



Agenda

City Council Work Session

Oelwein City Hall, 20 Second Avenue SW, Oelwein, Iowa

6:30 PM

February 24, 2020
Oelwein, Iowa

Mayor: Brett DeVore

Mayor Pro Tem: Warren Fisk

Council Members: Matt Weber, Renee Cantrell, Tom Stewart, Charles Gerdts, Karen Seeders

Pledge of Allegiance

Discussions

- [1.](#) Discussion on Wings East Road Construction
2. Discussion on Housing

Adjournment

In compliance with the Americans with Disabilities Act, those requiring accommodation for Council meetings should notify the City Clerk's Office at least 24 hours prior to the meeting at 319-283-5440

Wings East Pavement Improvements Design Memo

DATE: February 24, 2020

TO: Mayor & City Council
City of Oelwein
20 2nd Ave SW
Oelwein, IA 50662

FOX P.N. 1022-18A.420

PROJECT SUMMARY

FOX Engineering has been tasked by the City of Oelwein to investigate pavement and drainage improvements for the Wings East Subdivision. In April of 2019, FOX submitted five preliminary design options for staff and council consideration. The option of doing a Special Assessment for the project was also discussed. FOX was recently given a budget of \$650,000 for the Wings East Improvements project.

FOX Engineering met with City staff and developed a proposed improvement plan that is discussed in the Proposed Improvements section of this memo. It has been determined that this project will move forward with a preliminary plat and schedule for a Special Assessment. The purpose of a preliminary assessment is to set a maximum cost that may be assessed for the project. The project will be preliminarily assessed 50% as a Special Benefit to be paid for by property owners, and 50% as a General Benefit to be paid for by the City. Council will determine if the project will be Final Assessed after final completion of the project. The proposed project has an estimated cost of \$650,000.

SCHEDULE

2.24.2020	Council Meeting (Approval of Preliminary Design Concept)
4.13.2020	Council Meeting (Preliminary Resolution of Necessity, Review of Final Design, Set Public Hearing & Bid Date)
5.05.2020	Bid Date
5.11.2020	Council Meeting (Public Hearing, Resolution of Necessity, & Award Contract)
10.16.2020	Substantial Completion
11.20.2020	Final Completion

PROPOSED IMPROVEMENTS

The proposed improvement for the Wings East subdivisions has four main components, as shown on the attached Exhibit A – Wings East Pavement Improvements:

1. Completely remove the north portion of 12th Ave NE and replace it with greenspace.
2. Remove and replace severely damaged pavement areas of 3rd St NE (270 liner feet).
3. Remove and replace undermined pavement areas on 13th Ave NE (2nd St NE to 3rd St NE).
4. Install minimal storm sewer and subdrain to help convey water away from the existing pavement.
5. Overlay portions of 3rd St NE, 2nd St NE, 12th Ave NE, and 13th Ave NE with hot mix asphalt (HMA).

Figure 1 shows the proposed cross section for the areas of the project that have existing curb and gutter. Replacing adjacent sidewalk ramps to meet ADA compliance is also included in the project.

