	Non Federal funds
Paving - Street Pavement	\$2,938,640	\$929,085	\$2,009,555
	36%	20%	56%
Paving - DETOUR Route Improvements	\$832,600	\$429,410	\$403,190
	10%	9%	11%
ADA Compliant Sidewalk Improvements	\$494,500	\$105,340	\$389,160
	6%	2%	11%
Sissel - Berhle Trail	\$605,715	\$581,815	\$23,900
	7%	12%	1%
Storm Sewer	\$795,765	\$568,170	\$227,595
	10%	12%	6%
Water Main	\$823,395	\$823,395	\$0
	10%	18%	0%
Sanitary Sewer	\$253,230	\$253,230	\$0
	3%	5%	0%
Street Lighting	\$247,600	\$247,600	\$0
	3%	5%	0%
Traffic Signal Modifications	\$97,300	\$53,510	\$43,790
	1%	1%	1%
Conduit Crossings for Fiber Optic	\$87,980	\$87,980	\$0
	1%	2%	0%
Construction Engineering	\$1,076,520	\$611,940	\$464,580
	13%	13%	13%
<b>TOTAL</b>	<b>\$8,253,245</b>	<b>\$4,691,475</b>	<b>\$3,561,770</b>
	<b>100%</b>	<b>57%</b>	<b>43%</b>

### IV. Selection Criteria

#### (1) Primary Selection Criteria

##### (a) Safety

Total Project Cost	\$8,253,245	%
Non Federal funds (IADOT /Local Funds)	\$3,561,770	43.16%
Total BUILD Fund Request	\$4,691,475	56.84%
Percentage of BUILD Funds	56.84%	

One of Tipton's primary goals with the proposed BUILD improvements is to ensure the safety of all citizens utilizing Highway 38. The City seeks to improve pedestrian and bicycle accommodations along the corridor. There are currently several points of conflict between automobiles and people in the public realm of Highway 38 and its intersecting streets. The typical street cross section along Highway 38 includes two travel lanes, one in each direction, and parking lanes on each side. The sidewalks on much of the corridor are non-ADA compliant and deteriorated. The area along Highway 38 has been consumed by access to businesses, residential developments and public buildings, contributing to an unsafe walking environment. Highway 38 intersections are challenging to walk across safely because of long crossing distances, poorly marked crossings, and the lack of traffic signals. These factors contribute to a very challenging pedestrian and bicycle experience, especially for students attending Tipton's

Elementary School, Middle School, and High Schools, and the nearby City Park and Aquatic Center.

Highway 38's intersections with Highway 130, E and W 5<sup>th</sup> Streets, E and W 6<sup>th</sup> Streets, and E and W South Streets assist in distributing traffic within the city, downtown, and business park. The E and W 5<sup>th</sup> Street intersections are also key locations where children cross each day on their way to the Elementary School, Middle School, and High Schools. The crosswalks at these intersections are challenging for both children and adults to cross safely. Traffic signals at this intersection are non ADA compliant. The proposed traffic signal upgrades will improve pedestrian crossing safety. In addition, some areas in the northern and southern portions of the corridor have no sidewalk, further hampering safe walking. For example, in the far southern portion of the corridor, there is Progressive Rehabilitation Associates, offering Physical Therapy, Occupational Therapy, and Speech Therapy. Typically, residents are coming from the south, from town, walking on the shoulder, alone. As you can see in this staged photo to the right, the shoulder is gravel, which provides rough terrain to maneuver a walker or a cane.

Highway 38, or Cedar Street, as it's known in the city limits, is the main access to downtown, and many

restaurants and shopping are along this major thoroughfare. E 5<sup>th</sup> Street is the primary access to the Cedar County Courthouse. W 5<sup>th</sup> Street gets people to city hall and other businesses. Visually enhanced crosswalks at each intersection will keep pedestrians safer by making the crossing more visible to traffic.

7<sup>th</sup> and 6<sup>th</sup> Streets are primary intersections to access the Family Foods grocery store, the post office, and the schools.

A dedicated bicycle route does not currently exist through the corridor. With the addition of the shared use trail and designated bike routes, a safer environment with more separation will be provided.

The project will help the City avoid surface-transportation related crashes, injuries and fatalities, and achieve significant safety benefits. The proposed improvements will help Tipton shift traffic modes from personal vehicles to walking and biking. The existing conditions create unsafe

“ We need the street light improvements...  
...because it would be so much brighter and safer because right now, it's not safe. *Shelby – Tipton youth, from the attached letter of support* ”



conditions for bikers and pedestrians.

The posted speed limit is 20 mph in the downtown area from south of 2<sup>nd</sup> Street to north of 6<sup>th</sup> Street. It is 30 mph for the rest of the route within the urban section and 45 mph on the rural sections on either end of the project. Speed limits will be maintained at the 20 mph limit through downtown due to parking and pedestrian safety. Intersection sight distance and obstructions will be evaluated during design.

There were 69 crashes recorded along the project during the five-year study period with 51 crashes south of 7<sup>th</sup> Street and 19 crashes north of 11<sup>th</sup> Street. None of the crashes were fatal.

Tipton's Benefit-Cost Analysis (BCA), estimates that the community will save approximately \$171,991 in crashes per year, beginning in 2023. When discounted over 30 years (7% rate), this amounts to a \$2.13 million benefit.

No-Build	Build [1]	Net Benefit (Build-No Build)	Net Benefit (Build-No Build) Discounted at 7%
<b>\$21,498,857</b>	<b>\$16,339,131</b>	<b>\$5,159,726</b>	<b>\$2,134,242</b>

#### (b) State of Good Repair

The City and IDOT began discussing the Highway 38 project in mid-2017. Since then, the City's elected officials, City staff, local council of government staff, the comments of IDOT staff, and engineering consultants have focused on creating a comprehensive plan for the Corridor to address today's problems and tomorrow's opportunities.

**The project is consistent with relevant plans to maintain transportation facilities or systems in a state of good repair and address current and projected vulnerabilities - The Highway 38**

Improvements project is consistent with existing local and regional plans to maintain transportation facilities and systems in a state of good repair. It is listed in the area's Regional Planning Affiliation (RPA)

Transportation Improvement Plan document. The project also supports *Cedar County: Envisioning a New Horizon* vision plan, specifically the goal to revitalize the downtown area. It also supports Goals 2 and 4 of the region's Comprehensive Economic Development Strategy (CEDS): Goal 2.

Transportation Infrastructure – Improve highway and bridge transportation infrastructure funding to attract, retain, and expand business in the region; Goal 4.

Community Development – Enhance community and public facility infrastructure and increase access to community services and amenities to meet the demands of regional employers and their employees by increasing the number of public and private funds to the region.

The project also aligns with the "Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity" by supporting three of the five key indicators of rural prosperity: Improving Quality of Life (improved transportation as a result of the project); Supporting a Rural Workforce (the project will attract available workers), and; Economic Development (an improved Highway 38 will enhance viability and competitiveness of rural

“ As a disabled  
veteran...

