

PUB WKS

10/08/13

OFFICIAL NOTICE OF MEETING
PUBLIC WORKS COMMITTEE OF THE MAUSTON COMMON COUNCIL
6:00PM
TUESDAY, OCTOBER 8, 2013
MAUSTON CITY HALL COUNCIL CHAMBERS
303 MANSION STREET

1. Call to Order/Roll Call
2. Discussion and Action Regarding Minutes of September 24, 2013, Meeting
3. Discussion and Recommendation Regarding Alliant Energy Request for Easement
4. Discussion and Recommendation Regarding CP Rail Crossing Closure Request
5. Discussion and Recommendation Regarding Riverside-Mansion Street Project A Pay Request #4
6. Water and Sewer Income Statements Review
7. Director of Public Works Report
8. Adjourn

**OFFICIAL NOTICE OF MEETING
PUBLIC WORKS COMMITTEE OF THE MAUSTON COMMON COUNCIL
6:00PM
TUESDAY, SEPTEMBER 24, 2013
MAUSTON CITY HALL COUNCIL CHAMBERS
303 MANSION STREET**

Call to Order/Roll Call The Public Works Committee of the Mauston Common Council met on Tuesday, September 24, 2013, in the Council Chambers of Mauston City Hall. Chair Rick Noe called the meeting to order at 6:00pm. Members present were Floyd Babcock, Francis McCoy, and Noe. Also present were Director of Public Works Rob Nelson; Alderperson Steve Leavitt; and Alliant Energy Representatives Steve Beltz and Bill Bastian.

Minutes McCoy/Babcock to approve the minutes of the September 10, 2013, meeting. Motion carried by voice vote.

Alliant Energy Request for Easement Beltz and Bastian explained the proposed project to bore a gas main under the Lemonweir River. To accomplish that they need easements from the City on both the south and north sides of the river. The drawings presented show the easement going through the newly renovated and landscaped portions of Riverside Park. Committee questioned why Alliant's work was not coordinated at the same time that Riverside Park construction was underway. Bastian explained that he was not part of the project until late July. Beltz stated projects are generally left at the discretion of the local project manager; but two explanations may have been the safety concern of too many contractors on the same site at the same time, or weather concerns.

Noe asked if the proposed reimbursement rate of 10% for the right to the easement was standard for Alliant, and requested information other municipalities that have the same agreement.

Committee asked if Alliant had considered any other locations for the crossing. After discussion Beltz and Bastian agreed to move the location of the proposed easement on the south side of the river to the west within the right-of-way of Beach Street. Committee consensus; that option is favorable.

The item will be placed on the next Public Works Agenda.

Lift Station #7 Engineering Estimates McCoy/Babcock to recommend to the Council to proceed with engineering design for Lift Station #7 at a cost not to exceed \$20,000. Motion carried by voice vote.

CP Rail Request to Close Crossing on Hanover Street Committee consensus to negotiate with CP Rail toward an agreement authorizing the closing of the Hanover Street crossing in exchange for a commitment from CP Rail to provide regular, acceptable maintenance on the other crossings located within the City.

Director of Public Works Report Nelson reported that residential Fall Clean-up is scheduled for October 7, 8 and 9, on regular garbage pickup days.

Adjourn Leavitt/Babcock to adjourn. Motion carried by voice vote. Meeting adjourned at 6:35pm.

Rick Noe, Chair

Date



Dan Sabatka
Canadian Pacific
11306 Franklin Avenue
Franklin Park, IL 60131

Ryan Raske
AECOM
800 Lasalle Ave
Minneapolis, MN 55402

Hanover Street Closure Study

U.S. DOT-AAR Crossing #390813L

Prepared for: Canadian Pacific



Grade Crossing Closure Study
Mauston, WI
MP 214.56 Tomah Subdivision
July 2013
July 2013

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1 Introduction

In the month of July 2013, AECOM reviewed the Hanover Street crossing over the Canadian Pacific Railway (CPR) mainline in Mauston, Wisconsin. The study was performed to evaluate general grade crossing safety and level of usage at the crossing. This report includes findings from field inspections, site survey data, site photos, traffic counter data, research and phone conversations with local officials and public safety departments. The report summarizes AECOM's findings with a conclusion and recommendation based upon the findings.

2 General Findings

The Hanover Street grade crossing is located within the Town of Mauston in Juneau County, Wisconsin. The following are main roadways in Juneau County that serve the study area.

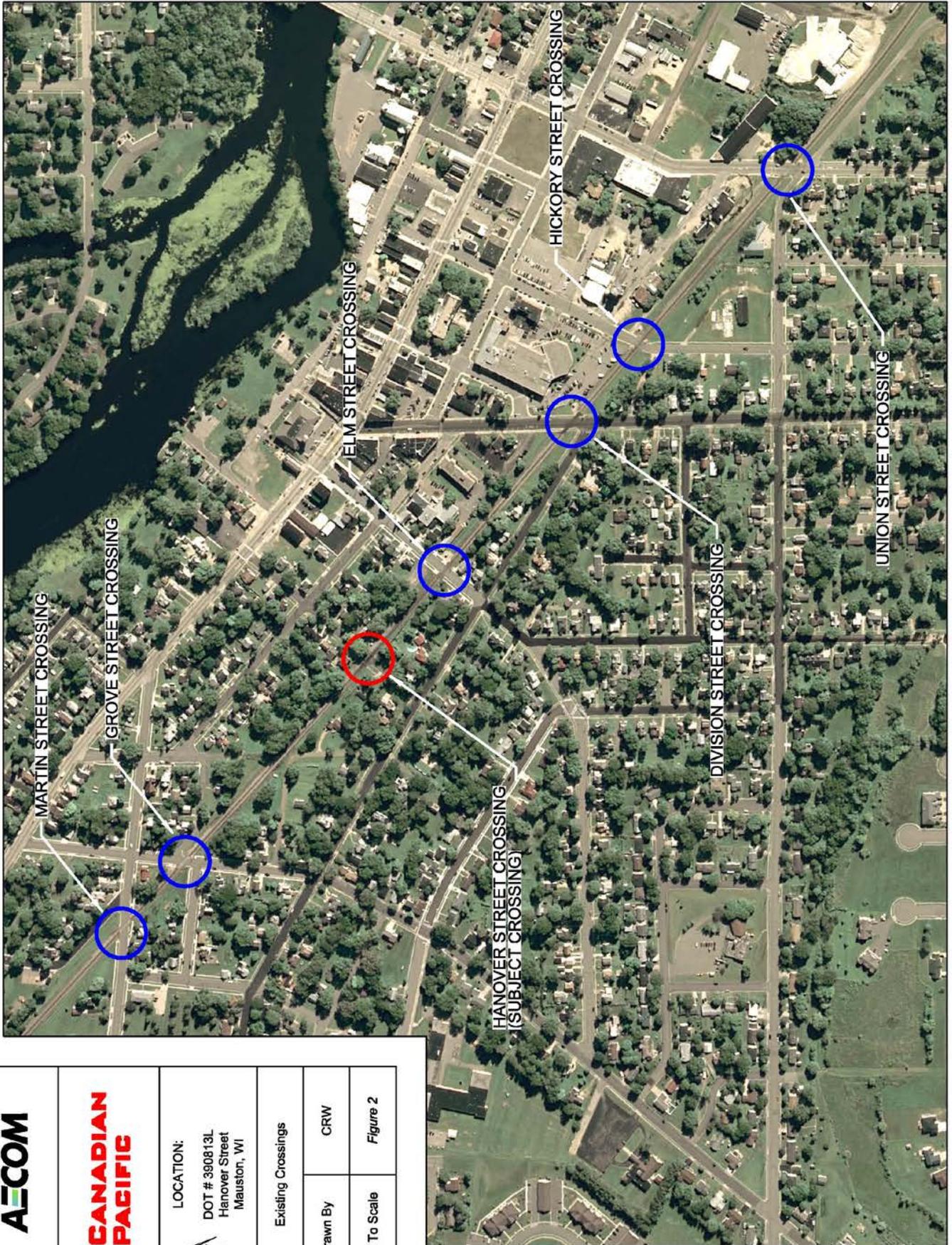
- I-90/I-94 is a 4 lane Interstate Highway
- U.S. 12 (Wisconsin 16) is a northwest-southwest route that connects the Mauston area to Western and Southern Wisconsin.
- Wisconsin 58 is a north-south route that connects the Mauston area to Northern and Southern Wisconsin.
- Wisconsin 82 is an east-west route that connects the Mauston area to I-39 to the east and to Western Wisconsin.

Hanover Street is a local residential road that connects Tremont Street to State Street. *Figure 1* shows Hanover Street crossing the CPR mainline to the southwest of the Maine Street/Hanover Street intersection. The area around the crossing is lightly wooded with some residential housing in all directions. As seen in *Figure 2*, it was also observed that several other crossings exist in the area surrounding Hanover Street that could serve as alternative routes in the event of a closing. Through site observations it was determined that all existing crossings featured in *Figure 2* are equipped with active warning systems including gates and flashers with motion sensor circuitry and crossbucks.

The CPR tracks consist of a single mainline track that is part of the Tomah Subdivision at mile post 214.56. This is a key rail corridor for CPR and Amtrak in the State of Wisconsin. The line provides a link between Chicago and destinations to the east, and St. Paul and destinations to the west. Railroad operations through the crossing consist of approximately 2 passenger trains and 20 freight trains per day traveling at a maximum timetable speed of 79 miles per hour.



		<p>LOCATION: DOT # 390813L Hanover Street Mauston, WI</p>	Crossing Location	
			Drawn By	CRW
Not To Scale		Figure 1		



LOCATION: DOT # 390813L Hanover Street Mauston, WI	
Existing Crossings	
Drawn By	CRW
Not To Scale	Figure 2

3 Hanover Street Crossing

Through field observations and Federal Railroad Administration (FRA) sources outlined in Appendix A, specific characteristics of the Hanover Street Crossing were identified to evaluate the overall condition and safety of the roadway leading up to the tracks. It was observed through online mapping software that the typical roadway cross section consists of 22 feet of asphalt pavement with little to no shoulder. Hanover Street has no visible striping and no posted speed limit on the roadway; however, cross reference with FRA sources revealed a speed limit of 25 miles per hour along Hanover. The road also showed evident signs of wear and cracking as seen in *Figure 2*. The crossing warning system at Hanover Street includes crossbucks and flashers and gates with motion sensor circuitry which were installed in 1991. The crossing surface is a 36 foot wide rubber paneled crossing and includes a sidewalk on the west side of the street.



Figure 3 – Road Characteristics

Other important aspects involved in determining the safety of the crossing included the railroad approach grade and intersection angle of the roadway to the rail. Through the FRA Crossing Inventory Information sheet found in Appendix A and track charts provided by CP, it was determined that the grade of the track is approximately 0.14% in the area, and that the crossing angle is approximately 80 degrees. A detailed plan view of the crossing can be seen in *Figure 4*.

