

Centerburg Abbreviated Safety Application

Application Information

Sponsor: Village of Centerburg

Contact: Terri Wise, Administrator

Email: administrator@centerburgoh.org

ODOT District: 5

County: Knox

NLFID: MKNOXMR00024**C

Logpoint: 0.475-0.893

Construction Cost Estimate: \$555,600

Construction Funding Requested: \$500,000

Construction Fiscal Year: 2026

Emphasis Area: Intersection

Project Summary: The proposed project area is along Main Street (US36/SR3) at three intersections: Preston Street, Hartford Avenue, and Clayton Street. The existing signals do not have optimal visibility. There is an absence of pedestrian signal heads and push buttons. New mast arm supported signal heads with reflective backplates will improve visibility and safety in the Village's downtown. The addition of pedestrian control will provide safety for pedestrians within the Village's downtown, including visitors travelling the Heart of Ohio Trail. These improvements are proposed in conjunction with the recently submitted TAP application for downtown improvements. Funding from both the ODOT TAP and Safety program would be utilized for construction in FY2026.

Crash Summary: Based on crash data from 2020 through 2022, the signalized intersections include an average of 5.33 crashes per year with an 18.8% injury rate. Most accidents, 10 out of the 16, occurred on clear days. The most frequent crash type at the intersections is a rear end crash. This indicates drivers are not aware of stopped or slowing traffic within the downtown area at the signalized intersections. Out of the 16 total accidents reported, there was 1 pedestrian accident.

Existing Conditions

The existing signals at all intersections are supported along diagonal span wires connected to strain poles. The current signal heads lack backplates and have poor visibility. Due to the signals being supported by the span wire, some of the signal heads are not angled or spaced in accordance with ODOT's TEM and OMUTCD guidelines for signals. In order to align the signals properly for one approach, the signal is misaligned for another approach. According to 2019 turning movement counts, most vehicles at the intersections are traveling straight through the intersections along Main Street (US36/SR3) to continue out of the Village's downtown along the US36/SR3 route.

According to crash data from 2020 through 2022, at the signalized intersections along the Main Street corridor, there were 16 crashes for an average of 5.33 crashes per year and an injury rate of 18.8%. The most frequent crash type in the corridor was rear end crashes, which all occurred along Main Street on clear days. The rear end crashes are occurring due to the poor visibility of the signal heads. Lack of coordinated signals can also be increasing the crash rate. Currently there is 700 feet between Preston Street and Hartford Avenue and less than 350 feet