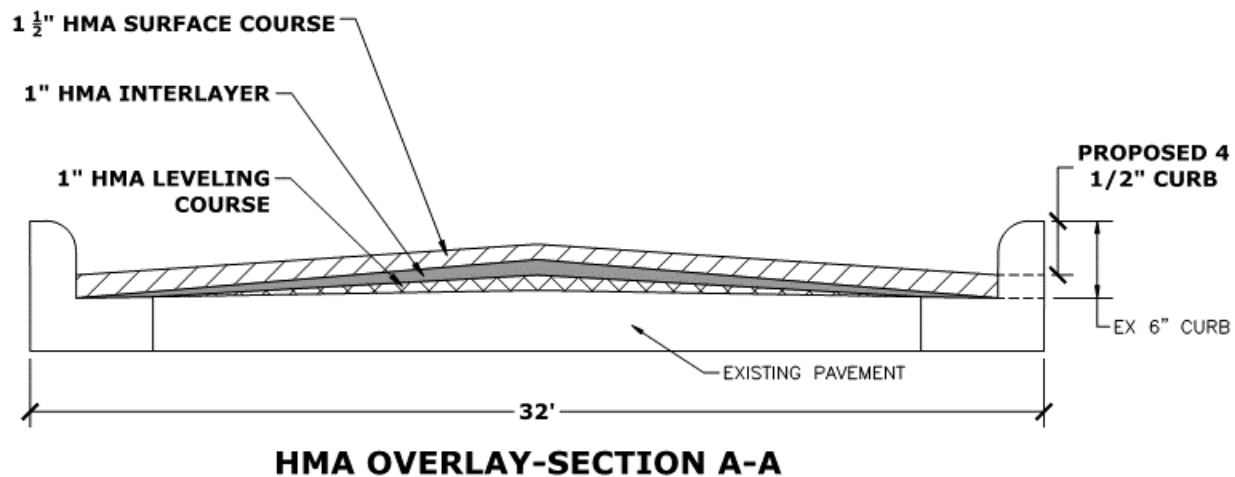


Figure 1 – Proposed HMA Overlay Section for Curbed Pavement

A 1-inch leveling course will be placed on the existing pavement in order to smooth out any cracks and re-shape any crown that has been lost when the pavement deteriorated. A 1-inch interlayer will be placed over the leveling course in order to prevent any reflective cracking from the existing pavement impacting the proposed HMA surface course. A 1 1/2 -inch surface course will be placed over the interlayer. The surface course of HMA will provide added strength to the pavement and act as the driving surface for vehicle traffic. At existing driveway locations, the HMA will be feathered to meet existing pavement slopes.

Adding the overlay to the existing pavement will reduce the existing 6-inch curb to 4-inches. The life expectancy for the proposed design is approximately 20 years. If the City desires, there is an option to crack and seat the existing pavement prior to the HMA overlay which will increase the project cost by approximately \$80,000 and add 5 years to the expected design life of the pavement.

IMPROVEMENT DETAILS

3rd St NE IMPROVEMENTS (12TH AVE NE TO 13TH AVE NE):

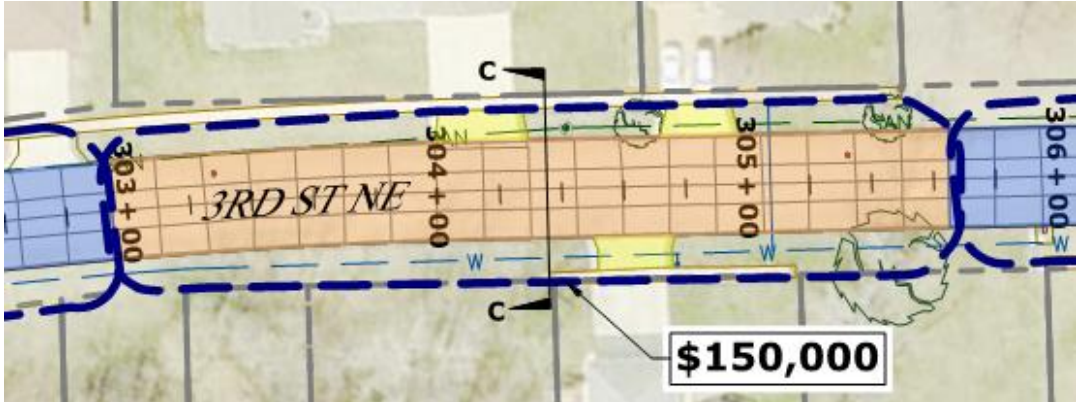


Figure 2 – Proposed 3rd St NE Full Replacement Area

While analyzing this portion of roadway, FOX initially considered panel replacement of the shifted panels that created drainage issues and ponding. It was determined that the number of panels required to be replaced to get proper drainage was too high to warrant panel replacement, and would be more cost effective as a total replacement. We acknowledge that there is concern over the need for replacement in this area. In reviewing the profile of the existing curbs, we found multiple areas of ponding. This portion of the project is estimated conservatively as a total removal and replacement area. Once in the Final Design stage, we can look at additional cost saving measures for this area. Constructing this area in HMA is also an option if the City desires a cohesive look throughout the subdivision.