Approaching Sight Distance

Approaching sight distance (ASD) is the distance required for a traveling vehicle to see an approaching train in sufficient time to stop safely 15' before the nearest rail. To meet ASD requirements, a driver needs an unobstructed field of vision along the approach in either direction. Per the AASHTO standards in Appendix E, the ASD for the crossing was measured at a point 187' along Hanover Street from the nearest rail. Online mapping software was used to calculate the following approaching sight distances for the Hanover Street crossing:

- For Hanover Street traffic headed southbound looking west, the ASD is approximately 75' due to vegetation lining a house located to the northwest of the crossing.
- For Hanover Street traffic headed southbound looking east, the ASD is approximately 75' due to a house located to the northeast of the crossing.
- For Hanover Street traffic headed northbound looking east, the ASD is approximately 45' due to a house located to the southeast of the crossing.
- For Hanover Street northbound traffic looking west, the ASD is approximately 100' due to vegetation lining the sidewalk between two properties located to the southwest of the crossing.

Based upon the speed of trains traveling through the crossing and the assumed speed of the roadway, AASHTO requires drivers to be able to see approximately 830' down the track in either direction. Under these requirements, in the event of a gate failure the ASD at all approaches does not meet AASHTO guidelines.

Clearing Sight Distance

Clearing sight distance (CSD) is a safety measure used to evaluate whether or not a driver stopped 15' from the nearest rail has the line of sight along the rail necessary to safely judge whether or not the tracks can be crossed before the arrival of a train. Based on the FRA's "Guidance on Traffic Control Devices at Highway-Rail Grade Crossings" publication, the following are minimum clearing sight distances, given in units of feet that should be provided for specific train speeds.

Table 1

Train speed	Car	Single-unit truck	Bus	WB-50 semitruck	65-foot double truck	Pedestrian**
10	105	185	200	225	240	180
20	205	365	400	450	485	355
25	255	455	500	560	605	440
30	310	550	600	675	725	530
40	410	730	795	895	965	705
50	515	910	995	1,120	1,205	880
60	615	1,095	1,195	1,345	1,445	1,060
70	715	1,275	1,395	1,570	1,680	1,235
80	820	1,460	1,590	1,790	1,925	1,410
90	920	1,640	1,790	2,015	2,165	1,585

Based upon the data in *Table 1*, and the known maximum train speed of 79 MPH, the minimum required clearing sight distance for a driver using the Hanover Street crossing is 820'. With the aid of online mapping software and site photos, clearing sight distances were estimated for all approaches. The observations can be seen in the following:

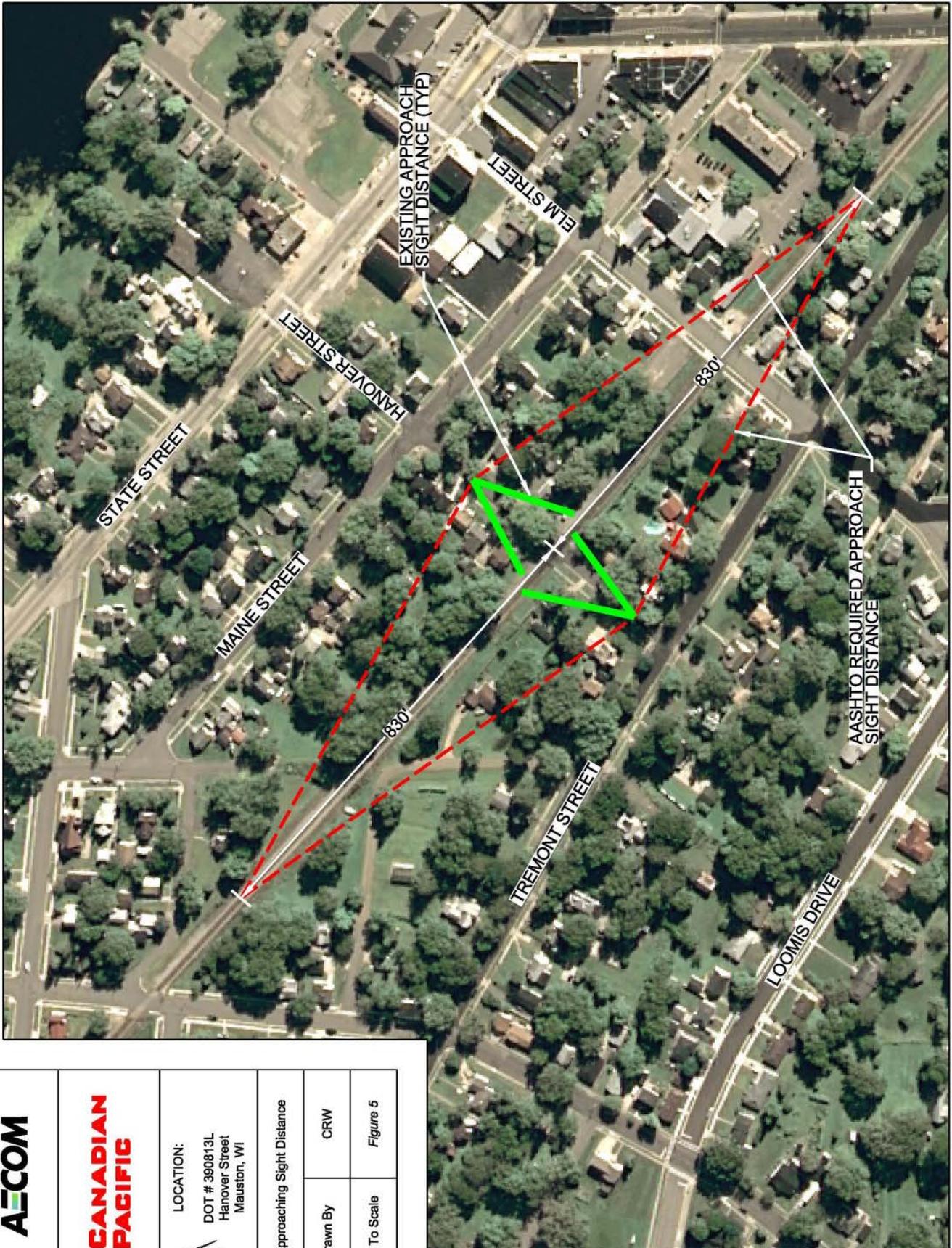
- For Hanover Street northbound traffic looking east the CSD is approximately 450'
- For Hanover Street northbound traffic looking west the CSD is greater than 1000'
- For Hanover Street southbound traffic looking west the CSD is greater than 1000'
- For Hanover Street southbound traffic looking east the CSD is greater than 1000'

Traffic and Crash Data

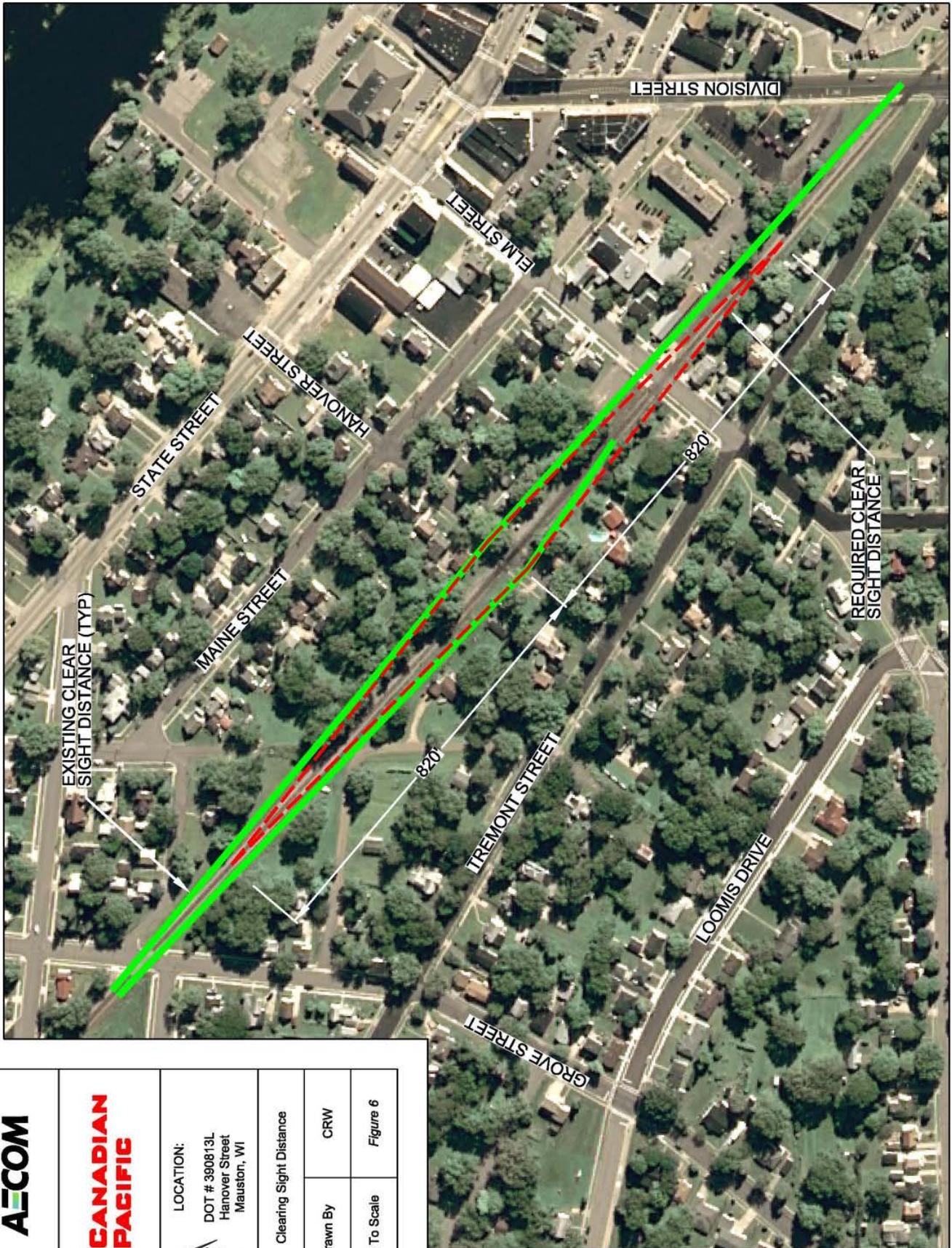
AECOM collected traffic data using a tube counter located 20 feet south of the Hanover Road crossing. Data was collected for 48-hours from 1:00 PM on Wednesday, July 10th to 1:00 PM on Friday, July 12th. The traffic count for Hanover Avenue resulted in an ADT of 128 vehicles. The data also revealed that peak volumes generally occurred in the early afternoon and evening hours between 12:00 PM and 6:00PM. Further detailed data regarding the traffic counts can be found in Appendix B. From these results and railroad operations information, it was determined that the exposure factor (the product of AADT at the crossing and number of train movements per day) at the crossing was 2816. No accident reports were available through FRA records.