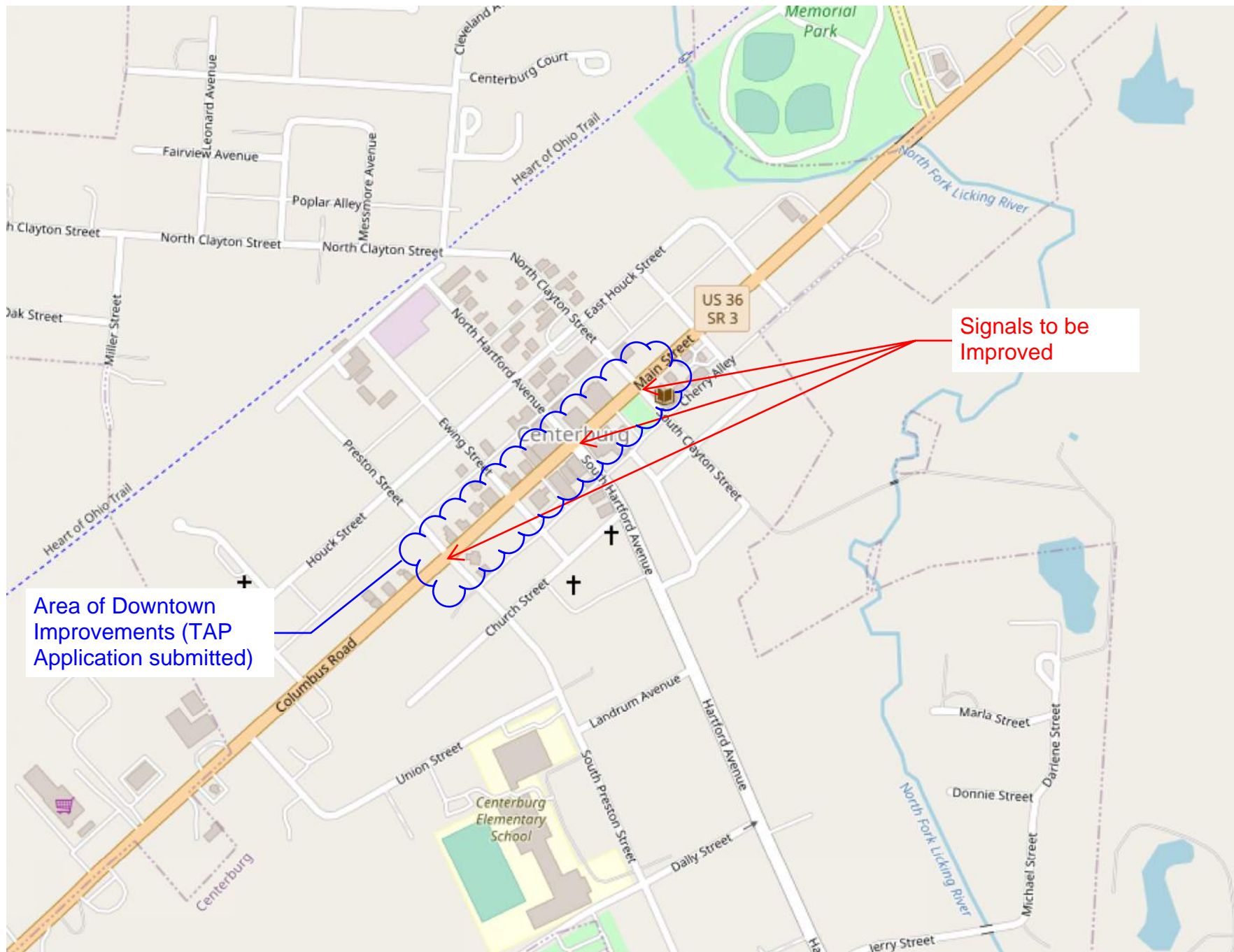
between Hartford Avenue and Clayton Street. The spacing and lack of coordination lead to congestion which could also be causing additional crashes.

There was a pedestrian crash along Main Street reported in the period studied. This accident resulted in a minor injury. The existing signal systems do not have pedestrian control. The intersections have crosswalk markings, but no other safety countermeasures. There are no existing pedestrian signal heads or push buttons. The result is an entire downtown corridor along a US and State Route without pedestrian activated crossings. The Heart of Ohio Trail runs parallel to Main Street (US36/SR3) within the Village of Centerburg. The trail intersects Clayton Street north of Main Street. Pedestrians visiting the downtown area coming from the trail enter an area lacking standard pedestrian safety features. Centerburg Elementary School is located on Preston Street south of Main Street. Young children walking to school do not have safety countermeasures at the signalized intersection north of the school. Due to lack of signal coordination and lack of pedestrian control, the sheriff routinely has to direct traffic during school arrival and dismissal times.

Proposed Improvements

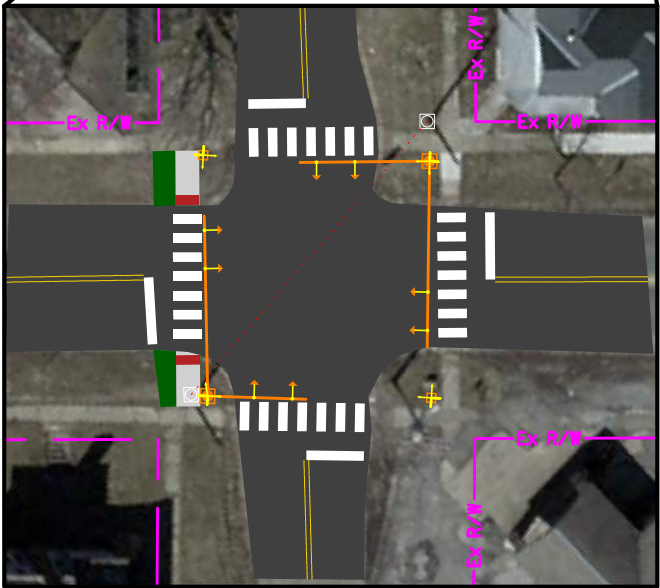
To address the poor visibility and lack of pedestrian control, new signal systems are proposed. The proposed signal systems would have mast arm supports and reflective backplates to address the poor visibility. The mast arm supports would also allow for signal heads to be properly aligned with the intersection approaches. The new signal systems would include pedestrian signal heads and push buttons to activate pedestrian phase movements. The pedestrian control would provide three intersections with safer crossings in the downtown. New pavement markings for crosswalks and stop lines would be part of the downtown improvements project with recently requested ODOT TAP funding.