12th Ave NE IMPROVEMENTS (2ND ST NE to 3RD ST NE):



Figure 3 – Proposed 12th Ave NE Full Removal Area

The City has expressed the desire for a full pavement removal of the north portion of 12th Ave NE. The removed pavement area will be replaced as greenspace. Storm sewer is proposed in order to more effectively drain the water conveyed north to the storm sewer outlet. Rock is proposed in the transition areas between the proposed greenspace and pavement. There will be ROAD CLOSED signs placed at each end of the greenspace. The City will need to determine who is responsible for the maintenance of the greenspace area.

13th Ave NE (2ND ST NE to 3RD ST NE)

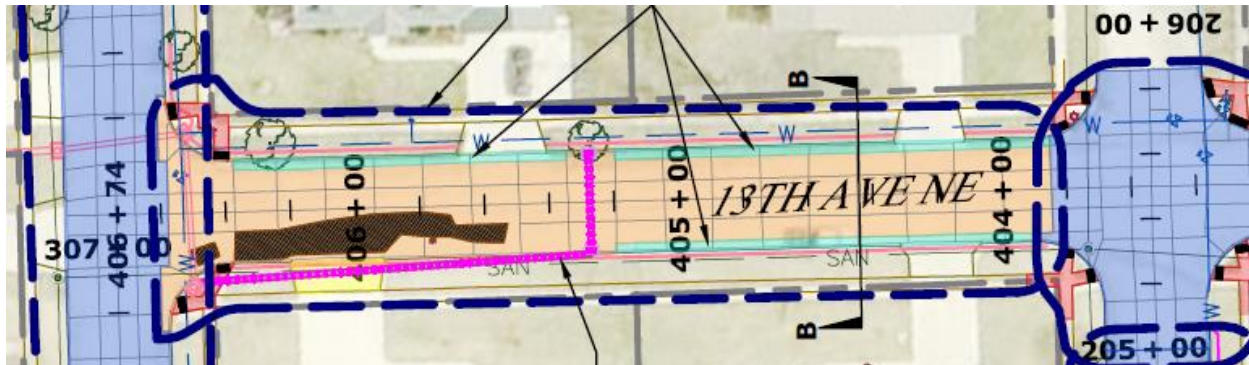


Figure 4 – Proposed 13th NE Ave Full Replacement Area

This area of 13th Ave NE has been previously patched. Water has eroded the subgrade and left a hollow space under the existing pavement. The void space will be filled with rock prior to placing pavement. The proposed improvement in this area salvages the existing curb where possible. Minimal storm sewer is proposed in this area due to the large amount of the existing drainage area not being collected in the storm sewer system. Collecting the stormwater in this area will convey water away from the pavement thereby reducing the chances of water undermining the proposed pavement. Constructing this area in HMA is also an option if the City desires a cohesive look throughout the subdivision.

Please contact us if you have any questions or comments regarding this project.

FOX Engineering Associates, Inc.

John Gade, P.E.