		LOCATION: DOT # 390813L Hanover Street Mauston, WI		Detailed Approach	
				Drawn By CRW	Figure 4
			Not To Scale		



		LOCATION: DOT # 390813L Hanover Street Mauston, WI	Approaching Sight Distance	
			Drawn By	CRW
Not To Scale		Figure 5		



AECOM	CANADIAN PACIFIC	LOCATION: DOT # 390813L Hanover Street Mauston, WI		Clearing Sight Distance	
				Drawn By	CRW
			Not To Scale	Figure 6	

4 Area Characteristics

AECOM contacted local planning and public service agencies in order to collect data regarding the impact of closing the Hanover Street crossing. The following sections summarize the prevailing views and comments of local officials collected during conversations conducted to obtain additional details about the crossing. The notes from each official can be found in Appendix D.

Area Growth and Future Projects

In order to determine the extent of future plans to grow the City of Mauston, Public Works Director Rob Nelson was contacted. In a conversation with Mr. Nelson, no concerns were raised over the potential closure in regard to city growth. Mr. Nelson also stated that Hanover Street does not serve as a major access point for local traffic crossing the railway.

Emergency Services

In order to determine the effect of the Hanover Street crossing closure on emergency services in the area, the proper city police and fire departments were contacted. During a conversation with a police officer in charge at the Mauston Police Department, the officer expressed that Grove Street serves as the major north-south thoroughfare for Mauston residents and police; whereas Hanover is less prominently used.

In another conversation with the Sparta Fire Department, Fire Chief Kim Hale did not express any conflict with the potential closing and went on to say that it would create no major inconveniences for the Fire Department.

Environmental

After completing a preliminary scan of the area, it was determined that Decorah Lake the closest body of water to the roadway. After reviewing a FEMA Insurance Flood Rate map of the area, it was determined that the Decorah Lake floodplain did not intersect with any portion of Hanover Street. The full detailed map containing the floodplain information can be found in Appendix C.

School Bus Service

Through conversation with the Office Manager of Jevco Transit Lisa Bauer, it was determined that the closing of the Hanover Street crossing would not pose a problem from the standpoint of district transportation to local area schools.

Transit Service

A message left at Jevco Transit for Lisa Bauer regarding her knowledge of any public transit services in Masuton made on 7/19/13 went unreturned.

Existing Utilities

Per conversation with Public Works Foreman, Chad Peterson, several utilities exist in the vicinity of the Hanover Street Crossing, including:

- A 6 inch water main north of the tracks along Hanover Street, terminating at an existing fire hydrant north of the tracks. This water main does not cross under the tracks.
- A 2 inch copper water line south of tracks along Hanover Street, terminating with a stub end south of the tracks. This water line does not cross under the tracks.
- A 48 inch storm sewer along the west side of Hanover Street that crosses under the tracks.

5 Travel Time Analysis

In order to determine the impact of closing the Hanover Crossing as it pertains to travel time, existing and alternative routes were analyzed and compared. In this analysis travel time and distance associated with an existing route were compared with the two alternative routes. Through conversations with local officials and a preliminary analysis, it was determined that emergency response involving fire, police and hospitals would not be affected by the crossing closure. A route was considered which would involve a driver utilizing Hanover Street in order to reach State Street. Descriptions of the routes and a table summarizing the analysis can be found in the following sections along with *Figure 7* which shows all of the considered routes.

Existing Route

This route considers a vehicle traveling from the intersection of Hanover Street and Tremont Street to the intersection of Hanover Street and State Street while utilizing Hanover Street.

Alternative Route 1

This route considers a driver utilizing Tremont Street, Elm Street, Maine Street and Hanover Street in order to reach the Hanover Street and State Street intersection.

Alternative Route 2

This route considers a driver using Tremont Street, Grove Street, Martin Street and State Street in order to reach the Hanover Street and State Street intersection.

Table 1

Route	Distance (Miles)	Travel Time (Minutes)
Existing	0.2	0.6
Alternative 1	0.3	1
Alternative 2	0.6	2



		<p>LOCATION: DOT # 390813L Hanover Street Mauston, WI</p>	Alternate Routes	
			Drawn By	CRW
Not To Scale		Figure 7		

6 Conclusion and Recommendation

The Hanover Street crossing was evaluated based on data collected and analyzed to determine the safety and operational impacts of the crossing closure. After completing the evaluation, the Hanover Street crossing is recommended for closure based on the following:

- Hanover Street supports low traffic volumes consisting of an estimated AADT of 128 vehicles.
- There are a multitude of alternative crossings, all equipped with advanced warning systems and gates, located within a 0.5 mile radius of Hanover Street to the east and west.
- The alternative route analysis revealed that multiple feasible alternate routes could be utilized in the event of a closing without drastically affecting travel time or distance.
- Major officials contacted throughout the review process including Public Works Director Rob Nelson, The Mauston Police Department, Fire Chief Kim Hale and Office Manager of Jevco Transit Lisa Bauer, expressed little concern regarding the possibility of the Hanover Street Crossing Closure. The above officials further stated that alternate routes exist which should accommodate their needs.
- Several obstructions lining the roadway limit the approaching sight distance to a maximum of 100', which does not satisfy the minimum criteria in the event of a gate failure.
- Obstructions lining the right-of-way limit the clearing sight distance for northbound traffic looking east to 450', which does not satisfy the minimum criteria.

Appendix A. Federal Railroad Administration Data



**FEDERAL RAILROAD ADMINISTRATION
GRADE CROSSING CONTACT LIST**

FRA HEADQUARTERS

FEDERAL RAILROAD ADMINISTRATION
OFFICE OF PUBLIC AFFAIRS, ROA-30
1200 NEW JERSEY AVENUE, S.E.
THIRD FLOOR WEST
WASHINGTON DC 20590
(202) 493-6024

FRA REGIONAL ADMINISTRATOR

LAURENCE HASVOLD
REGIONAL ADMINISTRATOR - IV
FEDERAL RAILROAD ADMINISTRATION
200 WEST ADAMS STREET
CHICAGO IL 60606
(312) 353-6203

STATE INVENTORY CONTACT

DAVID FRIEDRICHS
BUREAU OF STATE HIGHWAY
PROGRAMS
WISCONSIN DEPT. OF
TRANSPORTATION
4802 SHEBOYGAN AVE., ROOM 901
MADISON WI 53707-7913
(608) 266-1168

STATE HIGHWAY CONTACT

RON ADAMS
RAILS AND HARBORS SECTION
WI DEPT. OF TRANSPORTATION
4802 SHEYBOYGAN AVE. P. O. BOX
7965
MADISON WI 53707-7965
(608) 267-9264

FRA HEADQUARTERS

FEDERAL RAILROAD ADMINISTRATION
OFFICE OF SAFETY, RRS-23
1200 NEW JERSEY AVENUE, S.E.
THIRD FLOOR WEST
WASHINGTON DC 20590
(202) 493-6299

FRA REGIONAL CROSSING MANAGER

TAMMY WAGNER
REGIONAL CROSSING MANAGER
FEDERAL RAILROAD ADMINISTRATION
200 WEST ADAMS, SUITE 310
CHICAGO IL 60606
(312) 353-6203
(800) 724-5040

OPERATION LIFESAVER CONTACT

JIM TRACEY
STATE COORDINATOR
WISCONSIN OPERATION LIFESAVER
4802 SHEBOYGAN AVE. ROOM 701 P.O.
BOX 7914
MADISON WI 53709
(608) 267-7946

RAILROAD CONTACT

JIM KRIEGER
MANAGER PUBLIC WORKS
CANADIAN PACIFIC RAILWAY
501 MARQUETTE AVE
MINNEAPOLIS MN 55402
(612) 904-5994

U.S. DOT - CROSSING INVENTORY INFORMATION AS OF 6/27/2013

Crossing No.: **390813L** Update Reason: **Changed Crossing** Effective Begin-Date of Record: **03/21/07**
 Railroad: **SOO SOO Line RR Co. [SOO]** End-Date of Record:
 Initiating Agency **State** Type and Position: **Public At Grade**

Part I Location and Classification of Crossing

Division: SOO LINE	State: WI
Subdivision: TOMAH	County: JUNEAU
Branch or Line Name: CHICAGO-ST PAUL	City: In MAUSTON
Railroad Milepost: 0214.56	Street or Road Name: HANOVER ST
RailRoad I.D. No.: M214.56C	Highway Type & No.:
Nearest RR Timetable Stn: MAUSTON	HSR Corridor ID:
Parent Railroad: Canadian Pacific Rwy Co. [CP]	County Map Ref. No.: PRL
Crossing Owner: Canadian Pacific Rwy Co. [CP]	Latitude: 43.7980960
ENS Sign Installed:	Longitude: -90.0817500
Passenger Service: AMTRAK	Lat/Long Source: Estimate
Avg Passenger Train Count: 2	Quiet Zone: No
Adjacent Crossing with Separate Number: No	

Private Crossing Information:

Category:	Public Access:
Specify Signs:	Specify Signals:
ST/RR A ST/RR B ST/RR C ST/RR D	
Railroad Use:	
State Use:	
Narrative:	

Emergency Contact: **(800)716-9132** Railroad Contact: State Contact: **(608)266-1168**

Part II Railroad Information

Number of Daily Train Movements:		Less Than One Movement Per Day: No
Total Trains: 29	Total Switching: 4	Day Thru: 15
Typical Speed Range Over Crossing: From 10 to 70 mph		Maximum Time Table Speed: 70
Type and Number of Tracks: Main: 1 Other 0	Specify:	
Does Another RR Operate a Separate Track at Crossing?	No	
Does Another RR Operate Over Your Track at Crossing?	Yes: ATK	

U.S. DOT - CROSSING INVENTORY INFORMATION
Continued

Crossing **390813L**

Effective Begin-Date of Record: **03/21/07**

End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks:	0	Highway Stop Signs:	0
Advanced Warning:	No	Hump Crossing Sign:	No
Pavement Markings:	No Markings	Other Signs:	0 Specify:
			0

Train Activated Devices:

Gates:	2	4 Quad or Full Barrier:	No
Mast Mounted FL:	2	Total Number FL Pairs:	1
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	0	Specify Other Flashing Lights:	
Highway Traffic Signals:	0	Wigwags:	0 Bells: 1
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:	None	Type of Train Detection:	DC/AFO
Track Equipped with Train Signals?	Yes	Traffic Light Interconnection/Preemption:	Not Interconnected

Part IV: Physical Characteristics

Type of Development:	Residential	Smallest Crossing Angle:	60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad:	2	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes	If Other:	
Crossing Surface:	Asphalt	Is it Signalized?	No
Nearby Intersecting Highway?	76 to 200 feet	Is Crossing Illuminated?	Yes
Does Track Run Down a Street?	No		
Is Commercial Power Available?	Yes		