The signal improvements accompanied with the downtown improvements detailed in the TAP application would provide a safer, more accessible, and enhanced downtown for the Village residents, patrons, and visitors. It would also provide safer travels and more enjoyable experiences for any pedestrians visiting the downtown as a stop along the Heart of Ohio Trail.

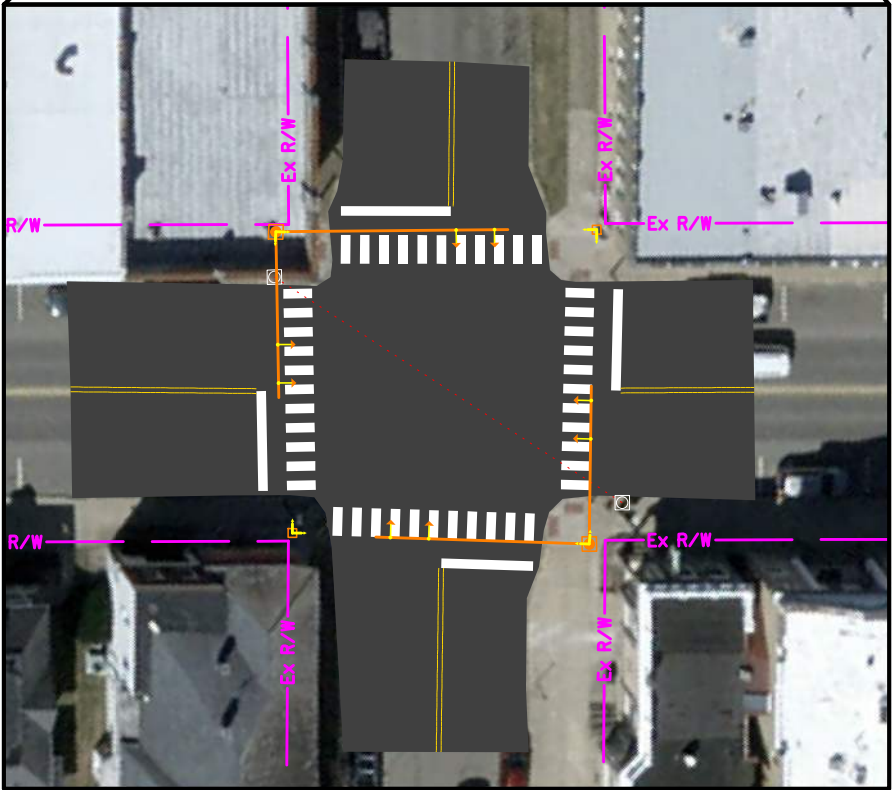


Abbreviated Safety Application
Signal Improvements in conjunction with Downtown Improvements
Village of Centerburg, Ohio