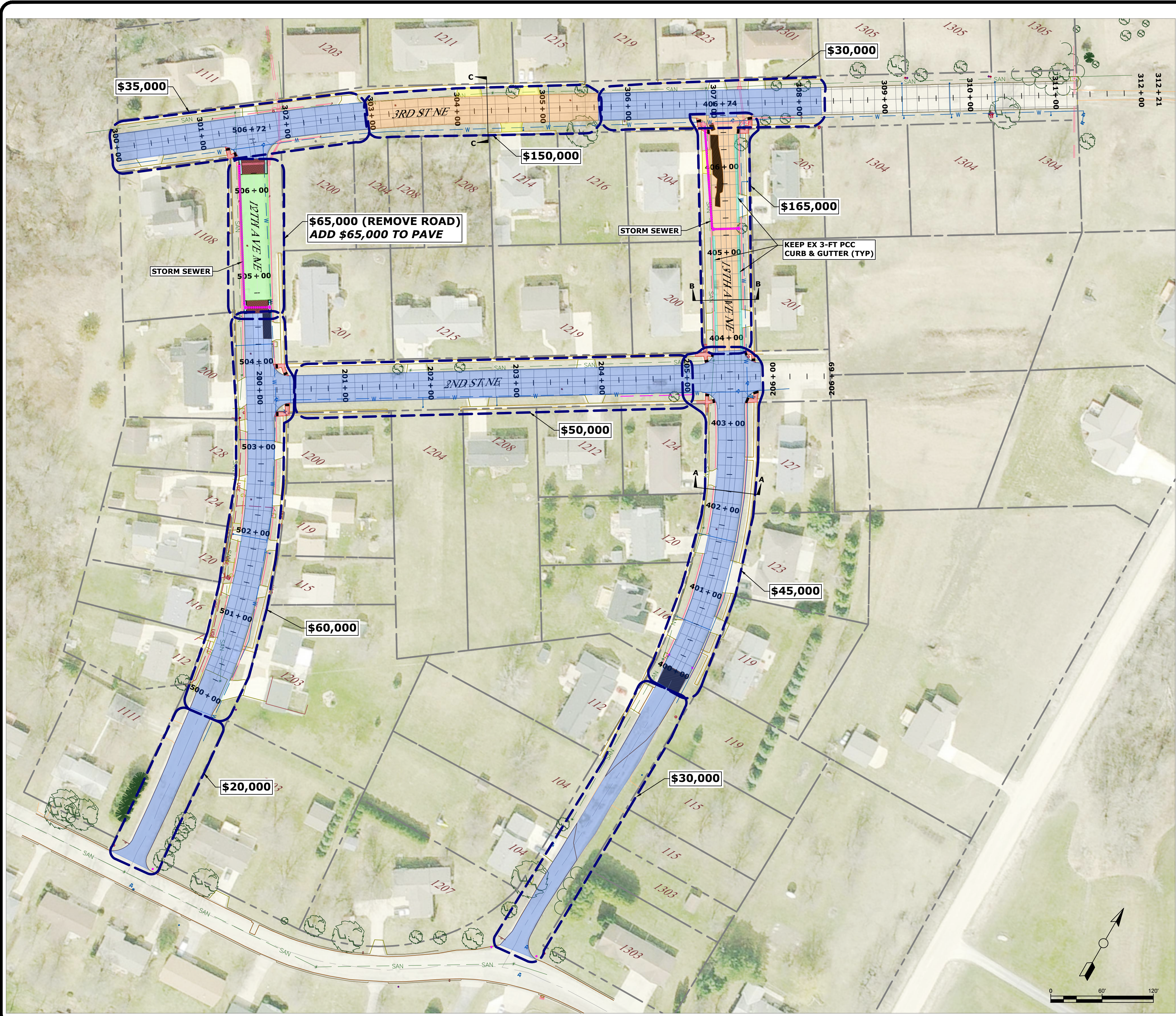
Attachments:

Exhibit A – Wings East Pavement Improvements

Figure B – Assessment District

Preliminary Assessment Schedule

Preliminary Design Opinion of Probable Construction Cost

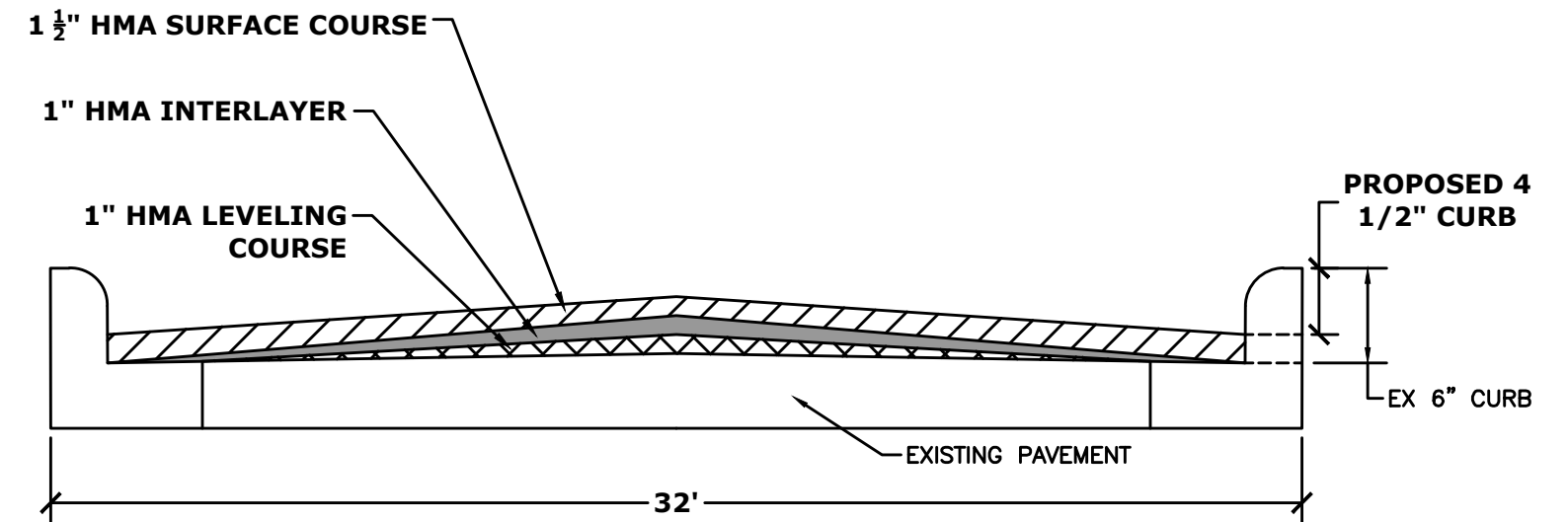


\$650,000 TOTAL PROJECT COST

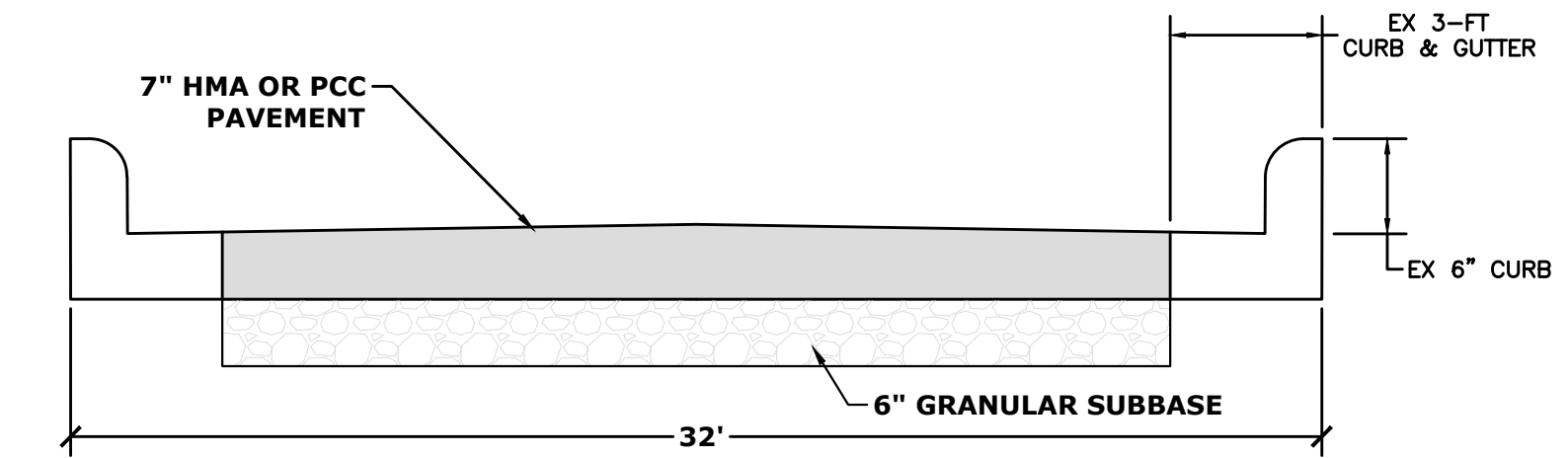
NOTE:
CRACK AND SEAT OR MILLING PROPOSED HMA
OVERLAY AREA ADDS \$80,000

LEGEND

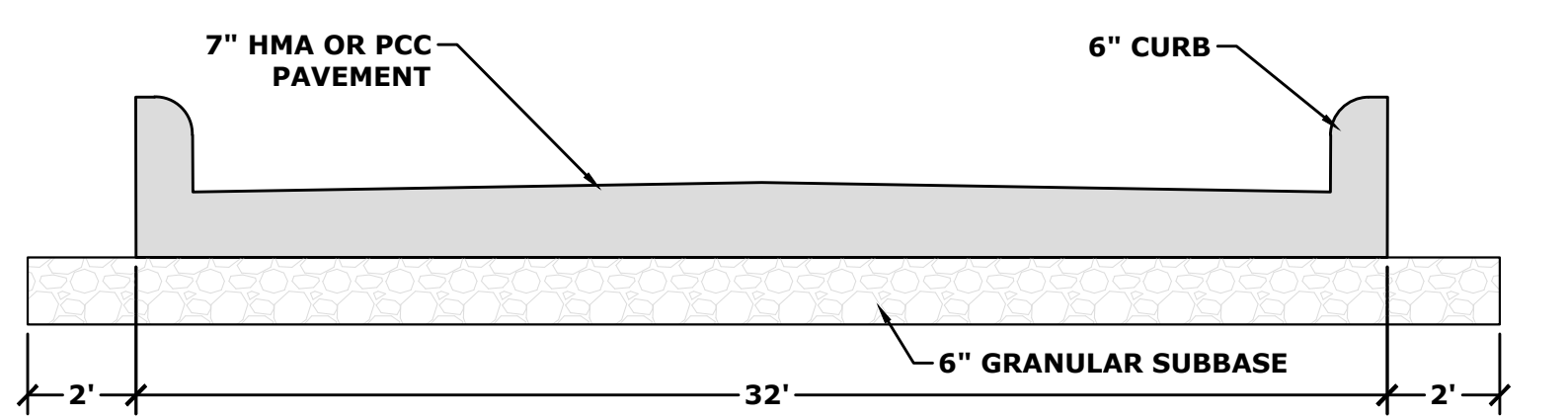
- GREENSPACE AREA
- DRIVEWAY REPLACEMENT
- SIDEWALK REPLACEMENT
- FULL WIDTH PCC REPLACEMENT
- P.C.C. CURB EXISTING 3' WIDE
- GRAVEL SURFACING
- HMA OVERLAY
- STORM PIPE
- SUBDRAIN



HMA OVERLAY-SECTION A-A



FULL DEPTH PAVEMENT REPLACEMENT-SECTION B-B



FULL DEPTH PAVEMENT REPLACEMENT-SECTION C-C