Part V: Highway Information

Highway System:	Non-Federal-aid	Functional Classification of Road at Crossing:	Rural Local
Is Crossing on State Highway System:	No	AADT Year:	1991
Annual Average Daily Traffic (AADT):	000250	Avg. No of School Buses per Day:	0
Estimated Percent Trucks:	04		
Posted Highway Speed:	25		

Appendix B. Traffic Counter Data



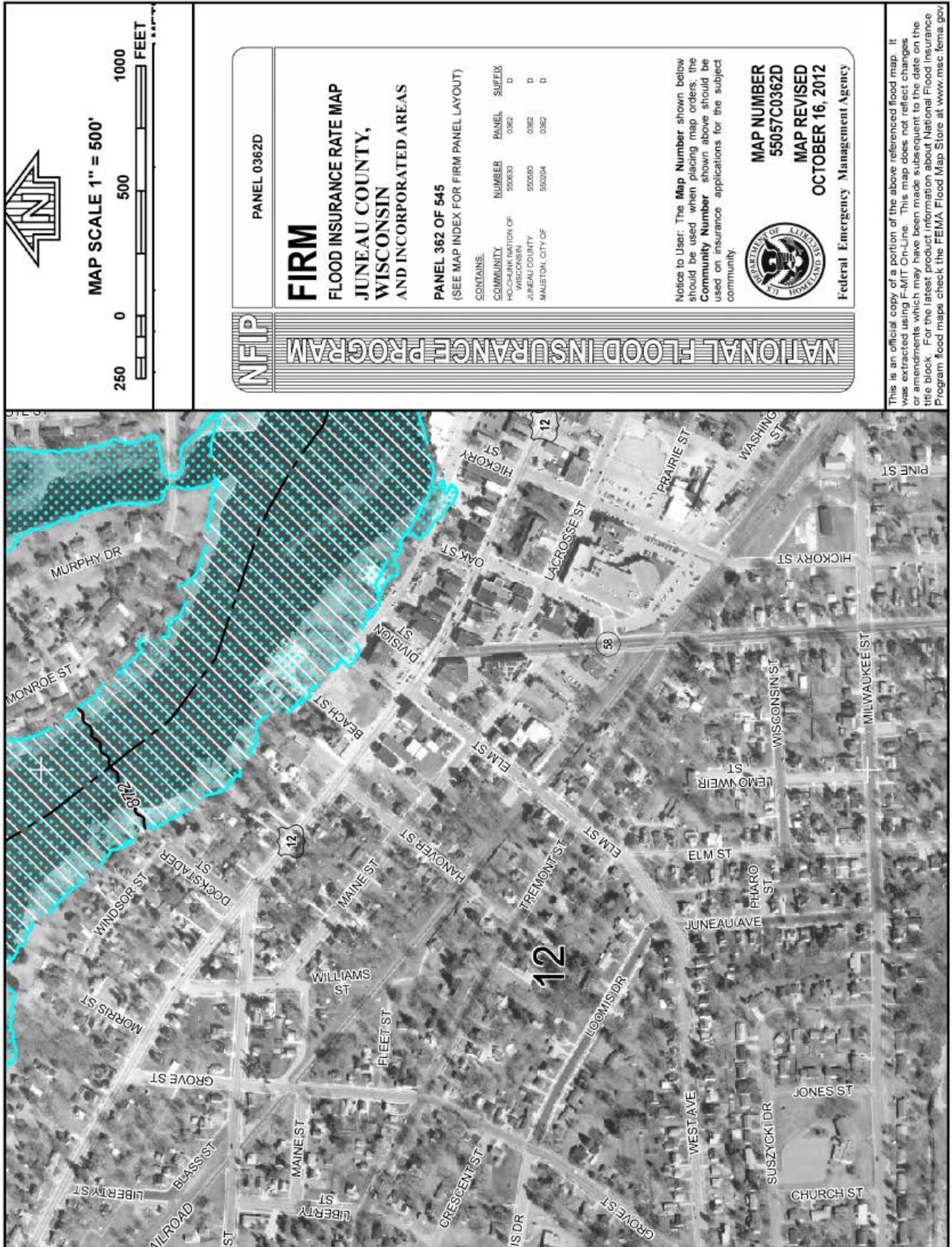
800 LaSalle Avenue, Suite 110
 Minneapolis, MN 55402

Hanover Street

Date Start: 10-Jul-13
 Date End: 12-Jul-13
 Date Printed: 16-Jul-13

Start Time	08-Jul-13		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo	Northbou	Southbo
12:00 AM	*	*	*	*	*	*	1	0	0	2	*	*	*	*	0	1
01:00	*	*	*	*	*	*	0	1	0	0	*	*	*	*	0	0
02:00	*	*	*	*	*	*	1	0	0	1	*	*	*	*	0	0
03:00	*	*	*	*	*	*	0	0	0	0	*	*	*	*	0	0
04:00	*	*	*	*	*	*	0	1	0	1	*	*	*	*	0	1
05:00	*	*	*	*	*	*	0	0	0	0	*	*	*	*	0	0
06:00	*	*	*	*	*	*	1	0	0	0	*	*	*	*	0	0
07:00	*	*	*	*	*	*	2	0	2	0	*	*	*	*	2	0
08:00	*	*	*	*	*	*	2	4	2	7	*	*	*	*	2	6
09:00	*	*	*	*	*	*	4	3	2	1	*	*	*	*	3	2
10:00	*	*	*	*	*	*	4	0	2	4	*	*	*	*	3	2
11:00	*	*	*	*	*	*	4	4	2	2	*	*	*	*	3	3
12:00 PM	*	*	*	*	*	*	10	4	4	2	*	*	*	*	7	3
01:00	*	*	*	*	*	*	4	6	*	*	*	*	*	*	5	6
02:00	*	*	*	*	*	*	0	4	*	*	*	*	*	*	0	3
03:00	*	*	*	*	*	*	8	7	*	*	*	*	*	*	6	6
04:00	*	*	*	*	*	*	7	3	*	*	*	*	*	*	8	2
05:00	*	*	*	*	*	*	4	6	*	*	*	*	*	*	4	4
06:00	*	*	*	*	*	*	4	2	*	*	*	*	*	*	8	3
07:00	*	*	*	*	*	*	8	2	*	*	*	*	*	*	4	2
08:00	*	*	*	*	*	*	6	2	*	*	*	*	*	*	6	3
09:00	*	*	*	*	*	*	4	4	*	*	*	*	*	*	4	3
10:00	*	*	*	*	*	*	6	1	*	*	*	*	*	*	4	1
11:00	*	*	*	*	*	*	2	0	*	*	*	*	*	*	2	0
Lane	0	0	0	0	59	29	79	54	14	20	0	0	0	0	71	51
Day	0	0	0	0	88	29	133	88	34	0	0	0	0	0	122	122
AM Peak Vol.	-	-	-	-	-	-	09:00	08:00	07:00	08:00	-	-	-	-	09:00	08:00
PM Peak Vol.	-	-	-	-	18:00	13:00	12:00	15:00	12:00	12:00	-	-	-	-	16:00	13:00
Comb. Total	0	0	0	0	88	88	133	88	34	0	0	0	0	122	122	
ADT	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128	ADT 128

Appendix C. Flood Maps



Appendix D. Record of Conversations

RECORD OF TELEPHONE CONVERSATION

Project: Hanover Street Crossing Closure
Made By: Ryan Raske
Contact: Kim Hale
Title: Fire Chief – Town of Mauston
Phone: 608-847-5475

SUMMARY OF CONVERSATION

7/8/2013: Left a message explaining our business, and requested Mr. Hale to call back

7/8/2013: Mr. Hale did not express any conflict with closing the Hanover Street Crossing and mentioned that the potential closing would not create a major inconvenience for the Fire Department.

RECORD OF TELEPHONE CONVERSATION

Project: Hanover Street Crossing Closure
Made By: Ryan Raske
Contact: Rob Nelson
Title: Director of Public Works – City of Mauston
Phone: 608-847-4070

SUMMARY OF CONVERSATION

7/8/2013: Mr. Nelson mentioned that Hanover Street does not serve as a major access point for local traffic crossing the railway and didn't express any conflicts regarding the crossing closure.

RECORD OF TELEPHONE CONVERSATION

Project: Hanover Street Crossing Closure
Made By: Ryan Raske
Contact: Officer in Charge
Title: Police Officer
Phone: 608-847-4989

SUMMARY OF CONVERSATION

7/10/2013: Expressed that Grove served as the major thoroughfare for Mauston residents and police, whereas Hanover is less prominently utilized.

RECORD OF E-MAIL CONVERSATION

Project: Hanover Street Crossing Closure
Made By: Ryan Raske
Contact: Lisa Bauer
Title: Office Manager – Jevco Transit
Phone: 608-847-7493

SUMMARY OF CONVERSATION

7/17/2013: Ms. Bauer mentioned that closing Hanover Street would not pose a problem from the standpoint of district transportation. She also stated that Hanover Street is not a heavily used crossing for school bus transit.

7/19/2013: A phone call regarding public transit in the area made to Jevco Transit went unreturned.

RECORD OF TELEPHONE CONVERSATION

Project: Hanover Street Crossing Closure
Made By: Ryan Raske
Contact: Chad Peterson
Title: Public Works Foreman
Phone: 608-847-4070

