



**PHOTOS:**



Outlet of the 42" CMP



Channelizer on the east side of the entrance denoting the sinkhole



42" CMP - Looking East



42" CMP - Looking West

**RECOMMENDATIONS:**

The culvert should be replaced based upon the structural condition of the CMP, particularly the bottom. This CMP was analyzed for slip lining and did not meet the criteria.

It is recommended that a single 54 inch culvert as the replacement under the side road. This would be approximately 88 feet in length.

The intent would be to construct this project via stage construction. If needed, the quarry has a back entrance they can utilize therefore the suggestion is to replace this culvert by a cut and cover method and patch back the pavement.

The remainder of the culvert approximately 100 feet down towards the river will be removed and regraded via a rock flume with Class E revetment.

The county requested that the roadway patch be placed back as a concrete patch.

**Estimate:**

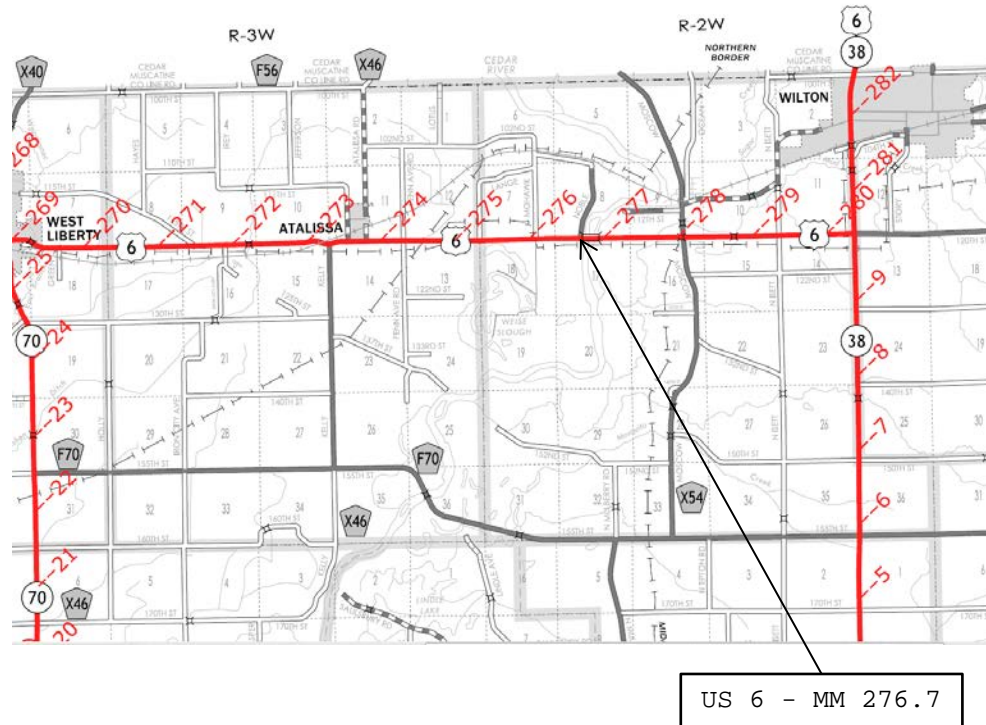
Class 10 Excav.	51.00	CY	\$ 45.00	\$ 2,295.00
Clearing and Grubbing	0.25	ACRE	\$ 10,000.00	\$ 2,500.00
Flooded backfill	32.00	CY	\$ 77.00	\$ 2,464.00
flowable mortar	11.00	CY	\$ 260.00	\$ 2,860.00
Embankment in Place	27.00	CY	\$ 71.00	\$ 1,917.00
CULV, CONC RDWY PIPE, 54"	88.00	FT	\$ 250.00	\$ 22,000.00
APRON, CONC, 54"	2.00	EA	\$ 3,250.00	\$ 6,500.00
Class E Revetment	242.00	Ton	\$ 50.00	\$ 12,100.00
Engineering Fabric	128.00	SY	\$ 5.00	\$ 640.00
Gran Shld Type B	4.00	Ton	\$ 40.00	\$ 160.00
Gran Surfacing	6.00	Ton	\$ 65.00	\$ 390.00
PCC patch, by count	1.00	EA	\$ 1,000.00	\$ 1,000.00
PCC patch, by area	134.00	SY	\$ 150.00	\$ 20,100.00
Subbase patch	134.00	SY	\$ 27.00	\$ 3,618.00
			TC 20%	\$ 15,708.80
			Cont & Mob 25%	\$ 19,636.00
			<b>Total =</b>	<b>\$ 113,888.80</b>

ROW is not anticipated but should be verified with the design.

**FUNDS PROGRAMMED:**

It has been identified by the District 5 office for construction in FY 2022. A schedule of events for plan development will be determined following approval of the Project Concept.

**LOCATION MAP:**



cc:

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