...I have to dodge severe ridges in the  
road to get to the County office to  
pay my taxes. Our small but highly  
utilized town and roads need upgrades  
badly. *Mike, Tipton resident, from the  
attached letter of support* ”

America with more efficient movement of people and goods to and through Tipton).

**If left unimproved, the poor condition of the asset will threaten future transportation network efficiency, mobility of goods or accessibility and mobility of people, or economic growth** - Except for three blocks done over ten years ago, the conditions on the Highway 38

“ As an EMT...

...when transporting a patient to the hospital, every bump is felt in the back of the ambulance. When one is already in pain, feeling every bump doesn't help the situation. Lisa – Tipton resident, from the attached letter of support

corridor have not been completely modified in decades. Sidewalks, street amenities and lighting are much the same as they were over 25 years ago. The corridor makes its way through a combination of settings, including rural, commercial, residential, industrial, and the City's downtown. Therefore, Highway 38/Cedar St serves pedestrians, bikes, semis and other heavy trucks, large farm equipment, and personal vehicle traffic.

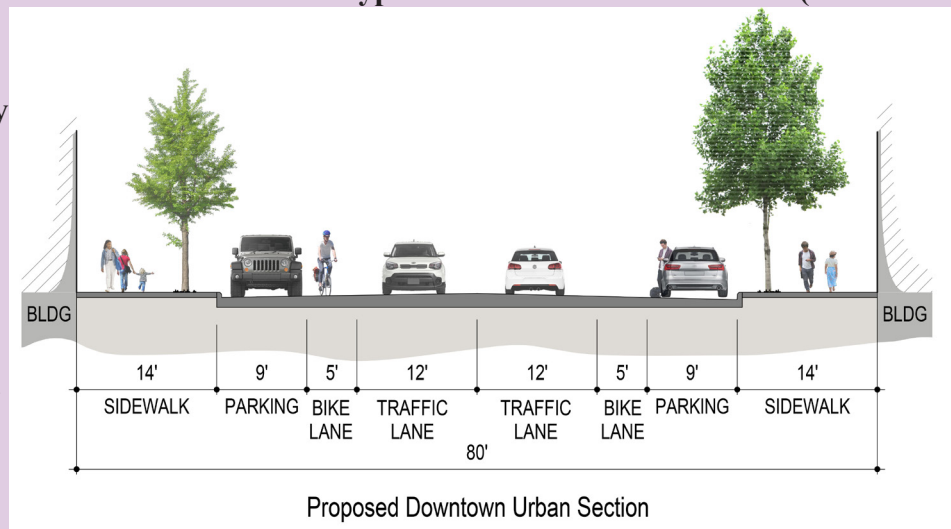
However, the corridor was not designed for these mixed uses. Sidewalks are narrow and intermittent. Except for the downtown, parking is prohibited along the corridor. Current parking conditions restrict pedestrian flow. The corridor

lacks crosswalks which threatens safety. And, there are little or no provisions for safe bicycle operation.

Brick manhole structures are failing and falling apart. Sewer backups are causing the need for sewer jetting (cleaning) and televising. Just last year the City spent \$30,000 on jetting and televising. While sewer jetting last year we found loose bricks and concrete chunks in the line. Extra time and money was spent to remove the foreign materials. City staff has found large voids in the soil directly under the traveled portions and center line of the roadway through the Highway 38 corridor in recent years. One of which was in front of Casey's General Store. The void was large enough to park a motorhome in, right under the center line. Old style manhole lids are obsolete, unsealed, and highly penetrable by storm water and very rough for automobiles. Monumental engineering, design, and planning efforts are underway all the needed improvements.

Project elements include new street pavement and resurfacing (specifically converting asphalt to concrete on South Street to 7<sup>th</sup> and 11<sup>th</sup> to 13<sup>th</sup> will add a lifespan of 30 years to the streets), replacement of curb and gutter, replacement of pedestrian curb ramps, replacement of sidewalks, repair and replacement of a 100 year old storm sewer main, repair and replacement of sanitary sewer, repair and replacement of

Typical cross section of Cedar St. (downtown)



water main, and traffic signal upgrades, replacement and addition of street lighting, and crossing conduits for fiber optic. All sidewalk and traffic signal work will be ADA compliant. Complete Street improvements will provide better functionality, improve mobility along this thoroughfare and help the City save money by matching roadway needs with its actual design. Proposed upgrades invest in existing infrastructure, help to minimize deterioration of the roadway, decrease maintenance time and maintenance costs, and enhance the community's quality of life.

Without the proposed strategic transportation investments, the City will have difficulty spurring economic development. Developers have begun to reclaim empty buildings, vacant storefronts and idle lots. However, this revitalization will not be fully realized if the community's multimodal transportation network does not work. Also, as seen in the letters of support from the manufacturing community, who rely on regular heavy truck traffic in running their businesses; the Highway 38 Improvements are critical in advancing this corridor and in enhancing the flow of traffic to these community partners as well as contributing to a regional transportation network in accessing Interstate 80 and US Highway 30.

**The project is appropriately capitalized up front and uses asset management approaches that optimize its long-term cost structure** – Please see the Grant Funds, Sources and Uses of Project Funds section to see how the project is appropriately capitalized. The City had a strategy for selecting this project as a BUILD grant candidate. The traveled portions of Highway 38 are in IDOT's jurisdiction. IDOT's portion of the project is paid by non-federal funds and serves as the match to the BUILD grant funds that will be used to cover the cost of the City's participation in the project. If the grant is awarded, the City's cost in the project will be for the engineering related to the City's project components. The City already has those funds as cash-on-hand by way of a successful local 1% Local Option Sales Tax levy (1% LOST) vote to help pay for projects like this.

**A sustainable source of revenue is available for operations and maintenance of the project and the project will reduce overall life-cycle costs** – Knowing the effects of heavy traffic and Iowa's weather on pavement, the goal has been to reduce overall life-cycle costs by beginning with the right type of pavement. From the start, the City wanted to lessen future O&M costs by pressing for the use of Portland Cement Concrete to replace as many areas of deteriorated asphalt as possible. While the middle 28-feet of Highway 38 are IDOT's financial responsibility, many people believe it's the City's. As those asphalt areas have deteriorated, the City has received complaints about the rough surface, patches, the unsightly presence of rubber crack-filling material, and the sand that's placed over it. The City knows that the public will be much happier with the durability of concrete because of how well a portion of Highway 38 (10th Street to 7th Street) has held-up since it was paved with concrete in approximately 2010. And, since the City's parking lanes have to match whatever IDOT uses as pavement, PCC is desired.

With new pavement over new underground utilities, there shouldn't be an immediate need for a lot of O&M. But, going forward, Tipton is a full-service community. The City has separate utilities or municipal enterprises for ambulance, fire, electricity, natural gas, garbage/recycling, water, wastewater/sewer, and storm sewer. Each of the utilities has a presence within the City's share of the Highway 38 corridor. Each uses the corridor in some form or fashion and is financially responsible for whatever infrastructure or impact that it has within the corridor. And, as public utilities, each utility pays an annual 5-7% "payment in lieu of taxes" (PILOT) for its use of the public right-of-way. Therefore, a portion of what each is assessed can be used for the City's future O&M costs related to Highway 38. Further, the City receives an annual allocation of Road Use Tax (RUT) from the State of Iowa. It, too, will be available for future O&M. Future 1% LOST revenue will also be available.