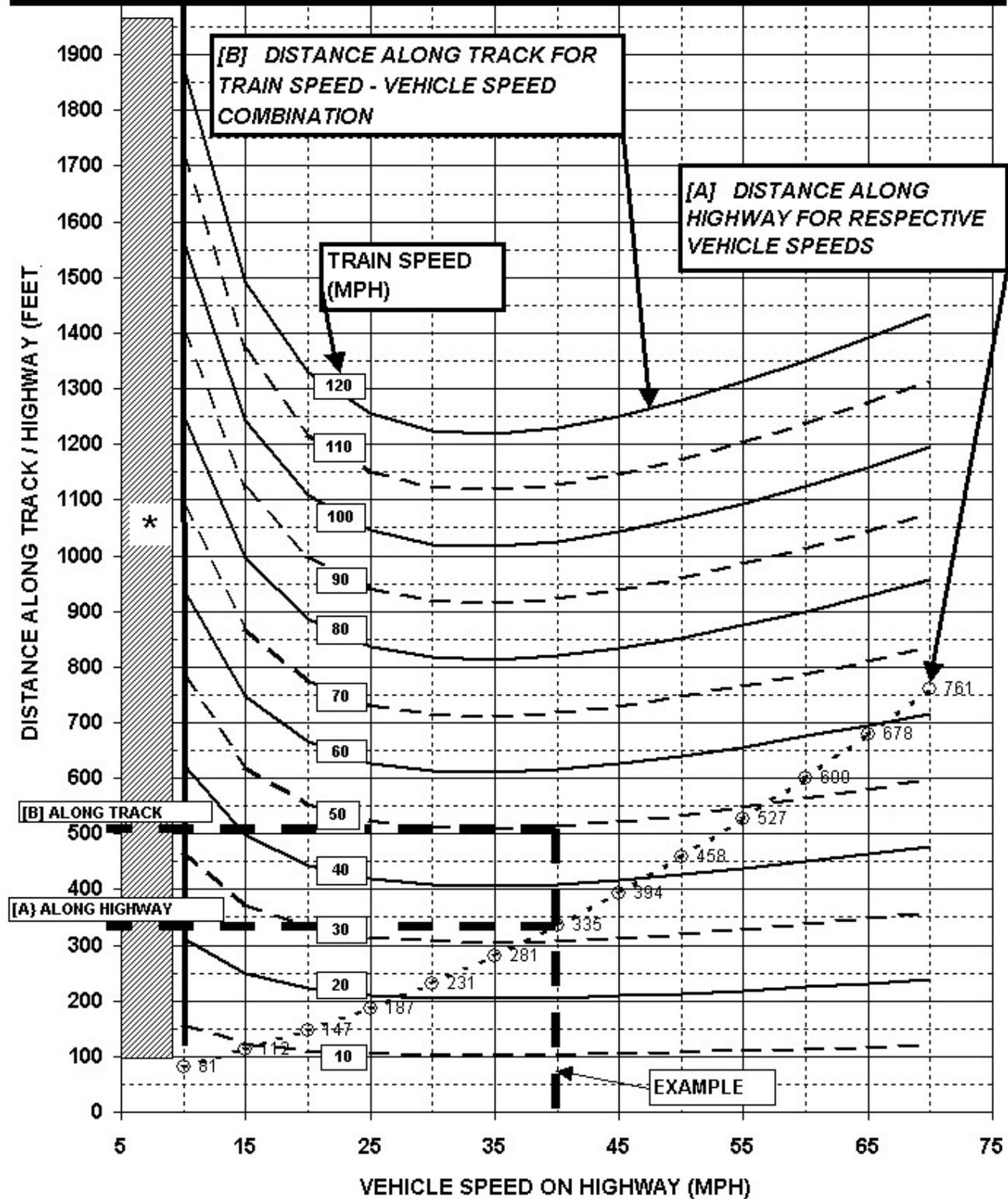
SUMMARY OF CONVERSATION

8/8/2013: An inquiry was made to Chad Peterson regarding existing utilities in the immediate vicinity of the Hanover Street Crossing. Mr. Peterson mentioned there were existing utilities in the vicinity as follows:

- A 6 inch water main north of the tracks along Hanover Street, terminating at an existing fire hydrant north of the tracks. This water main does not cross under the tracks.
- A 2 inch copper water line south of tracks along Hanover Street, terminating with a stub end south of the tracks. This water line does not cross under the tracks.
- A 48 inch storm sewer along the west side of Hanover Street that crosses under the tracks.

**Appendix E.
AASHTO
Approaching
Sight Distance**

AASHTO Case A - Moving Vehicle to safely cross or stop at RR crossing w/ distance from near rail to stopbar = 25.00 ft., downstream clearance = 15.00 ft., SKEW = 0.00 degrees, lane width = 12 ft., approach grade (G) = 0%, and vehicle length = 65 ft.



**Appendix F.
Right of Way
Map and Street
Station Maps**





**Appendix G.
Letter of
Support from
Amtrak**

NATIONAL RAILROAD PASSENGER CORPORATION
500 W. Jackson Blvd., 2nd Floor, Chicago, IL 60661



August 8, 2013

Mr. Daniel Sabatka, P.E.
Director Engineering Works – U.S. East
Canadian Pacific Railway
11306 Franklin Avenue
Franklin Park, IL 60131

Dear Mr. Sabatka:

This letter is written in support of the Canadian Pacific Railway's applications to close the following two at-grade crossings in the State of Wisconsin.

DOT #390813L
Mauston, WI
Hanover Street
Milepost 214.56 – Tomah Subdivision

DOT #390877X
Sparta, WI
Hazelwood Avenue
Milepost 255.85 – Tomah Subdivision

Closures of these crossings will enhance operational safety by eliminating the potential of vehicle/train collisions.

Sincerely,

A handwritten signature in blue ink that reads "Michael W. Franke".

Michael W. Franke
Chief, State Government Contracts

MWF/yb

Cc: Richard Hum
Specialist Passenger Rail Development
Canadian Pacific Railway
401 9th Avenue, SW
Calgary, Alberta T2P4Z4
Canada



About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of \$6 billion.

More information on AECOM and its services can be found at www.aecom.com.

LaSalle Plaza
800 LaSalle Avenue, Suite 110
Minneapolis, MN 55402
T: 612.376.2000

T: 612.376.2000

Contractor's Application For Payment No. 4

To (Owner):City of Mauston	Application Period:08/17/13 - 09/20/13	Application Date:09/20/13
Project: Street & Park Improvements Project "A"	From (Contractor):A-1 Excavating, Inc	Notice to Proceed Date:04/15/13
	Contract:	Via (Engineer) MSA
Owner's Contract No.:	Contractor's Project No.:1314	Engineer's Project No.:00044031

Application for Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS	\$0.00	\$0.00
NET CHANGE BY CHANGE ORDERS	\$0.00	

1. ORIGINAL CONTRACT PRICE	\$ 2,050,973.95
2. Net change by Change Orders	\$ 0.00
3. CURRENT CONTRACT PRICE (Line 1 + 2)	\$ 2,050,973.95
4. TOTAL COMPLETED AND STORED TO DATE (Column G on Progress Estimate)	\$ 1,615,531.11
5. RETAINAGE:	
a. <u>2.5</u> % x \$ <u>1,615,531.11</u> Work Completed	\$ 40,388.28
b. _____ % x \$ _____ Stored Material	\$ _____
c. Total Retainage (Line 5a + Line 5b)	\$ 40,388.28
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)	\$ 1,575,142.83
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	\$ 1,431,368.69
8. AMOUNT DUE THIS APPLICATION	\$ 143,774.14
9. BALANCE TO FINISH, PLUS RETAINAGE (Column I on Progress Estimate + Line 5 above)	\$ 435,442.84

Contractor's Certification

The undersigned Contractor certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By:  Date: 2-OCT-13

Payment of: \$ 143,774.14
(Line 8 or other - attach explanation of other amount)

is recommended by:  (Engineer) 10/2/13 (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ (Date)
Funding Agency (if applicable)

Progress Estimate

Contractor's Application

For (contract):City of Mauston - 2013 Street and Park Improvements - Project A					Application Number:4						
Application Period:08/17/13 - 09/20/13					Application Date:09/20/13						
A		B		C	D	E	F	G	H	I	
Bid Item No.	Description	Bid Quantity	Unit Price	Bid Value	Work Completed		Materials Presently Stored (not in C or E)	Total Completed and Stored to Date		Balance to Finish	
					From Previous Application	Quantity this Period		Value this Application	\$ (C + E + F)		% (G / B)
1.	Mobilization, Bonds, and Insurance	1	\$54,000.00	\$54,000.00	\$54,000.00		\$0.00	\$0.00	\$54,000.00	1	\$0.00
2.	Erosion Control	1	\$6,600.00	\$6,600.00	\$6,600.00		\$0.00	\$0.00	\$6,600.00	1	\$0.00
3.	Traffic Control	1	\$9,500.00	\$9,500.00	\$9,500.00		\$0.00	\$0.00	\$9,500.00	1	\$0.00
4.	Work in Right of Way Permit and Coordination	1	\$9,000.00	\$9,000.00	\$9,000.00		\$0.00	\$0.00	\$9,000.00	1	\$0.00
5.	Concrete Quality Control	1	\$100.00	\$100.00	\$100.00		\$0.00	\$0.00	\$100.00	1	\$0.00
6.	Erosion Mat	1,000	\$1.50	\$1,500.00	\$375.00	850.00	\$1,275.00	\$0.00	\$1,650.00	1.1	-\$150.00
7.	Turf and Site Restoration	1	\$22,500.00	\$22,500.00	\$22,500.00		\$0.00	\$0.00	\$22,500.00	1	\$0.00
8.	Exploratory Excavations	2	\$200.00	\$400.00	\$200.00		\$0.00	\$0.00	\$200.00	0.5	\$200.00
9.	Clearing and Grubbing	1	\$7,500.00	\$7,500.00	\$7,500.00		\$0.00	\$0.00	\$7,500.00	1	\$0.00
10.	Dewatering	1	\$20,000.00	\$20,000.00	\$20,000.00		\$0.00	\$0.00	\$20,000.00	1	\$0.00
11.	Unclassified Excavation	1	\$62,000.00	\$62,000.00	\$62,000.00		\$0.00	\$0.00	\$62,000.00	1	\$0.00
12.	Roadway Breaker Run (Owner Provided)	4,200	\$3.00	\$12,600.00	\$12,000.00	200.00	\$600.00	\$0.00	\$12,600.00	1	\$0.00
13.	Geogrid	8,075	\$2.50	\$20,187.50	\$559.03		\$0.00	\$0.00	\$559.03	0.02769164	\$19,628.48
14.	Geosynthetic	4,200	\$4.10	\$17,220.00	\$17,835.00		\$0.00	\$0.00	\$17,835.00	1.03571429	-\$615.00
15.	Excavation Below Subgrade w/ Owner Provided	1,600	\$14.00	\$22,400.00	\$4,200.00	148.00	\$2,072.00	\$0.00	\$6,272.00	0.28	\$16,128.00
16.	Excavation Below Subgrade w/ Imported Breaker	2,600	\$26.20	\$68,120.00	\$11,931.74		\$0.00	\$0.00	\$11,931.74	0.17515769	\$56,188.26
17.	Remove, Salvage, and Reinstall Existing Street	1	\$800.00	\$800.00	\$800.00		\$0.00	\$0.00	\$800.00	1	\$0.00
18.	Asphaltic Carlson Curb	15	\$5.00	\$75.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$75.00
19.	18-inch Concrete Curb and Gutter	1,200	\$15.00	\$18,000.00	\$15,900.00		\$0.00	\$0.00	\$15,900.00	0.88333333	\$2,100.00
20.	24-inch Concrete Curb and Gutter	3,525	\$8.00	\$28,200.00	\$28,216.00		\$0.00	\$0.00	\$28,216.00	1.00056738	-\$16.00
21.	30-inch Concrete Curb and Gutter	900	\$12.00	\$10,800.00	\$9,624.00		\$0.00	\$0.00	\$9,624.00	0.89111111	\$1,176.00
22.	4-inch Concrete Sidewalk & Granular Base	19,250	\$3.85	\$74,112.50	\$69,300.00		\$0.00	\$0.00	\$69,300.00	0.93506494	\$4,812.50
23.	6-inch Concrete Sidewalk/Driveway Aprons, and	5,700	\$4.50	\$25,650.00	\$18,000.00	1,008.00	\$4,536.00	\$0.00	\$22,536.00	0.87859649	\$3,114.00
24.	8-inch Concrete Sidewalk/Driveway Aprons, and	300	\$4.90	\$1,470.00	\$980.00		\$0.00	\$0.00	\$980.00	0.66666667	\$490.00
25.	Multi-Use Path with Granular Base	11,000	\$3.50	\$38,500.00	\$35,000.00	480.00	\$1,680.00	\$0.00	\$36,680.00	0.95272727	\$1,820.00
26.	Concrete Terrace	175	\$5.00	\$875.00	\$500.00		\$0.00	\$0.00	\$500.00	0.57142857	\$375.00
27.	Concrete Steps	15	\$75.00	\$1,125.00	\$0.00	25.65	\$1,924.00	\$0.00	\$1,924.00	1.7102222	-\$799.00
28.	Concrete High Early and Phasing	1	\$2,500.00	\$2,500.00	\$2,500.00		\$0.00	\$0.00	\$2,500.00	1	\$0.00
29.	Medium Rip-Rap with Fabric	65	\$45.00	\$2,925.00	\$2,700.00		\$0.00	\$0.00	\$2,700.00	0.92307692	\$225.00
30.	Remove, Salvage, and Reinstall Existing Brick	1	\$500.00	\$500.00	\$500.00		\$0.00	\$0.00	\$500.00	1	\$0.00
31.	Extend Existing Retaining Wall	40	\$50.00	\$2,000.00	\$1,000.00	20.00	\$1,000.00	\$0.00	\$2,000.00	1	\$0.00
32.	Decorative Landscape Stone with Weed Barrier	1	\$750.00	\$750.00	\$375.00	0.50	\$375.00	\$0.00	\$750.00	1	\$0.00
33.	Restore Landscape Beds	1	\$750.00	\$750.00	\$375.00	0.50	\$375.00	\$0.00	\$750.00	1	\$0.00
34.	Detectable Warning Fields	176	\$50.00	\$8,800.00	\$8,400.00		\$0.00	\$0.00	\$8,400.00	0.95454545	\$400.00
35.	4-inch Yellow Epoxy	3,650	\$1.00	\$3,650.00	\$3,591.00		\$0.00	\$0.00	\$3,591.00	0.98383562	\$59.00
36.	4-inch White Epoxy	3,700	\$1.00	\$3,700.00	\$2,507.00		\$0.00	\$0.00	\$2,507.00	0.67756757	\$1,193.00
37.	6-inch White Epoxy Border (Crosswalks)	700	\$5.30	\$3,710.00	\$4,383.10		\$0.00	\$0.00	\$4,383.10	1.18142857	-\$673.10
38.	18-inch White Epoxy	120	\$7.60	\$912.00	\$524.40		\$0.00	\$0.00	\$524.40	0.575	\$387.60
39.	Window Sidewalk Grates	2	\$550.00	\$1,100.00	\$1,100.00		\$0.00	\$0.00	\$1,100.00	1	\$0.00
40.	ADA Accessible White Epoxy Symbol	6	\$75.00	\$450.00	\$450.00		\$0.00	\$0.00	\$450.00	1	\$0.00
41.	Curb Painting, Yellow Epoxy	925	\$6.00	\$5,550.00	\$5,298.00		\$0.00	\$0.00	\$5,298.00	0.95459459	\$252.00
42.	Curb Painting, Blue Epoxy	60	\$10.00	\$600.00	\$395.00		\$0.00	\$0.00	\$395.00	0.65833333	\$205.00
43.	D11-1 Sign	1	\$160.00	\$160.00	\$160.00		\$0.00	\$0.00	\$160.00	1	\$0.00
44.	M6-1 Sign	1	\$160.00	\$160.00	\$160.00		\$0.00	\$0.00	\$160.00	1	\$0.00
45.	R1-1 Sign	6	\$125.65	\$753.90	\$753.90		\$0.00	\$0.00	\$753.90	1	\$0.00
46.	R2-1 Sign	4	\$102.50	\$410.00	\$410.00		\$0.00	\$0.00	\$410.00	1	\$0.00