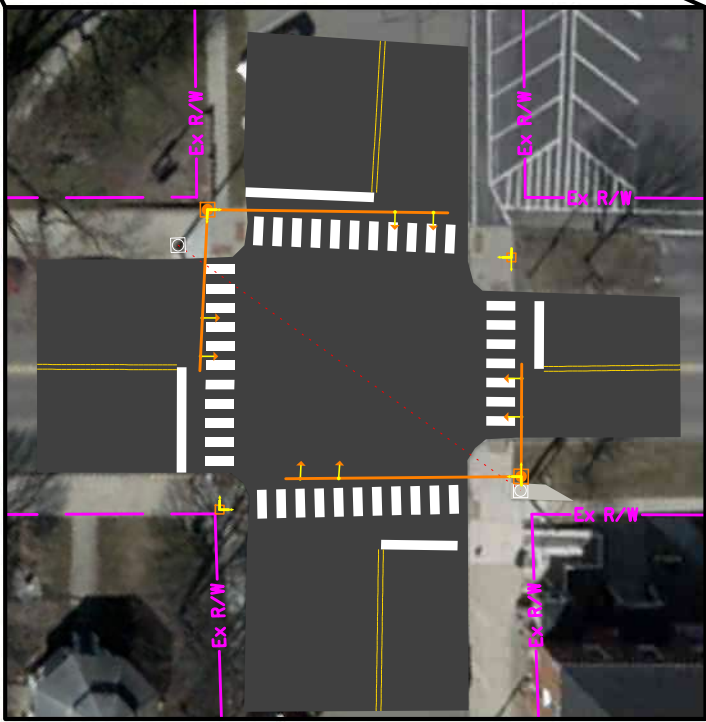
MAIN STREET (US36 / SR3) SIGNAL IMPROVEMENTS
ABBREVIATED SAFETY APPLICATION



MAIN STREET &
PRESTON STREET



MAIN STREET &
HARTFORD AVENUE



MAIN STREET &
CLAYTON STREET

EXISTING SPAN WIRE SIGNALS DO NOT HAVE OPTIMAL VISIBILITY. THERE IS AN ABSENCE OF PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS. PROPOSED MAST ARM SUPPORTED SIGNAL HEADS WITH REFLECTIVE BACKPLATES WILL IMPROVE VISIBILITY AND SAFETY IN THE VILLAGE'S DOWNTOWN. THE ADDITION OF PEDESTRIAN CONTROL WILL PROVIDE SAFETY FOR PEDESTRIANS WITHIN THE VILLAGE'S DOWNTOWN AREA, INCLUDING VISITORS TRAVELLING THE HEART OF OHIO TRAIL. THESE IMPROVEMENTS ARE PROPOSED IN CONJUNCTION WITH THE RECENTLY SUBMITTED TAP APPLICATION FOR DOWNTOWN IMPROVEMENTS. PAVEMENT MARKINGS, CONCRETE WALK IMPROVEMENTS, AND OTHER NON-SIGNAL WORK WAS PART OF THE TAP APPLICATION. THIS ABBREVIATED SAFETY APPLICATION IS FOR THE SIGNAL IMPROVEMENTS ONLY. FUNDING FROM BOTH THE ODOT TAP AND SAFETY PROGRAMS WOULD BE UTILIZED FOR CONSTRUCTION IN FY2026.

NOTE: PARCEL LINES AND RIGHT OF WAY SHOWN ARE APPROXIMATE AND ARE BASED ON SHAPEFILES FROM THE COUNTY AUDITOR.





Engineer's Opinion of Probable Project Costs

Main Street (US36/SR3) Signal Improvements
Village of Centerburg, Ohio
Project Number: 20235548

Date: 4/3/2023
Calculated by: HAC
Checked by: TJB

Description: Proposed improvements include signal upgrades along Main Street (US36/SR3) at the intersections with Preston Street, Hartford Avenue, and Clayton Street. New signals will include pedestrian signal heads and push buttons, video detection, and mast arm supports with backplates for the new vehicular signal heads. Signal improvements proposed to be done in conjunction with TAP downtown improvements.