These are all sustainable sources of revenue that are available for the future operations and maintenance of the project area.

In this application, we've even tried to think of little things that can have a big impact.

For example, everyone likes the look of newly-painted crosswalks and parking stalls just before the opening of school in August. But, no one likes the way that those lines look as they quickly fade after only a few weeks. Our project proposes the use of inlaid pavement markings that will last without the cost and wasted time needed to repaint them every year.

Our county has only two sets of traffic signals; Tipton's is the oldest set. It's at the intersection of Hwy 38 and 5th Street. Our project proposes to make the signals ADA-compliant and more reliable when traffic is and isn't present on 5th Street. But, it also proposes to make the signals remotely controllable by emergency vehicles.

The City has hired a consultant to evaluate the viability of partnering with a private telecommunications company to do a broadband project. For our citizens, it could provide faster and more reliable broadband opportunities. It would also allow the City to pursue a future project in Advanced Metering Infrastructure (AMI.) But, no one likes the look of an open-cut across a newly paved street. So, our BUILD project proposes to put conduit crossing points at each Hwy 38 intersection.

“ As a business owner...

...of a bakery on Highway 38, we see a lot of vehicle and pedestrian traffic. I have witnessed emergency vehicles having difficulty pulling onto Highway 38; improved traffic lights that the emergency department can control would make it a lot safer for all involved. *Tiffany, Tiffany's Tipton Bakery, from the attached letter of support* ”

Tipton has considered how the project's long-term operations and maintenance costs will be met. Economic growth along the corridor will create significant additional fees and tax revenues that can offset costs associated with maintaining the Highway 38 corridor infrastructure. In the residential areas of Highway 38, the new infrastructure will motivate property owners to use the City's tax-exemption program and .5% interest rate revolving loan fund to improve their homes. Businesses along the corridor will be motivated to use the City's tax-exemption program, grant fund, and .5% loan fund to make improvements to their properties. Over time, this will increase property values and, in turn, property tax revenue. These improvements will also see increases in the sales tax revenue that we receive from the 1% LOST program.

These are three other areas of impact:

- The City's various utilities will see a higher utilization along the corridor. As they are used more, the PILOTs that they pay the City will increase which will increase the revenue available for infrastructure O&M.
- For the upcoming City fiscal year, IDOT estimated that Road Use Tax revenue will be \$128 per capita. Typically, the per capita amount goes up over time. As the City's population increases, our RUT revenue will increase.
- The City has about 60 available acres in its industrial park. The price is \$40,000 per acre or potentially \$2.4 million in available land. Highway 38 is the gateway to these acres. There's also available property on the other side of Highway 38. The improvements and the installation of an abutting trail and its connection to another planned trail will only cause these land values to increase.

**The project will maintain or improve transportation infrastructure that supports border security functions** – Not applicable.

**The project includes a plan to maintain the transportation infrastructure in a state of good repair** - The Highway 38/Cedar Street corridor’s pavement was last maintained in 1995 and is scheduled for maintenance approximately every 15 years, with the next maintenance effort scheduled for 2025 (the following date would be 2040). Given that the project includes extensive roadway rehabilitation and streetscaping (reflected in the costs), this maintenance can be deferred until 2038 (15 years after project completion). When discounted over 30 years (at 7% rate), this deferred maintenance provides a modest benefit of \$863,100.

Anticipated Maintenance (No build) (2021 \$)	Anticipated Maintenance (Build) [1] (2021\$)	Project Maintenance Benefit (Build-No Build) (2021\$)	Maintenance Benefit Discounted at 7%
\$3,364,395	\$1,923,104	\$1,441,291	\$863,092

### (c) Economic Competitiveness

*“With updates and improvements, come business and prosperity.”* That was a quote from a young entrepreneur who recently purchased a business building in downtown Tipton. Originally from Tipton, she has already remodeled the loft area on the second floor and she plans to come back to Tipton and open a business on the main level. This mixed-use concept is what Tipton is promoting.

Tipton’s corridor comprehensive plan includes more than just the reconstruction of Highway 38 and the replacement of its underlying water, storm, and sanitary sewer facilities. BUILD funding will also complement other efforts in Tipton to focus investment on our downtown, plus other commercial and industrial businesses along the corridor, such as:

- Encouraging mixed use and the re-use of vacant and underutilized land;
- Implementing development principles that encourage alternate modes of transportation, connectivity to other uses and walkable neighborhoods;
- Preserving neighborhoods while enhancing the community quality and character.
- Downtown Development Plan initiatives:
  - Continued restoration of the historic Hardacre Theater;
  - Upper-story apartment development, including a major public-private investment in upper story apartments at the Hardacre Theater;
  - Creative placemaking efforts such as murals, Freedom Rock (pictured, right), planters, decorated haybales, blade signs;
  - Greenspace development opportunity including charging stations and solar devices;
  - Speaker system for music.



The proposed BUILD project will help to unlock Tipton’s

economic potential. Specifically, the Highway 38 Improvements will:

**Decrease transportation costs and improve access, through reliable and timely access to employment centers and job opportunities** - The Highway 38 Improvements will help residents and commuters avoid the cost of owning a car, particularly low-income households in Tipton. According to AAA, owning and operating a car (medium Sedan) costs \$8,384 per year (AAAs 2018 Your Driving Costs study). Each vehicle that the project helps an individual avoid owning or using means significant funds are available for other expense. Providing transportation choices such as improved transit, better walkability and bike lanes helps residents decide to forgo owning a personal vehicle and generates significant local purchasing power.

The project area is a key freight corridor in rural Iowa. Highway 38 is in the middle of Cedar County and one of the primary north-south highway routes that links travelers to Interstate 80 to the south of Tipton connecting east to Davenport or west to Iowa City. The project corridor within the city follows Cedar Street, joining US Highway 30 to the north to Cedar Rapids. Highway 38 is an important conduit which connects visitors, goods, and employees to these bigger urban areas.

Highway 38 also connects important commercial and industrial districts within the city and provides access for hundreds of outbound and inbound loads on a weekly basis. Key outcomes of the proposed transportation improvements in regard to economic competitiveness are to:

- Connect both parts of the city;
- Connect residents and people considering Tipton as a place to live, to good-paying employment and entrepreneurial opportunities;
- Improve access through the addition of bicycle lanes to downtown area and downtown businesses;
- Improve the movement of goods and people in accessing Highway 30 and Interstate 80, and;
- Create jobs along the Highway 38/Cedar Street Corridor.