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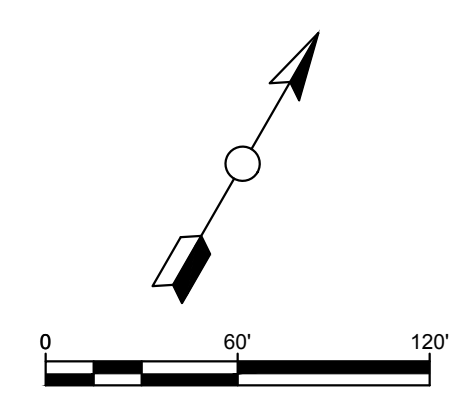


ESTIMATE OF TOTAL PROJECT COST

\$650,000

LEGEND

- ASSESSMENT AREA
- 50% GENERAL BENEFIT
- 50% SPECIAL BENEFIT
- STORM PIPE
- SUBDRAIN



B	LAST UPDATE:	PROJECT NO.		OELWEIN, IA	DATE	REVISION	CHECKED BY:	ASSESSMENT DISTRICT WINGS EAST PAVEMENT IMPROVEMENTS	PROJECT NO. 1022-18A	LAST UPDATE:	B
	2/19/20	1022-18A			FOX Engineering Associates, Inc. 414 South 17th Street, Suite 107 Ames, Iowa 50010 Phone: (515) 233-7333 FAX: (515) 233-7333						

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ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

Wings East Subdivision

HMA Overlay all streets including sealcoat and 12th Ave NE (remove road), 3rd St NE & 13th Ave NE (remove/replace road)