Item No.	Item	Total Quantity	Units	Unit Price	Total Price
Preston Street & Main Street (US36/SR3)					
Signal					
625	conduit	200	FT	\$10.00	\$2,000.00
625	conduit, jacked or drilled	400	FT	\$35.00	\$14,000.00
625	trench	200	FT	\$12.00	\$2,400.00
625	pull box	4	each	\$900.00	\$3,600.00
625	ground rod	8	each	\$200.00	\$1,600.00
625	underground warning/marketing tape	200	FT	\$0.20	\$40.00
630	signs (allowance)	lump	sum	\$6,000.00	\$6,000.00
632	vehicular signal head, (LED), 3-section, 12" lens, 1-way, polycarbonate	8	each	\$950.00	\$7,600.00
632	pedestrian signal head, (LED), type D2, countdown	8	each	\$800.00	\$6,400.00
632	covering of vehicular signal head	8	each	\$40.00	\$320.00
632	pedestrian push button	8	each	\$500.00	\$4,000.00
632	pedestal foundation	2	each	\$500.00	\$1,000.00
632	pedestal, 8'	2	each	\$1,000.00	\$2,000.00
632	signal cables	3,300	FT	\$5.00	\$16,500.00
632	signal support foundation	2	each	\$4,000.00	\$8,000.00
632	power cables	200	FT	\$4.50	\$900.00
632	power service	1	each	\$2,000.00	\$2,000.00
632	conduit riser	1	each	\$300.00	\$300.00
632	signal support, type TC-81.21	2	each	\$13,000.00	\$26,000.00
632	signal support, misc.: foundation test hole	1	each	\$300.00	\$300.00
632	removal of traffic signal installation	1	each	\$4,000.00	\$4,000.00
633	cabinet foundation	1	each	\$2,500.00	\$2,500.00
633	communications	1	each	\$1,500.00	\$1,500.00
633	uninterruptible power supply (UPS), 1000 WATT	1	each	\$5,500.00	\$5,500.00
633	preemption equipment	1	each	\$1,650.00	\$1,650.00
633	controller unit with cabinet	1	each	\$16,500.00	\$16,500.00
642	pavement markings allowance	lump	sum	\$990.00	\$990.00
809	preempt detector cable	1,500	FT	\$2.00	\$3,000.00
816	video detection system	1	each	\$11,000.00	\$11,000.00
816	training for video detection system	lump	sum	\$300.00	\$300.00
General					
614	maintaining traffic	lump	sum	\$8,000.00	\$8,000.00
624	mobilization	lump	sum	\$4,000.00	\$4,000.00
construction subtotal					\$163,900
inflation to FY2026					\$19,300
construction total					\$183,200



Engineer's Opinion of Probable Project Costs

Main Street (US36/SR3) Signal Improvements
 Village of Centerburg, Ohio
 Project Number: 20235548

Date: 4/3/2023
 Calculated by: HAC
 Checked by: TJB

Description: Proposed improvements include signal upgrades along Main Street (US36/SR3) at the intersections with Preston Street, Hartford Avenue, and Clayton Street. New signals will include pedestrian signal heads and push buttons, video detection, and mast arm supports with backplates for the new vehicular signal heads. Signal improvements proposed to be done in conjunction with TAP downtown improvements.

Item No.	Item	Total Quantity	Units	Unit Price	Total Price
Hartford Avenue & Main Street (US36/SR3)					
Signal					
625	conduit	200	FT	\$10.00	\$2,000.00
625	conduit, jacked or drilled	400	FT	\$35.00	\$14,000.00
625	trench	200	FT	\$12.00	\$2,400.00
625	pull box	4	each	\$900.00	\$3,600.00
625	ground rod	8	each	\$200.00	\$1,600.00
625	underground warning/marketing tape	200	FT	\$0.20	\$40.00
630	signs (allowance)	lump	sum	\$6,000.00	\$6,000.00
632	vehicular signal head, (LED), 3-section, 12" lens, 1-way, polycarbonate	8	each	\$950.00	\$7,600.00
632	pedestrian signal head, (LED), type D2, countdown	8	each	\$800.00	\$6,400.00
632	covering of vehicular signal head	8	each	\$40.00	\$320.00
632	pedestrian push button	8	each	\$500.00	\$4,000.00
632	pedestal foundation	2	each	\$500.00	\$1,000.00
632	pedestal, 8'	2	each	\$1,000.00	\$2,000.00
632	signal cables	3,300	FT	\$5.00	\$16,500.00
632	signal support foundation	2	each	\$4,000.00	\$8,000.00
632	power cables	200	FT	\$4.50	\$900.00
632	power service	1	each	\$2,000.00	\$2,000.00
632	conduit riser	1	each	\$300.00	\$300.00
632	signal support, type TC-81.21	2	each	\$13,000.00	\$26,000.00
632	signal support, misc.: foundation test hole	1	each	\$300.00	\$300.00
632	removal of traffic signal installation	1	each	\$4,000.00	\$4,000.00
633	cabinet foundation	1	each	\$2,500.00	\$2,500.00
633	communications	1	each	\$1,500.00	\$1,500.00
633	uninterruptible power supply (UPS), 1000 WATT	1	each	\$5,500.00	\$5,500.00
633	preemption equipment	1	each	\$1,650.00	\$1,650.00
633	controller unit with cabinet	1	each	\$16,500.00	\$16,500.00
642	pavement markings allowance	lump	sum	\$990.00	\$990.00
809	preempt detector cable	1,500	FT	\$2.00	\$3,000.00
816	video detection system	1	each	\$11,000.00	\$11,000.00
816	training for video detection system	lump	sum	\$300.00	\$300.00
General					
614	maintaining traffic	lump	sum	\$10,000.00	\$10,000.00
624	mobilization	lump	sum	\$5,000.00	\$5,000.00
construction subtotal					\$166,900
inflation to FY2026					\$19,700
construction total					\$186,600