Highway 38 also runs through the heart of downtown Tipton. All of downtown, the courthouse, city police and fire, grocery, pharmacy, health clinic, tire and auto store, gas stations, restaurants, coffee, bakery shops, home/farm/auto store, lumber company, car dealership add a strong civic presence and employment base to the project corridor. These 40+ downtown businesses rely on foot traffic and customers travelling by car. Thousands stop in downtown Tipton throughout the year while on a charter bus, motorcycle club, car clubs, or passing through our community travelling on Highway 38. Some visitors also come from nearby communities or far away. One visitor from South Carolina stopped while on her way to another destination and stated, *"I used to live in Marion, IA and come home several times a year to help my parents. I drive to the Davenport area for business and I purposely take Highway 38 so I can shop and eat in Tipton. This is a neat town!"* A father and son travelling from Tennessee stopped and had their picture taken by the 15' bike mounted in the downtown green space. These travelers stated, *"Wow we had to turn around and have our picture taken by the bike!"* Then, on their visit, they proceeded to frequent several stores.



Tipton Chamber sponsors several special events annually that draw hundreds to thousands of people to our community which creates great foot traffic to our downtown businesses. Not only does the Chamber sponsor several events per year but the Old Cedar County Jail, Cedar County Museum and Prairie Village and other Tipton organizations host annual events. Tipton's Heartland Sports Complex host weekend club tournaments that brings hundreds of people to Tipton. The Highway 38 Improvements will provide for efficient movement of workers, goods, and consumers to this bustling community.

There are also companion projects that are separate from the Highway 38 Improvements project that will impact the corridor area:

- CDBG application for owner-occupied housing rehab.
- CDBG application for water/sanitary sewer main replacement.
- Tax-exemptions for new taxable value: residential, multi-family, commercial, and industrial.
- Low-interest (0.5%), low match requirement loans of up to \$10,000 for single-family, owner-occupied homes.
- Low-interest (0.5%), low match requirement loans of up to \$10,000 for commercial and industrial property owners.
- Tax-increment financing grants of up to \$7,500 for façade and other types of commercial and industrial improvements.

**Improve long-term efficiency, reliability or costs in the movement of workers or goods -**

Complete Street improvements will help to grow foot traffic and bicycle use in the area. This area is prime for revitalization; approximately 146,300 square feet of commercial space is available immediately. Further, about 2.9 million square feet of shovel-ready commercial-industrial land abuts the Corridor, ready for development. Traffic calming measures will be implemented in the downtown areas by reducing the through traffic lane width using pavement markings and adding a bike lane. South of downtown, in the reconstruction area, the overall street width will be reduced to eliminate excessively wide travel lanes yet maintaining parking. These measures will encourage drivers to slow down and appreciate future commercial, retail and outdoor café opportunities in the downtown area of the project corridor. The corridor will be attractive for entrepreneurial opportunities; again supporting all five key indicators of rural prosperity in the "Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity." Land values will also rise along the improved corridor. According to the BCA, undiscounted the total property value benefit is approximately \$7.99 million.

The surge of economic development that BUILD funding will help Tipton to unleash will also create significant local fees and taxes. New economic development on Highway 38 is expected to generate new annual City tax revenues, but with the COVID-19 pandemic it is difficult to estimate this increase. Several development projects in Tipton with all directly abutting Highway 38 are contingent on transportation improvements, including the remaining 60 acres in the Tipton Industrial Park, future residential development in the 15-20 acres across from the Industrial Park, a 5-acre area in north Tipton capable of a multifamily housing development, and parking lot/entry-exit improvements such as at the regionally famous Tipton Locker. However, developers of these projects have indicated that they will not proceed without better transportation access and/or ADA access. Please see the letters of support located at <http://www.tiptoniowa.org/hwy38-road-project/default.aspx> for evidence of this claim.

In addition, the proposed BUILD project will help connect unemployed and underemployed workers into downtown and industrial park job centers and educational opportunities. ADA compliance measures will help connect disadvantaged and disabled Tipton residents. This is critical to an economically-distressed portion of the city where residents may choose to walk or ride a bike to work. The City of Tipton does not have local mass transportation services. The Sissel - Behrle Memorial Trail will connect the center of town to employment at the south industrial park businesses.

**Increase the economic productivity of land, capital, or labor** - Tipton Economic Development Corporation (TEDCO) owns the 85-acre Tipton Business Park as well as options on an adjoining 158 acres that is available for large development projects. According to the TEDCO board president, *“one of the major considerations businesses make when looking to relocate or set up is the transportation logistics to the closest interstates and/or bodies of water to move their products or access to their business. The Highway 38 improvements would be a huge boost to our marketing advantages over other communities of our size for our industrial park and our downtown businesses.”* The City Council and TEDCO are also involved in façade improvements in the downtown area and the revitalization of the Hardacre Theater (one of the many buildings that represents the unique historic fabric of the community). The proposed project will increase the economic productivity opportunities in the Tipton Business Park and other areas in the project corridor with improved access and traffic flow. In 2019, Garuda Farms Herbs & Vegetables built a \$350,000.00 two bay, four season commercial greenhouse that grows green leafy vegetables and a variety of herbs for commercial retail in the Industrial park. The owner plans on a future expansion to four bays and plans to hire three full-time and two part-time workers, plus two delivery drivers. Please see the project website for a letter of support.

The proposed project will also provide access to high-speed internet service with the installation of conduit infrastructure in conjunction with the project. The City is partnering with a local provider to increase coverage of fiber, internet, and cable tv. This project aspect also supports e-Connectivity key indicator for rural prosperity in America, as mentioned earlier.

**Help the United States compete in a global economy by facilitating efficient and reliable freight movement** - Finally, the Highway 38 Improvements project will help the United States compete in a global economy because the project contributes to an improved efficient transportation system with its proximity to I-80 and US Highway 30. As mentioned previously, these two major roadways will undergo major reconstruction in the next five years and although Highway 38 will not be an official detour, it is expected that travelers will find their own alternative route and Highway 38 will be a detour, whether the Iowa DOT designates it or not.

Highway 38 is a vital connection for several Tipton factories to export their products nationally and worldwide. Cummins Manufacturing moves freight approximately three times per week and uses Highway 38 to connect to either Highway 30 or Interstate 80. Their products go all over the United States and overseas (Mexico, China, Japan, and Germany). Cummins manufactures parts for hydraulic valve and pump components, agriculture, automotive, construction, gun manufacturers, marine and recreation. CDS

Global ships approximately five times per week. CDS employs 125 people and their services include printing, personalization and presorting of acknowledgements, bills and renewals. CDS manages more than 1,000 print and digital magazine titles. Products are shipped all over the United States and Canada. These companies rely on Highway 38 to get their product out efficiently.

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Xerxes employees 55 and they manufacture underground and above ground fiberglass tanks. Between 8-10 loads leave this site per day. Those loads are primarily taken to the following States: North Dakota, South Dakota, Wisconsin, Minnesota, Michigan, Nebraska, Illinois, Indiana, Ohio, Missouri, Tennessee, Kentucky. Occasionally those loads are taken to Texas, Florida, Georgia, Louisiana and Colorado. Having Highway 38 is vital to this industry to move their product and they need a dependable corridor.