47.	R3-1 Sign	1	\$84.00	\$84.00	\$84.00		\$0.00	\$0.00	\$84.00	1	\$0.00
48.	R3-53R Sign	1	\$102.50	\$102.50	\$102.50		\$0.00	\$0.00	\$102.50	1	\$0.00
49.	R5-1 Sign	2	\$125.65	\$251.30	\$251.30		\$0.00	\$0.00	\$251.30	1	\$0.00
50.	R6-2L Sign	1	\$102.50	\$102.50	\$102.50		\$0.00	\$0.00	\$102.50	1	\$0.00
51.	R6-2R Sign	1	\$102.50	\$102.50	\$102.50		\$0.00	\$0.00	\$102.50	1	\$0.00
52.	R6-7 Sign	1	\$102.50	\$102.50	\$102.50		\$0.00	\$0.00	\$102.50	1	\$0.00
53.	R7-2D Sign	15	\$75.50	\$1,132.50	\$1,132.50		\$0.00	\$0.00	\$1,132.50	1	\$0.00
54.	R7-8A Sign	7	\$43.50	\$304.50	\$304.50		\$0.00	\$0.00	\$304.50	1	\$0.00
55.	R7-8V Sign	4	\$14.00	\$56.00	\$56.00		\$0.00	\$0.00	\$56.00	1	\$0.00
56.	R7-51R Sign	1	\$75.50	\$75.50	\$75.50		\$0.00	\$0.00	\$75.50	1	\$0.00
57.	S1-1 Sign	5	\$200.00	\$1,000.00	\$1,000.00		\$0.00	\$0.00	\$1,000.00	1	\$0.00
58.	W11-2	2	\$140.00	\$280.00	\$280.00		\$0.00	\$0.00	\$280.00	1	\$0.00
59.	W14-1 Sign	1	\$119.90	\$119.90	\$119.90		\$0.00	\$0.00	\$119.90	1	\$0.00
60.	Remove, Salvage, and Reinstall Existing Park Signs	2	\$300.00	\$600.00	\$150.00		\$0.00	\$0.00	\$150.00	0.25	\$450.00
61.	Remove, Salvage, and Reinstall Existing Street	1	\$750.00	\$750.00	\$750.00		\$0.00	\$0.00	\$750.00	1	\$0.00
62.	Bollard	2	\$500.00	\$1,000.00	\$1,000.00		\$0.00	\$0.00	\$1,000.00	1	\$0.00
63.	Fishing Pier Abutment	1	\$15,000.00	\$15,000.00	\$15,000.00		\$0.00	\$0.00	\$15,000.00	1	\$0.00
Water Main											
64.	Hydrant, Complete	3	\$3,220.00	\$9,660.00	\$12,880.00		\$0.00	\$0.00	\$12,880.00	1.33333333	-\$3,220.00
65.	1-inch Copper Water Service	300	\$27.00	\$8,100.00	\$11,286.00		\$0.00	\$0.00	\$11,286.00	1.39333333	-\$3,186.00
66.	1-inch Corporation, Curb Stop, and Box	9	\$440.00	\$3,960.00	\$4,400.00		\$0.00	\$0.00	\$4,400.00	1.11111111	-\$440.00
67.	4-inch Ductile Iron Water Main	45	\$42.00	\$1,890.00	\$1,428.00	11.00	\$462.00	\$0.00	\$1,890.00	1	\$0.00
68.	6-inch Ductile Iron Water Main	145	\$43.00	\$6,235.00	\$7,439.00		\$0.00	\$0.00	\$7,439.00	1.19310345	-\$1,204.00
69.	8-inch Ductile Iron Water Main	2,045	\$49.00	\$100,205.00	\$99,372.00	65.00	\$3,185.00	\$0.00	\$102,557.00	1.02347188	-\$2,352.00
70.	6-inch Valve and Box	4	\$1,120.00	\$4,480.00	\$4,480.00		\$0.00	\$0.00	\$4,480.00	1	\$0.00
71.	8-inch Valve and Box	9	\$1,470.00	\$13,230.00	\$13,230.00		\$0.00	\$0.00	\$13,230.00	1	\$0.00
72.	6-inch X 6-inch Tee	1	\$410.00	\$410.00	\$410.00		\$0.00	\$0.00	\$410.00	1	\$0.00
73.	6-inch X 6-inch X 8-inch Tee	1	\$575.00	\$575.00	\$0.00	1.00	\$575.00	\$0.00	\$575.00	1	\$0.00
74.	8-inch X 4-inch Tee	1	\$370.00	\$370.00	\$370.00		\$0.00	\$0.00	\$370.00	1	\$0.00
75.	8-inch X 6-inch Tee	3	\$475.00	\$1,425.00	\$1,900.00		\$0.00	\$0.00	\$1,900.00	1.33333333	-\$475.00
76.	8-inch X 8-inch Tee	1	\$525.00	\$525.00	\$525.00		\$0.00	\$0.00	\$525.00	1	\$0.00
77.	12-inch X 8-inch Cross	1	\$900.00	\$900.00	\$900.00		\$0.00	\$0.00	\$900.00	1	\$0.00
78.	8-inch by 6-inch Reducer	1	\$275.00	\$275.00	\$275.00		\$0.00	\$0.00	\$275.00	1	\$0.00
79.	4-inch 90-Degree Bend	1	\$190.00	\$190.00	\$570.00		\$0.00	\$0.00	\$570.00	3	-\$380.00
80.	8-inch 90-Degree Bend	1	\$340.00	\$340.00	\$340.00		\$0.00	\$0.00	\$340.00	1	\$0.00
81.	Connect to Existing Water Main	7	\$950.00	\$6,650.00	\$6,650.00	2.00	\$1,900.00	\$0.00	\$8,550.00	1.28571429	-\$1,900.00
82.	Connect to Existing Water Service	9	\$95.00	\$855.00	\$950.00		\$0.00	\$0.00	\$950.00	1.11111111	-\$95.00
83.	Remove Existing Water Main & Valves	1	\$1,000.00	\$1,000.00	\$1,000.00		\$0.00	\$0.00	\$1,000.00	1	\$0.00
84.	Abandon Existing Water Main	1	\$250.00	\$250.00	\$250.00		\$0.00	\$0.00	\$250.00	1	\$0.00
85.	Reconstruct Existing Manhole	1	\$600.00	\$600.00	\$600.00		\$0.00	\$0.00	\$600.00	1	\$0.00
86.	Utility Insulation	130	\$2.00	\$260.00	\$128.00	66.00	\$132.00	\$0.00	\$260.00	1	\$0.00
87.	Rock Excavation	400	\$0.01	\$4.00	\$4.00		\$0.00	\$0.00	\$4.00	1	\$0.00
88.	Imported Granular Backfill	400	\$7.00	\$2,800.00	\$1,323.00	212.43	\$1,487.01	\$0.00	\$2,810.01	1.003575	-\$10.01
89.	Trench Undercut, Backfill, and Fabric	75	\$1.00	\$75.00	\$999.00		\$0.00	\$0.00	\$999.00	13.32	-\$924.00
90.	Remove and Salvage Existing Hydrant and Valve	2	\$400.00	\$800.00	\$800.00		\$0.00	\$0.00	\$800.00	1	\$0.00
91.	Remove, Salvage, and Reinstall Existing Hydrant	1	\$900.00	\$900.00	\$0.00	1.00	\$900.00	\$0.00	\$900.00	1	\$0.00
92.	Type 1 Manhole, Complete	6	\$1,750.00	\$10,500.00	\$8,750.00		\$0.00	\$0.00	\$8,750.00	0.83333333	\$1,750.00
93.	4-inch Sanitary Sewer Lateral	300	\$22.00	\$6,600.00	\$4,444.00		\$0.00	\$0.00	\$4,444.00	0.67333333	\$2,156.00
94.	8-inch Sanitary Sewer	750	\$39.00	\$29,250.00	\$27,729.00	31.00	\$1,209.00	\$0.00	\$28,938.00	0.98933333	\$312.00
95.	Rock Excavation	185	\$0.01	\$1.85	\$1.85		\$0.00	\$0.00	\$1.85	1	\$0.00
96.	Imported Granular Backfill	670	\$1.00	\$670.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$670.00
97.	Connect to Existing Sanitary Sewer	1	\$750.00	\$750.00	\$3,000.00		\$0.00	\$0.00	\$3,000.00	4	-\$2,250.00
98.	Connect to Existing Sanitary Sewer (Core and	1	\$4,500.00	\$4,500.00	\$4,500.00		\$0.00	\$0.00	\$4,500.00	1	\$0.00
99.	Adjust Existing Sanitary Sewer Manhole	1	\$300.00	\$300.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$300.00