City of Oelwein, Iowa

Last Update 2/19/2020

FOX PN: 1022-18A



				ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS	
ITEM NO.	BID ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
DIVISION 1 - GENERAL					
1.01	MOBILIZATION	LS	1	\$25,000.00	\$25,000.00
1.02	TRAFFIC CONTROL & STAGING	LS	1	\$5,000.00	\$5,000.00
1.03	REMOVE/REINSTALL SIGNS	LS	1	\$2,000.00	\$2,000.00
1.04	TEMPORARY MAILBOX	LS	1	\$1,000.00	\$1,000.00
DIVISION 2 - EARTHWORK					
2.01	TOPSOIL, STRIP, SALVAGE, SPREAD	CY	80	\$20.00	\$1,600.00
2.02	TOPSOIL, FURNISH AND SPREAD	CY	145	\$26.00	\$3,770.00
2.03	CLASS 10 - EXCAVATION FOR ROADWAY	CY	425	\$20.00	\$8,500.00
2.04	MODIFIED SUBBASE, 6-INCH	SY	1,955	\$8.50	\$16,617.50
2.05	BELOW GRADE EXCAVATION (CORE OUT FOR ROADWAY)	TON	150	\$25.00	\$3,750.00
2.06	SUBGRADE TREATMENT (CONTINGENCY)	SY	100	\$20.00	\$2,000.00
2.07	EARTHWORK COMPACTION TESTING	LS	1	\$2,500.00	\$2,500.00
DIVISION 3 - TRENCH AND TRENCHLESS CONSTRUCTION (NOT USED)					
DIVISION 4 - SEWERS AND DRAINS					
4.01	CONNECT TO EXISTING STRUCTURE	EA	3	\$1,500.00	\$4,500.00
4.02	STORM INTAKE, SW-501	EA	4	\$3,500.00	\$14,000.00
4.03	STORM SEWER, TRENCHED, 15-INCH, AS SUBDRAIN	LF	355	\$70.00	\$24,850.00
4.04	SUBDRAIN, 4-INCH	LF	100	\$20.00	\$2,000.00
DIVISION 5 - WATER MAIN AND APPURTENANCES					
5.01	ADJUSTMENT OF FIXTURES	EA	5	\$350.00	\$1,750.00
DIVISION 6 - STRUCTURES FOR SANITARY AND STORM SEWERS					
6.01	MANHOLE ADJUSTMENT	EA	2	\$1,000.00	\$2,000.00
DIVISION 7 - PAVEMENT AND APPURTENANCES					
7.01	PAVEMENT REMOVAL AND DISPOSITION	SY	2,733	\$10.00	\$27,326.67
7.02	MILLING, PCC PAVEMENT	SY	83	\$40.00	\$3,306.67
7.03	HMA LEVELING COURSE, 1/2" MIX, 1" DEPTH	SY	8,355	\$5.25	\$43,863.75
7.04	HMA INTERLAYER, 3/8" MIX, 1" DEPTH	SY	8,355	\$7.00	\$58,485.00
7.05	HMA OVERLAY (ST), 1/2" MIX, 1-1/2" DEPTH	SY	8,355	\$7.50	\$62,662.50
7.06	PAVING, HANDWORK, 7-INCH HMA OR PCC	SY	1,857	\$65.00	\$120,683.33
7.07	GRANULAR SURFACING, CLASS A	TON	44	\$40.00	\$1,760.00
7.08	DRIVEWAY, PAVED, PCC, 6-INCH	SY	114	\$80.00	\$9,155.56
7.09	PAVING, SIDEWALK	SY	140	\$65.00	\$9,100.00
7.10	DETECTABLE WARNINGS	SF	180	\$65.00	\$11,700.00
7.11	SAW CUTS	LF	734	\$5.00	\$3,670.00
7.12	PAVEMENT SAMPLES AND TESTING	LS	1	\$2,500.00	\$2,500.00
DIVISION 8 - TRAFFIC SIGNALS (NOT USED)					
DIVISION 9 - SITE WORK AND LANDSCAPING					
9.01	SEEDING, FERTILIZING, AND MULCHING - TYPE 1	AC	0.5	\$4,000.00	\$2,000.00
9.02	FILTER SOCK INSTALL & REMOVAL	LF	200	\$5.00	\$1,000.00
Construction Subtotal					\$478,050.97
3% Contingency					\$14,341.53
Assessments & Meetings					\$17,000.00
Engineering, Bidding, Admin, Staking, & Observation					\$140,000.00
Total Project Cost					\$650,000.00