Cedar Poly is a full-service recycler and processes over 70 million pounds of material annually. Cedar Poly buys and sells plastic, paper, cardboard, and metal and has many processing capabilities including sorting and toll grinding. Twenty-five loads per day leave the recycling center on Highway 38 and connects to either 38 or Interstate 80. Cedar Poly also has between 20-25 inbound loads coming to their business every day and sell finished products all over the USA and they export to southern Asia and India. The product is loaded on the rail in Chicago and from there most go on ships located in Oakland, CA. The Highway 38 Improvements is critical to sustain needed infrastructure and help Tipton and the United States compete in a global economy.

After applying the capitalized travel benefit reduction, the property value benefit is expected to be \$7.99 million, to be spread (or divided) across two years, beginning in 2023. When discounted at 7%, the total property value benefit is approximately \$7.73 million.

Net Benefit (Build – No-Build) [1] [2]	Net Benefit (Build – No Build) Discounted at 7%
\$7,998,740	\$7,737,099

#### (d) Environmental Sustainability

The Highway 38 Improvements project will demonstrate how investing in pedestrian improvements such as walking and biking can generate multiple environmental benefits, including reduced dependence on foreign oil, curbed emissions, improved air quality, decreased stormwater runoff, brownfields redevelopment, smart growth, and green infrastructure enhancements. Each of these benefits will contribute significantly to the sustainability of the region and country.

In regard to environmental sustainability, the proposed project will:

#### **Reduce energy use and air or water pollution through congestion mitigation strategies -**

Making sidewalks and streets safer for biking and walking will increase the number of residents who use non-vehicular modes to commute to work and going to appointments. Shifting trips in the city from single occupancy vehicles to, walking and biking will significantly reduce fuel consumption. Those energy savings will generate meaningful reductions of carbon and other air pollutants. Bicycles are one of the more practical, cost-effective, and environmentally friendly options of transportation. They give off no emissions, require no car insurance or gas, very little maintenance, and only take up a small amount of parking. By cutting greenhouse gas emissions, future generations are protected. Bike racks will be located throughout the City to encourage the use of bicycles. High school students will now have the opportunity to bike or walk to school on a fully compliant recreational trail.

The Sissel – Behrle Memorial Trail extends to Tipton’s Aquatic Center, Athletic Track, Ball Diamonds and Football field area. The ADA compliant route will promote non-vehicular attendance to sporting events and practices.

The trail segment along the south end of the Highway 38 Improvements project will use

excavation from the street reconstruction corridor to form the embankment for the trail. This material would otherwise be wasted.

Material to be milled from the asphalt pavement surface will be allowed for use as backfill and granular base in leu of new crushed material from a quarry reducing both construction cost and energy.

Vehicle detection added to the traffic signals at 5th Street will increase the green light time for higher volume through traffic thus reducing noise, air pollution, and fuel consumption from vehicle starts and stops.

**Avoid adverse environmental impacts to air or water quality, wetlands, and endangered species** - Tipton lies within the Mississippi River watershed and is connected by means of the Cedar River and Crooked Creek. During heavy rain events Tipton's sanitary sewer system overflows, having health and environmental impacts on tributaries of the Cedar River. Some of the storm water runoff from Cedar Street is able to infiltrate the deteriorated sanitary sewer system. During major storm events, overflow stormwater conveys some of the runoff directly into the river, along with untreated leaked sewage.

Unwanted storm water entering the sanitary sewer is a costly thing. It drives up budgets by having to treat extra flow that is not supposed to be there. Also, when it comes to engineering and design of a new treatment facility, you are now designing for the inflated flows rather than normal flows. This effect causes sewer plants to have to be oversized for the additional flows. Oversized plants are much more costly to operate and maintain. In arriving at the data for the BCA, the City has strong data that shows flow spikes and there is correlation with rain events. This base data includes all of Tipton, but the Highway 38 corridor was measured on a basis of total area. Itself is a percentage of the whole town. Applying that percentage to the total flow spikes would then narrow down better numbers for the corridor alone. In a similar fashion we looked at total sewer budget and divided that cost into the percentage of area to represent Highway 38 alone.

**Provide environmental benefits, such as brownfield redevelopment, ground water recharge in areas of water scarcity, wetlands creation or improved habitat connectivity, and stormwater mitigation** - Reducing the amount of stormwater entering the outdated sewer system is critical to mitigate this health hazard and improve the river's water quality. Tipton proposes to increase the storm water capacity and upgrade an outdated sanitary sewer system. This improvement will greatly reduce the flooding that regularly occurs on East and West 5<sup>th</sup> Streets in the project corridor. The new design concept and engineering will incorporate additional storm intakes at 5<sup>th</sup> Street. Additional piping and rerouting will convey storm water south rather than east & west. This is seen as an impactful opportunity to reduce flood potential in adjacent neighborhood areas to the east and west. On East 5<sup>th</sup> Street, City staff has witnessed cars stalled out in water that was too deep to navigate. On West 5<sup>th</sup> Street, water flooding to the point it leaves the street area and enters into garages and house basements has also occurred.

Sanitary sewer maintenance needs will be greatly reduced and this will require less man hours. Less jetting and televising will be needed. Less flow to treat at the plant. Less call ins and claims from the public regarding flooding and property damage. When discounted over 30 years (at 7% rate), these improvements are expected to provide a \$3.76 million benefit.

Environmental Benefit Actual (2021 \$) [1]	Environmental Benefit Discounted at 7%
\$9,587,616	\$3,767,126

Lack of trees increases the temperature of the developed area relative to its rural surroundings and discourages walking during hot weather because of a lack of shade. Increasing the tree canopy along Cedar Street will not only improve the aesthetic character of the corridor but also improve local air quality by reducing ozone and particulate matter pollution. The city of Tipton operates an aggressive street tree program. Street trees affected by construction will be replaced with suitable diversified species. Additional trees will be planted where practical.

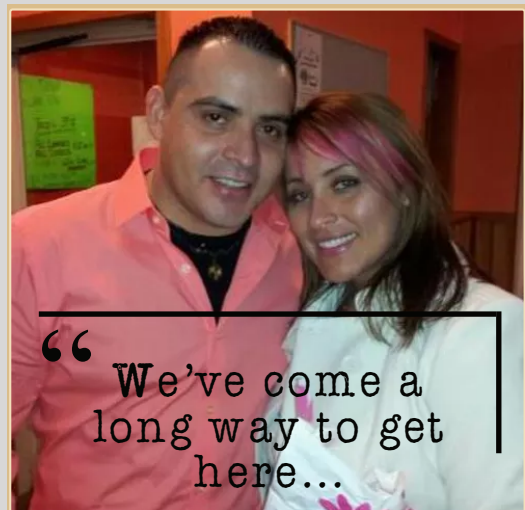
### (e) Quality of Life

The Highway 38 Improvements project is the result of discussions with elected officials, Iowa DOT and ECIA (Tipton's council of governments) staff, and the City's engineering consultant to address the barriers holding Tipton back from offering visitors and residents a great quality of life. The project's elements were identified through a series of public input opportunities and open meetings between the City and above partners. A recent survey asking citizens about their thoughts on if the DOT should resurface Highway 38 from Highway 30 to I-80, revealed that this project in Tipton is needed and wanted through comments like, "driving through town, the road is broken and ugly," "just drive on 38 through city limits of Tipton; terrible. It needs to be done now or in the future – no way around it," "downtown 38 Tipton is rough," "Hwy 38 is an important connection that the surrounding communities rely on. It is in desperate need for maintenance," "Cedar St. is tearing our cars apart. The trucks have no problem. They are the ones doing all the damage." Over 60 letters from citizens in favor of the project are located at <http://www.tiptoniowa.org/hwy38-road-project/default.aspx>. Other key concerns included:

- The lack of crosswalks which threatens safety of pedestrians;
- The lack of adequate ADA-access to sidewalks hinders the elderly and disabled from visiting the downtown area;
- The sidewalks that do exist are narrow and cracked;
- Access to the internet through a broadband network is largely non-existent;
- Better lighting, benches and street furniture would make the area more appealing for pedestrians; and
- Safe bike routes throughout Highway 38 are important for making biking a viable transportation option.

Tipton's project will improve the quality of life in the region by:

**Increases transportation choices.** The project was conceived to provide safe, reliable and economical transportation choices. Complete Streets and pedestrian improvements along Highway 38 will provide safe opportunities for walking and biking. ADA compliance across the corridor will provide easier opportunities for seniors and persons with disabilities to reach their destination. The project is expected to significantly



...and initially moved to the Iowa City area where we started our first restaurant. We then moved and settled our families here in the heart of Tipton. We knew we wanted to bring our authentic Mexican cuisine here – we based our recipes on family ones from our hometown in Mexico. We have been kindly welcomed to this area. *The Pacheco families*

decrease household transportation expenses. Expanding transportation choices, will allow more Tipton households to forego car ownership or maintain one vehicle rather than two or more. For residents with low- and moderate-incomes in particular, the cost of car ownership is a significant economic burden.

**Expands access to essential services.** BUILD investment is critical to helping connect people with employment, education, health care, and other important destinations. The economic prosperity of a community is dependent on its ability to move people and goods. However, that mobility is constrained in Tipton by narrow sidewalks, a wide roadbed, long crosswalks, illegal left turns, poor ADA compliance, traffic signal breakdowns, and limited bike accommodations. The proposed improvements will enable rural Tipton residents to safely move about the community and save time and money along busy streets. The proposed project will also allow for concurrent installation of fiber optic conduit crossings as an expansion to essential service to this low-income community in an effort to bridge this digital divide.

**Improves connectivity for citizens to jobs, health care, and other critical destinations.**

Highway 38 is the primary north-south thoroughfare through the city of Tipton. Not only does the project provide for easier, safer, and smoother access to the over 55 businesses along the project corridor, it also improves connectivity to the downtown district and will improve connections to health care on the south end of town, to jobs in the industrial park on the south side and throughout town, and other critical destinations. The project, with its fiber infrastructure component, also will improve e-connectivity, especially for those who cannot afford high speed internet.

The Highway 38 Improvements project also increases recreational amenities through trail development. Sissel and Behrle Memorial bike/walking trail is being designed along the South of Highway 38 to Tipton's City Park. Army Spc. Aaron Sissel and Army Spc. David W. Behrle, both graduates of Tipton High School, were killed 3 ½ years apart in the Iraq war. This trail, which honors their valiant service, will connect with the future Crooked Creek Recreation Trail offering much enjoyment to outdoor enthusiasts and residents wanting to walk, push their children in strollers or ride their bikes in a safe area. It has been proven that any trail, long or short, is an asset to a community. It provides free recreation for people of all ages and fitness levels and offers opportunities to study nature or local history. Plans are also being formed for a trail to connect to Tipton's west end of town by the elementary/middle school.

Travel time savings will also contribute to quality of life. Less time spent behind the wheel will provide residents with greater opportunities to enjoy leisure activities. Approximately 85,877 vehicle hours will be saved by cars and 5,957 vehicle hours will be saved by trucks annually due to improving the corridor. When discounted over 30 years (at 7% rate), this travel time savings equates to a \$19.8 million benefit.

Vehicle Hours Savings Actual (2021 \$)	Travel Time Savings Discounted at 7%
\$48,038,846	\$19,870,505

## **(2) Secondary Selection Criteria**

### **(a) Innovation**

#### **(i) Innovative Technologies**

The project will facilitate the expanded coverage in Tipton for access to high-speed internet service by concurrently installing conduit and sleeves for future fiber installation. This also

supports the first key indicator of rural prosperity, e-Connectivity for Rural America, outlined in the “Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity” in not only interconnecting Tipton but connecting Tipton to the rest of the world.

Traffic signal preemption will provide for the normal operation of traffic lights to be preempted in cases such as manipulating traffic signals in the path of an emergency vehicle, halting conflicting traffic and allowing the emergency vehicle right-of-way, to help reduce response times and enhance traffic safety. Upgrading the traffic signals to include remote wireless traffic detection will reduce the delay at signals and improve safety on the corridor and reduce emission on the corridor. The hardware and software installed at the traffic signal will implement cybersecurity elements to protect the traffic signal system from hackers.

### **(ii) Innovative Project Delivery**

This project is on path for completing the NEPA process. A cultural resources evaluation was performed through the Iowa Office of the State Archeologist in 2019 concluding with the recommendation that no further archeological surveys be required. Construction will be on existing City and State right of way. Concurrence will be issued by the Location and Environment Bureau of the Iowa Department of Transportation to complete the NEPA process.

### **(iii) Innovative Financing**

The City has been planning for the Highway 38 Improvements for a long time. This project is also important to the community as seen in some of the comments from the survey in the Quality of Life section and the letters of support located on the project website. It’s important to note that the City’s portion, \$265,000 cash match, is coming from local option sales tax revenue in which 84% of voters decided to approve sales tax for main street/sewer infrastructure improvements.

### **(b) Partnership**

Tipton has worked with many key partners to develop the project. The City formed a team of local, regional and state stakeholders that includes the City of Tipton, Tipton’s Elementary and Middle Schools, the Tipton Chamber of Commerce, Tipton Economic Development Corporation, East Central Intergovernmental Association, Iowa Department of Transportation, Regional Planning Affiliation Region 10, local property owners, and residents. Representatives of these organizations attended meetings and public input sessions and provided feedback on proposed transportation solutions.

Partners crucial to the implementation of the proposed BUILD elements include:

- City of Tipton – will administer the BUILD project and has secured Iowa DOT funds in the amount of \$3,349,068.
- Iowa Department of Transportation – will work with the project construction as Highway 38 is a State highway.
- Regional Planning Affiliation Region 10 (Serving Benton, Cedar, Iowa, Johnson, Jones, Linn, and Washington Counties) – will be involved in the planning of the project. (Please see <http://www.tiptoniowa.org/hwy38-road-project/default.aspx> for a letter of support from the RPA.)
- East Central Intergovernmental Association (Regional Council of Governments, serving Cedar, Clinton, Delaware, Dubuque, and Jackson Counties) – will help administer the grant if awarded and is also involved in other community development

initiatives in Tipton.