100.	Adjust & Waterproof Existing Sanitary Manhole	1	\$500.00	\$500.00	\$500.00							
101.	Abandon Existing Sanitary Sewer & Remove	1	\$2,000.00	\$2,000.00	\$2,000.00		\$0.00	\$0.00	\$500.00	1		\$0.00
102.	Temporary Existing Sewer Main Connection	1	\$600.00	\$600.00	\$600.00		\$0.00	\$0.00	\$2,000.00	1		\$0.00
Storm Sewer												
103.	Type 1 Storm Sewer Manhole	2	\$1,750.00	\$3,500.00	\$3,500.00		\$0.00	\$0.00	\$3,500.00	1		\$0.00
104.	Type 1 Storm Sewer Inlet Manhole	4	\$1,850.00	\$7,400.00	\$7,400.00		\$0.00	\$0.00	\$7,400.00	1		\$0.00
105.	Type 3 Storm Sewer Manhole	1	\$2,900.00	\$2,900.00	\$2,900.00		\$0.00	\$0.00	\$2,900.00	1		\$0.00
106.	Type 3 Storm Sewer Inlet	11	\$1,220.00	\$13,420.00	\$13,420.00		\$0.00	\$0.00	\$13,420.00	1		\$0.00
107.	30-Inch Catch Basin	3	\$1,300.00	\$3,900.00	\$2,600.00		\$0.00	\$0.00	\$2,600.00	0.66666667		\$1,300.00
108.	15-Inch RCP Storm Sewer Pipe	805	\$29.00	\$23,345.00	\$15,225.00		\$0.00	\$0.00	\$15,225.00	0.65217391		\$8,120.00
109.	18-Inch RCP Storm Sewer Pipe	64	\$32.00	\$2,048.00	\$2,368.00		\$0.00	\$0.00	\$2,368.00	1.15625		-\$320.00
110.	21-Inch RCP Storm Sewer Pipe	106	\$38.00	\$4,028.00	\$4,104.00		\$0.00	\$0.00	\$4,104.00	1.01886792		-\$76.00
111.	24-Inch RCP Storm Sewer Pipe	205	\$40.00	\$8,200.00	\$8,200.00		\$0.00	\$0.00	\$8,200.00	1		\$0.00
112.	30-Inch RCP Storm Sewer Pipe	54	\$54.00	\$2,916.00	\$2,916.00		\$0.00	\$0.00	\$2,916.00	1		\$0.00
113.	15-inch RCP Apron Endwall with Cut-off Wall and	1	\$1,010.00	\$1,010.00	\$0.00		\$0.00	\$0.00	\$0.00	0		\$1,010.00
114.	24-inch RCP Apron Endwall with Cut-off Wall and	1	\$1,560.00	\$1,560.00	\$1,560.00		\$0.00	\$0.00	\$1,560.00	1		\$0.00
115.	30-inch RCP Apron Endwall with Cut-off Wall and	1	\$2,050.00	\$2,050.00	\$2,050.00		\$0.00	\$0.00	\$2,050.00	1		\$0.00
116.	Sidewalk Trench Drain	4	\$600.00	\$2,400.00	\$1,800.00	1.00	\$600.00	\$0.00	\$2,400.00	1		\$0.00
117.	Adjust Existing Storm Sewer Manhole	1	\$300.00	\$300.00	\$300.00		\$0.00	\$0.00	\$300.00	1		\$0.00
118.	Trench Undercut, Backfill, and Fabric	50	\$1.00	\$50.00	\$50.00		\$0.00	\$0.00	\$50.00	1		\$0.00
119.	Connect to Existing Storm Sewer	1	\$500.00	\$500.00	\$500.00		\$0.00	\$0.00	\$500.00	1		\$0.00
120.	Remove Existing Storm Sewer	1	\$2,500.00	\$2,500.00	\$2,500.00		\$0.00	\$0.00	\$2,500.00	1		\$0.00
STREET LIGHTING & ELECTRICAL												
121.	Electrical Allowance	1	\$0.00	\$5,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0		\$5,000.00
122.	General Electrical Construction	1	\$53,950.00	\$53,950.00	\$53,950.00		\$0.00	\$0.00	\$53,950.00	1		\$0.00
123.	General Electrical Demolition	1	\$6,500.00	\$6,500.00	\$6,500.00		\$0.00	\$0.00	\$6,500.00	1		\$0.00
124.	Type 1 Base - B1	16	\$500.00	\$8,000.00	\$7,500.00		\$0.00	\$0.00	\$7,500.00	0.9375		\$500.00
125.	Type 2 Base - B2	4	\$500.00	\$2,000.00	\$500.00		\$0.00	\$0.00	\$500.00	0.25		\$1,500.00
126.	Type 3 Base - B3	11	\$465.00	\$5,115.00	\$5,115.00		\$0.00	\$0.00	\$5,115.00	1		\$0.00
127.	Type 4 Base - B4	6	\$665.00	\$3,990.00	\$3,990.00		\$0.00	\$0.00	\$3,990.00	1		\$0.00
128.	Type 4 Base - B5	4	\$475.00	\$1,900.00	\$1,900.00		\$0.00	\$0.00	\$1,900.00	1		\$0.00
129.	Pole - P1	16	\$1,665.00	\$26,640.00	\$26,640.00		\$0.00	\$0.00	\$26,640.00	1		\$0.00
130.	Pole - P2	6	\$1,175.00	\$7,050.00	\$7,050.00		\$0.00	\$0.00	\$7,050.00	1		\$0.00
131.	Pole - P3	2	\$2,150.00	\$4,300.00	\$0.00		\$0.00	\$0.00	\$0.00	0		\$4,300.00
132.	Fixture - Y1A	20	\$1,675.00	\$33,500.00	\$0.00	25.00	\$41,875.00	\$0.00	\$41,875.00	1.25		-\$8,375.00
133.	Fixture - Y2A	4	\$1,550.00	\$6,200.00	\$0.00		\$0.00	\$0.00	\$0.00	0		\$6,200.00
134.	Fixture - Y3A	11	\$1,125.00	\$12,375.00	\$12,375.00		\$0.00	\$0.00	\$12,375.00	1		\$0.00
135.	Pull Box	6	\$575.00	\$3,450.00	\$3,450.00		\$0.00	\$0.00	\$3,450.00	1		\$0.00
136.	20 - PP - 1 Existing Lift Station Power Pedestal	1	\$9,675.00	\$9,675.00	\$9,675.00		\$0.00	\$0.00	\$9,675.00	1		\$0.00
137.	30 - LP - 1 Rectangular Shelter Power Pedestal	1	\$1,075.00	\$1,075.00	\$1,075.00		\$0.00	\$0.00	\$1,075.00	1		\$0.00
138.	40 - LP - 1 Plaza Area Shelter Power Pedestal	1	\$1,075.00	\$1,075.00	\$1,075.00		\$0.00	\$0.00	\$1,075.00	1		\$0.00
139.	50 - LP - 1 Restroom MTR Socket, Service, and	1	\$1,350.00	\$1,350.00	\$1,350.00		\$0.00	\$0.00	\$1,350.00	1		\$0.00
140.	50 - LCP - 1 Restroom Building Lighting Control	1	\$10,500.00	\$10,500.00	\$10,500.00		\$0.00	\$0.00	\$10,500.00	1		\$0.00
141.	Reconnect 50 - LP - B	1	\$400.00	\$400.00	\$400.00		\$0.00	\$0.00	\$400.00	1		\$0.00
142.	STR 20 - Lift Station Electrical Construction	1	\$2,950.00	\$2,950.00	\$2,950.00		\$0.00	\$0.00	\$2,950.00	1		\$0.00
143.	STR 50 - Existing Restroom & Lift Station	1	\$1,300.00	\$1,300.00	\$650.00	0.50	\$650.00	\$0.00	\$1,300.00	1		\$0.00
144.	Remove, Salvage, and Reinstall Existing Light Pole	1	\$260.00	\$260.00	\$260.00		\$0.00	\$0.00	\$260.00	1		\$0.00
MUNICIPAL PARKING LOT												
145.	Unclassified Excavation	1	\$10,000.00	\$10,000.00	\$10,000.00		\$0.00	\$0.00	\$10,000.00	1		\$0.00
146.	12-inch Crushed Aggregate Base Course	1,375	\$10.80	\$14,850.00	\$17,117.78		\$0.00	\$0.00	\$17,117.78	1.15271273		-\$2,267.78
147.	3.5-inch Asphaltic Concrete Pavement	400	\$67.23	\$26,892.00	\$23,541.93		\$0.00	\$0.00	\$23,541.93	0.875425		\$3,350.07