Engineer's Opinion of Probable Project Costs

Main Street (US36/SR3) Signal Improvements
 Village of Centerburg, Ohio
 Project Number: 20235548

Date: 4/3/2023
 Calculated by: HAC
 Checked by: TJB

Description: Proposed improvements include signal upgrades along Main Street (US36/SR3) at the intersections with Preston Street, Hartford Avenue, and Clayton Street. New signals will include pedestrian signal heads and push buttons, video detection, and mast arm supports with backplates for the new vehicular signal heads. Signal improvements proposed to be done in conjunction with TAP downtown improvements.

Item No.	Item	Total Quantity	Units	Unit Price	Total Price
Clayton Street & Main Street (US36/SR3)					
Signal					
625	conduit	200	FT	\$10.00	\$2,000.00
625	conduit, jacked or drilled	400	FT	\$35.00	\$14,000.00
625	trench	200	FT	\$12.00	\$2,400.00
625	pull box	4	each	\$900.00	\$3,600.00
625	ground rod	8	each	\$200.00	\$1,600.00
625	underground warning/marketing tape	200	FT	\$0.20	\$40.00
630	signs (allowance)	lump	sum	\$6,000.00	\$6,000.00
632	vehicular signal head, (LED), 3-section, 12" lens, 1-way, polycarbonate	8	each	\$950.00	\$7,600.00
632	pedestrian signal head, (LED), type D2, countdown	8	each	\$800.00	\$6,400.00
632	covering of vehicular signal head	8	each	\$40.00	\$320.00
632	pedestrian push button	8	each	\$500.00	\$4,000.00
632	pedestal foundation	2	each	\$500.00	\$1,000.00
632	pedestal, 8'	2	each	\$1,000.00	\$2,000.00
632	signal cables	3,200	FT	\$5.00	\$16,000.00
632	signal support foundation	2	each	\$4,000.00	\$8,000.00
632	power cables	200	FT	\$4.50	\$900.00
632	power service	1	each	\$2,000.00	\$2,000.00
632	conduit riser	1	each	\$300.00	\$300.00
632	signal support, type TC-81.21	2	each	\$13,000.00	\$26,000.00
632	signal support, misc.: foundation test hole	1	each	\$300.00	\$300.00
632	removal of traffic signal installation	1	each	\$4,000.00	\$4,000.00
633	cabinet foundation	1	each	\$2,500.00	\$2,500.00
633	communications	1	each	\$1,500.00	\$1,500.00
633	uninterruptible power supply (UPS), 1000 WATT	1	each	\$5,500.00	\$5,500.00
633	preemption equipment	1	each	\$1,650.00	\$1,650.00
633	controller unit with cabinet	1	each	\$16,500.00	\$16,500.00
642	pavement markings allowance	lump	sum	\$790.00	\$790.00
809	preempt detector cable	1,500	FT	\$2.00	\$3,000.00
816	video detection system	1	each	\$11,000.00	\$11,000.00
816	training for video detection system	lump	sum	\$300.00	\$300.00
General					
614	maintaining traffic	lump	sum	\$10,000.00	\$10,000.00
624	mobilization	lump	sum	\$5,000.00	\$5,000.00
construction subtotal					\$166,200
inflation to FY2026					\$19,600
construction total					\$185,800

	Construction Total	Local	Safety
Preston Street & Main Street (US36/SR3)	\$183,200	\$18,300	\$164,900
Hartford Avenue & Main Street (US36/SR3)	\$186,600	\$18,700	\$167,900
Clayton Street & Main Street (US36/SR3)	\$185,800	\$18,600	\$167,200
	\$555,600	\$55,600	\$500,000

CRASH DIAGRAM

Preston Street &
Main Street (US36/SR3)
2020-2022



Main St

Preston St



2



CRASH DIAGRAM

Hartford Avenue &
Main Street (US36/SR3)
2020-2022



Hartford Ave

Main St



CRASH DIAGRAM

Clayton Street &
Main Street (US36/SR3)
2020-2022



Main St

Clayton St