- Tipton Economic Development Corporation – will help in filling vacant lots and buildings on Highway 38/Cedar Street.
- Tipton’s Chamber of Commerce and Development Commission – will participate in the project implementation, including sharing information with community residents and business owners.
- Cedar County Board of Supervisors – will help coordinate detour routes that go around city.
- Elementary and Middle Schools – will engage in efforts to calm traffic and improve safety near the Schools.
- Cedar County Bicycle Coalition – will work with the City on developing a bike trail system that includes Highway 38.
- Local Developers – BUILD investment along the Highway 38 Corridor will be leveraged with revitalization efforts of private developers.

The project enjoys strong intergovernmental support from Mayor Bryan Carney, Tipton School Superintendent Jason Wester, Tipton Development Commission President Jim Reeve, the Cedar County Board of Supervisors, Iowa State Representative Bobby Kaufmann, Iowa State Senator Zach Wahls, United States Representative Dave Loebsack, United States Senator Charles Grassley, United States Senator Joni Ernst, and representing the administration of Iowa Governor Kim Reynolds: Iowa Department of Transportation Director Scott Marler and Iowa Economic Development Authority Director Debi Durham. (Please see <http://www.tiptoniowa.org/hwy38-road-project/default.aspx> for letters of support of the project.)

## V. Environmental Risk

### (a) Project Schedule

Tipton can begin the proposed Highway 38 Improvements project quickly upon award of a BUILD grant and all funds will be spent expeditiously. The project will easily meet the deadline to obligate funds by December, 2021. As previously stated, the City



and design team have been working on this project since 2017. Design concepts have been completed and ongoing public input has ensured that the surrounding community is supportive of this project. The City consultant, IIW Engineers, has completed the topographic survey and completed the preliminary design on May 15, 2020. NEPA approval is on track with cultural investigations already completed, and a categorical exclusion anticipated due to the project limits encompassing existing City and DOT right of way. Final design will be completed by October 2020. The Iowa Transportation Commission has committed match funding for this project by including it in their 2020-2024 Iowa Transportation Improvement Program. This project is currently programmed for bidding through the Iowa DOT letting system in January 2021. The completed information and details can be seen at <http://www.tiptoniowa.org/hwy38-road-project/default.aspx>. The proposed budget is based upon consultations with contractors and previous experience with Compete Streets/streetscape and utility improvements. Contingency costs have been built into the project's budget.

Tipton has the technical capacity to implement the proposed scope of work, as demonstrated by its on-time, on-budget construction of similar public works and street projects. The City will hire a consultant to perform project management, inspection and documentation as required for federally funded projects. The project will be overseen by Tipton Public Works Director Steve Nash, who has extensive experience managing public infrastructure projects.

Tipton has an exemplary record of managing federal grants, having received numerous FEMA and other federal funding over the years. Key to this effort is the development of a detailed work plan with clear milestones and responsibilities. Performance measures will be established in order to track progress. The City has never been cited for an adverse OMB Circular A-133 audit finding and has never been required to comply with "high risk" terms or conditions under OMB Circular A-102. Please see the Grant Funds, Sources and Uses of Project Funds section of this narrative for evidence of the City's financial capacity in the immediate availability of matching funds and a complete funding package.

The project areas are primarily located in the public right-of-way. Only minor temporary and permanent easement acquisition is anticipated during the project period. Tipton has evaluated whether any aspects of the natural, social or economic environment would be affected by the project. As the activities that comprise the project are replacement of existing facilities, no impacts are anticipated.

Planned and proposed development in the community is expected to strengthen the City's finances. BUILD funding is expected to spur significant investment. This economic growth will create significant additional fees and tax revenues that can offset additional costs associated with maintaining the proposed infrastructure.

### **(b) Required Approvals**

**Environmental Permits and Reviews** - Tipton will be working with the Iowa Department of Transportation to advance the proposed project's readiness. A Cultural Resources Evaluation performed by the University of Iowa Office of the State Archeologist recommended that no further archeological surveys be required. The NEPA process will not take much time as the project is in existing right of way and is anticipated to get a Categorical Exclusion. Tipton fully expects this project to be compliant with all regulatory requirements and to pose no adverse impacts on historic resources. The City expects a final Categorical Exclusion decision for the project by mid-2020.

The project is well known to the public due to outreach that city conducted on this project. The public is very supportive of this project and will not have problems during the NEPA process.

**State and Local Approvals** - Tipton needs to get permits from the Iowa Department of Transportation for the signalization improvements, for work-in-ROW, and for utilities accommodation. Permits from the Iowa Department of Natural Resources will be needed for water main and sanitary sewer design/construction, and for storm water activities. Representatives from the state have indicated that they will support this work and will move expeditiously to complete permitting requirements.

Other project components – ADA sidewalk improvements, benches and street lighting – will take place on land owned or controlled by the City. Tipton will issue a building permit upon completion of environmental and site plan review.

**Federal Transportation Requirements Affecting State and Local Planning** - Upon approval of the BUILD grant, the project needs to be amended into RPA 10 Transportation Improvement Program (TIP) and Iowa's 2020-2023 State Transportation Improvement Program (STIP). The City of Tipton has already had discussion with RPA 10 on how to accommodate the process. The RPA 10 will be amending the project into TIP and STIP at monthly RPA 10 meetings.

### **(c) Assessment of Project Risks and Mitigation Strategies**

Tipton BUILD project is both timely and low-risk. The improvements are located almost entirely within existing right-of-way. Only minor temporary and permanent easement acquisition is anticipated.

- NEPA delays: The project is within Iowa Department of Transportation Right of Way hence the project is subject to receive Categorical Exclusion as the projection is not using any undistributed land. The project will need some minor temporary and permanent easement acquisition which will not affect the project schedule. Tipton expects a final Categorical Exclusion decision for the project by mid-2020.
- Cost overruns: Contingency costs have been built into the budget.

## **VI. Benefit Cost Analysis**

The Highway 38 Improvements is a proposed Complete Streets project for the city of Tipton, Iowa. The project is expected to help revitalize Highway 38, also known as Cedar Street in town, while improving safety for motorists and pedestrians through road diet/traffic calming enhancements. In addition, the project's sanitary sewer upgrade will provide substantial benefits by reducing the overall burden placed on the City's existing sanitary sewer system. The project's costs and benefits are documented below and the assumptions used in the calculations can be found in the Excel Workbook in the grants.gov application package and also on <http://www.tiptoniowa.org/hwy38-road-project/default.aspx>.

The project will also connect to the regional bike pedestrian trail system that provides access to recreational centers within Cedar County, Iowa. These diverse opportunities are expected to contribute to \$37.9 million in benefits when discounted at the recommended 7% discount rate.

“As your United States Senator...