148.	4-inch White Pavement Marking	1,100	\$1.00	\$1,100.00	\$800.00	230.00	\$230.00	\$0.00	\$1,030.00	0.93636364	\$70.00
149.	18-inch Concrete Curb and Gutter	905	\$15.50	\$14,027.50	\$14,368.50		\$0.00	\$0.00	\$14,368.50	1.02430939	-\$341.00
150.	18-inch White Pavement Marking	12	\$7.50	\$90.00	\$120.00		\$0.00	\$0.00	\$120.00	1.33333333	-\$30.00
151.	White Directional Arrow Pavement Marking	10	\$180.00	\$1,800.00	\$1,620.00		\$0.00	\$0.00	\$1,620.00	0.9	\$180.00
152.	Retaining Wall	800	\$37.75	\$30,200.00	\$32,993.50		\$0.00	\$0.00	\$32,993.50	1.0925	-\$2,793.50
153.	Type 3 Storm Inlet	4	\$1,175.00	\$4,700.00	\$2,350.00		\$0.00	\$0.00	\$2,350.00	0.5	\$2,350.00
154.	15-inch RCP Storm Sewer	85	\$29.00	\$2,465.00	\$2,291.00		\$0.00	\$0.00	\$2,291.00	0.92941176	\$174.00
155.	4-inch Concrete Sidewalk with Granular Base	1,825	\$4.50	\$8,212.50	\$7,290.00		\$0.00	\$0.00	\$7,290.00	0.88767123	\$922.50
156.	Landscaping Allowance	1	\$6,000.00	\$6,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$6,000.00
157.	Clearing and Grubbing	1	\$1,200.00	\$1,200.00	\$1,200.00		\$0.00	\$0.00	\$1,200.00	1	\$0.00
158.	Turf and Site Restoration	1	\$2,000.00	\$2,000.00	\$2,000.00		\$0.00	\$0.00	\$2,000.00	1	\$0.00
159.	Repair Concrete Retaining Wall	1	\$2,500.00	\$2,500.00	\$2,500.00		\$0.00	\$0.00	\$2,500.00	1	\$0.00
160.	Parking Wheel Stop	2	\$350.00	\$700.00	\$1,050.00		\$0.00	\$0.00	\$1,050.00	1.5	-\$350.00
161.	R1-1 Sign	1	\$120.00	\$120.00	\$120.00		\$0.00	\$0.00	\$120.00	1	\$0.00
162.	R5-1 Sign	2	\$120.00	\$240.00	\$240.00		\$0.00	\$0.00	\$240.00	1	\$0.00
163.	R6-2L Sign	1	\$100.00	\$100.00	\$100.00		\$0.00	\$0.00	\$100.00	1	\$0.00
164.	R7-2D Sign	4	\$75.00	\$300.00	\$300.00		\$0.00	\$0.00	\$300.00	1	\$0.00
165.	W16-5P Sign	1	\$90.00	\$90.00	\$90.00		\$0.00	\$0.00	\$90.00	1	\$0.00
166.	R-Special	1	\$150.00	\$150.00	\$150.00		\$0.00	\$0.00	\$150.00	1	\$0.00
167.	Remove, Salvage, and Reinstall Bushes	1	\$800.00	\$800.00	\$0.00	0.25	\$200.00	\$0.00	\$200.00	0.25	\$600.00
168.	Railing	165	\$195.00	\$32,175.00	\$27,885.00		\$0.00	\$0.00	\$27,885.00	0.86666667	\$4,290.00
ALLEY RECONSTRUCTION											
169.	Remove Existing Asphalt Pavement	1	\$1,000.00	\$1,000.00	\$1,000.00		\$0.00	\$0.00	\$1,000.00	1	\$0.00
170.	Excavation Below Subgrade	200	\$0.01	\$2.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$2.00
171.	Excavation Below Subgrade w/ Imported Breaker	25	\$28.20	\$705.00	\$0.00	219.86	\$6,200.01	\$0.00	\$6,200.01	8.79434062	-\$5,495.01
172.	Geogrid	75	\$2.60	\$195.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$195.00
173.	4-inch Asphaltic Concrete Pavement	400	\$62.73	\$25,092.00	\$13,800.60		\$0.00	\$0.00	\$13,800.60	0.55	\$11,291.40
174.	4-inch White Pavement Marking	1,090	\$1.00	\$1,090.00	\$0.00	154.50	\$154.50	\$0.00	\$154.50	0.14174312	\$935.50
175.	Crushed Aggregate Base Course	50	\$11.30	\$565.00	\$565.00		\$0.00	\$0.00	\$565.00	1	\$0.00
RIVERSIDE BOAT LAUNCH											
176.	Mobilization, Bonds, and Insurance	1	\$4,000.00	\$4,000.00	\$0.00	1.00	\$4,000.00	\$0.00	\$4,000.00	1	\$0.00
177.	Turf and Site Restoration	1	\$2,000.00	\$2,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$2,000.00
178.	Turbidity Barrier	1	\$8,000.00	\$8,000.00	\$0.00	1.00	\$8,000.00	\$0.00	\$8,000.00	1	\$0.00
179.	Traffic Control	1	\$800.00	\$800.00	\$0.00	1.00	\$800.00	\$0.00	\$800.00	1	\$0.00
180.	Erosion Control	1	\$1,800.00	\$1,800.00	\$0.00	1.00	\$1,800.00	\$0.00	\$1,800.00	1	\$0.00
181.	Erosion Mat	50	\$2.00	\$100.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$100.00
182.	Clearing and Grubbing	1	\$1,000.00	\$1,000.00	\$0.00	1.00	\$1,000.00	\$0.00	\$1,000.00	1	\$0.00
183.	Concrete Quality Control	1	\$100.00	\$100.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$100.00
184.	Unclassified Excavation	1	\$12,000.00	\$12,000.00	\$0.00	1.00	\$12,000.00	\$0.00	\$12,000.00	1	\$0.00
185.	Finished Breaker Run	5,150	\$10.80	\$55,620.00	\$0.00	469.30	\$5,068.44	\$0.00	\$5,068.44	0.09112621	\$50,551.56
186.	Geotextile	3,900	\$4.03	\$15,717.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$15,717.00
187.	Excavation below Subgrade w/ Imported Breaker	2,600	\$26.20	\$68,120.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$68,120.00
188.	Reinforced Concrete Launch and Base w/	1	\$26,000.00	\$26,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$26,000.00
189.	Concrete Ramp Keyway with Base	2	\$5,500.00	\$11,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$11,000.00
190.	3.5-Inch Asphaltic Concrete Pavement	800	\$66.19	\$52,952.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$52,952.00
191.	12-inches Crushed Aggregate Base Course (Owner	2,550	\$4.40	\$11,220.00	\$0.00	858.00	\$3,775.20	\$0.00	\$3,775.20	0.33647059	\$7,444.80
192.	18-inch Concrete Curb and Gutter	170	\$15.00	\$2,550.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$2,550.00
193.	Medium Rip-Rap with Fabric	225	\$45.00	\$10,125.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$10,125.00
194.	7-inch Concrete Approach with 8-inch Base	500	\$7.75	\$3,875.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$3,875.00
195.	4-inch Concrete Sidewalk with Granular Base	2,400	\$4.50	\$10,800.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$10,800.00

196.	Removable Bollard	2	\$600.00	\$1,200.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,200.00
197.	4-inch White Pavement Markings	1,700	\$1.00	\$1,700.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,700.00
198.	White Direction Arrow Pavement Marking	6	\$180.00	\$1,080.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,080.00
199.	ADA Accessible White Symbol Pavement Marking	1	\$80.00	\$80.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$80.00
200.	Parking Wheel Stop	11	\$120.00	\$1,320.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,320.00
201.	R1-1 Sign	1	\$120.00	\$120.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$120.00
202.	R5-1 Sign	1	\$100.00	\$100.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$100.00
203.	R6-2R Sign	1	\$100.00	\$100.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$100.00
204.	R7-112 Sign	1	\$40.00	\$40.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$40.00
205.	R7-8A Sign	1	\$14.00	\$14.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$14.00
206.	R7-8V Sign	1	\$140.00	\$140.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$140.00
207.	Sign Post	2	\$100.00	\$200.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$200.00
208.	Detectable Warning Field	16	\$50.00	\$800.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$800.00
209.	Message Board, Complete	1	\$3,000.00	\$3,000.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$3,000.00
Storm Sewer											
210.	Type I Manhole	1	\$3,200.00	\$3,200.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$3,200.00
211.	Storm Inlet, Type 3	1	\$1,220.00	\$1,220.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,220.00
212.	18-inch RCP Storm Sewer	30	\$34.00	\$1,020.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,020.00
213.	18-inch RCP Apron Endwall with Cut-Off Wall and	1	\$1,250.00	\$1,250.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,250.00
214.	Trench Drain	40	\$215.00	\$8,600.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$8,600.00
215.	18-inch RCP Storm Sewer Bend	1	\$620.00	\$620.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$620.00
Water Main											
216.	Remove and Salvage Existing Hydrant and Valve	1	\$400.00	\$400.00	\$0.00	2.25	\$900.00	\$0.00	\$900.00	2.25	-\$500.00
217.	Connect to Existing Water Main	1	\$1,100.00	\$1,100.00	\$0.00	1.00	\$1,100.00	\$0.00	\$1,100.00	1	\$0.00
218.	Hydrant, Complete	1	\$3,225.00	\$3,225.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$3,225.00
219.	6-inch Valve and Box	1	\$1,120.00	\$1,120.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,120.00
220.	6-inch Ductile Iron Water Main	18	\$50.00	\$900.00	\$0.00	18.00	\$900.00	\$0.00	\$900.00	1	\$0.00
AAI ADDITIVE ALTERNATE 1 - Concrete											
1.	7-inch Roadway Concrete Pavement	9,900	\$32.00	\$316,800.00	\$288,000.00	900.00	\$28,800.00	\$0.00	\$316,800.00	1	\$0.00
2.	Concrete High Early and Phasing	1	\$2,500.00	\$2,500.00	\$2,500.00		\$0.00	\$0.00	\$2,500.00	1	\$0.00
3.	9-inch Roadway Crushed Aggregate Base Course	13,000	\$3.00	\$39,000.00	\$37,500.00	500.00	\$1,500.00	\$0.00	\$39,000.00	1	\$0.00
4.	9-inch Roadway Crushed Aggregate Base Course	100	\$11.10	\$1,110.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$1,110.00
5.	7-inch Colored Roadway Concrete Pavement	2,100	\$5.50	\$11,550.00	\$5,819.00	631.00	\$3,470.50	\$0.00	\$9,289.50	0.80428571	\$2,260.50
6.	Concrete Quality Control - Roadway	1	\$100.00	\$100.00	\$50.00	0.50	\$50.00	\$0.00	\$100.00	1	\$0.00
7.	3.5-inch Driveway Asphaltic Concrete Pavement	165	\$107.00	\$17,655.00	\$11,945.48		\$0.00	\$0.00	\$11,945.48	0.67660606	\$5,709.52
8.	9-inch Driveway Crushed Aggregate Base Course	415	\$11.50	\$4,772.50	\$3,513.94		\$0.00	\$0.00	\$3,513.94	0.73628916	\$1,258.56
9.	Tack Coat	20	\$5.00	\$100.00	\$0.00		\$0.00	\$0.00	\$0.00	0	\$100.00
10.	Under Drain	4,400	\$7.00	\$30,800.00	\$30,100.00	100.00	\$700.00	\$0.00	\$30,800.00	1	\$0.00
Totals				\$2,050,973.95	\$1,468,070.45		\$147,460.66		\$1,615,531.11		\$435,442.84