...it is an honor to ensure both our rural and urban Iowa areas are considered for federal grants to better our communities and the services provided....I appreciate the detail you provided to demonstrate how these grant funds would be utilized toward the Highway 38 improvement project, including a memorial trail honoring the first two Tipton service members to give their lives serving in Iraq.

*Joni Ernst, United States Senator, from the attached letter of support*”

A Summary of BCA results are listed below:

Net Present Value w/ 7%  
Discount Rate

- Net present value of costs: \$8.25 million
- Net present value of benefits: \$37.9 million
- **BC Ratio: 4.59**

Benefits	Total Benefits Undiscounted	Total Benefit Discounted at 7%
Value of Travel Time	\$48,038,846	\$19,870,505
Vehicle Operating Benefits	\$4,131,956	\$1,709,120
Crash Reduction Benefits	\$5,159,726	\$2,134,242
Environmental Benefits	\$9,587,616	\$3,767,126
Resilience Benefits	\$4,274,636	\$1,825,852
Economic Competitiveness Benefits	\$7,998,740	\$7,737,099
Maintenance Benefits	\$1,441,291	\$863,092
<b>Sub Total</b>	<b>\$80,632,812</b>	<b>\$37,907,036</b>

The table on the next pages provides an overview of the current conditions along the project corridor and summarizes some of the project's elements and associated benefits.



“Hwy 38 is a busy artery highway...

...passing through Tipton. A lot of cargo moves north and south because of I-80 located in Cedar Co. Crop and livestock inputs for farms in the area move on Hwy 38. Produce off of farms also travels on Hwy 38 to river markets in Muscatine, IA. Hwy 38/Cedar St. through Tipton is way beyond spot treatments and temporary repairs. *Kenneth – Tipton resident, from the attached letter of support*

”

Current Status/ No Build & Problem to be Addressed	Change to No Build/Alternatives	Types of Impacts	Population Affected by Impacts
Corridor has vacant or undeveloped parcels and areas that are considered blighted.	The project includes extensive streetscaping and accessibility elements.	Increased property values as a result of the extensive streetscaping and accessibility improvements.	Residents, business owners, and tourists will benefit.
Corridor has substantial amounts of impervious surface and rainfall currently runs off these surfaces into a Storm Water system. This excess water places substantial strain on the existing Storm Water system which is old and under capacity. The under-capacity storm water system is causing flooding as it is not able to handle excessive storm water.	Upgrade the storm water system.	Increase capacity of Storm Water system will reduce flooding and annual maintenance costs for the city.	The City and the environment will benefit.
Corridor has outdated Sanitary Sewer system and it exceeds its capacity. Cracks and breaks in old sewer lines are allowing storm water to infiltrate the system escalating flows to the point that the system is getting overloaded.	Replace the existing sanitary sewer system with a more capacity system.	Reduced burden on the sewer system, which will decrease treatment and maintenance costs and lower the capacity requirements for future pumps (which, in turn, will lower the replacement costs)	The City and the environment will benefit.
The Highway 38/Cedar Street Corridor is dangerous and experienced approximately 69 crashes from 2015 to 2019, 17 of which resulted in injuries.	The project includes traffic calming measures on Highway 38/Cedar Street.	Fewer crashes. Wider sidewalks and curb extensions will increase pedestrian network connectivity and reduce the crossing distances for pedestrians.	All populations will benefit.
The current road and sidewalk infrastructures are crumbling and is in need of immediate repair. However, extensive maintenance is not scheduled for the corridor until 2026.	The project includes substantial roadway and sidewalk rehabilitation.	Safer streets, better pavement quality, and opportunities for additional revitalization.	All populations will benefit.
Pedestrian and bicycle accessibility and mobility are limited by the aging infrastructure, lack of ADA Accessible Design, and overall gaps in the sidewalk network. These gaps not only present a safety risk for pedestrians while walking, they make them prone to accidents with ongoing traffic.	The project is accommodating bike and pedestrians by creating ADA accessible design and address gaps in the sidewalk network	Improve safety for pedestrian and bicyclists and attract more people to walk and bike in the corridor.	Pedestrians, cyclists, those who use wheelchairs or motor-assisted scooters will benefit from the traffic calming and ADA improvements. Students will greatly benefit by

Current Status/ No Build & Problem to be Addressed	Change to No Build/Alternatives	Types of Impacts	Population Affected by Impacts
			the increased mobility and safety.
Due to lack of pedestrian accessibility and limited mobility by the aging infrastructure, lack of ADA Accessible Design, and overall gaps in the sidewalk network discouraging travelers to use other modes of transportation.	The project addresses gaps in the sidewalk network.	Reduced vehicle miles traveled due to reduction in number of vehicle due to mode shift.	All populations will benefit.
Due to lack of pedestrian crossing the delay time through the corridor is more and instances of rear-end collisions is greater.	The project will address pedestrian crossings at the schools hence reducing overall travel time and increasing safety to the corridor.	Reduced vehicle hours traveled due to reduction in travel time in the corridor. Reduced traffic collisions.	All populations will benefit.

## In closing...

Cedar Manor is the largest nursing home in Cedar County. They are Tipton's second largest private-sector employer. They have 54 full-time and 20 part-time staff. They have 60 residents in skilled care, assisted living, and apartments. These employees are working hard, especially now during the pandemic, to get to work safely, stay healthy, and take care of these residents who contribute to the historic fabric of our county. The Highway 38 Improvements are critical to these employees (and ultimately the residents) in providing essential care and support in these strange times.



## Food for thought....



### Directions:

1.) Cream butter in an upright mixer until fluffy. Add dark brown sugar and white sugar and mix until thoroughly blended with butter scraping sides and bottom of bowl from time to time.

2.) Add eggs 1 at a time and mix until thoroughly blended, scraping sides and bottom of bowl from time to time.

3.) Add vanilla extract and add at low speed to prevent splashing. In a separate bowl mix the flour, salt and baking soda. Add the flour mixture to the butter/sugar mixture and mix at low speed until thoroughly blended, scraping sides and bottom of the bowl from time to time. Mix briefly at medium speed until completely combined.

4.) Add peanut butter chips and mix on low speed until thoroughly combined. Add toffee chips and mix on low speed until thoroughly combined. Add mini marshmallows and mix until thoroughly combined. Add chocolate chunks and mix until thoroughly combined. Refrigerate batter for a few hours or overnight until cold.

5.) Preheat oven to 350 degrees. Line baking sheet with parchment paper and drop heaping teaspoons of batter 2 inches apart. Bake from 12 to 18 minutes turning cookie sheet once during baking. Cookies are done when they are golden brown around the edges and soft (not bubbly) on top. Let cool on wire rack.

6.) Fill 2 cookies with frosting for the best sandwich cookie.

Peanut butter cream cheese frosting:

1-8 ounce cream cheese, softened at room temp

1cup creamy peanut butter

1 teaspoon vanilla extract

3 cups powdered sugar

2-3 tablespoons milk

Mix together cream cheese and peanut butter with mixer until smooth.

Add vanilla and powdered sugar 1 cup at a time along with milk and beat until spreading consistency.