

Understanding

Irishtown Bend

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Cleveland—City of industry

And Irishtown Bend was no exception. First a home for working class Irish immigrants who were not welcome in the more genteel neighborhoods of Cleveland, as they were considered to be “too boisterous.” They built sturdy homes (Not shacks as some historians erroneously claim) and worked hard to help build Cleveland’s industry. As they prospered, the Irish moved out to better locations, and more industries moved in. Over time, the homes were replaced by businesses.

From 1846 until the sixties there was a rail line adjacent to Riverbed Street that connected to the docks on the Old Riverbed and also served coal transfer locations on the West bank of the Cuyahoga river.

All during the time that Irishtown Bend was used for residences, businesses, and railroads, little thought was given to the basic geology of the site, if in fact enough was known about its geology, and how it might influence the uses of the site.

In the past, Irishtown Bend has been treated as though it would be stable forever. Roads and rail lines were built, foundations for homes and businesses were laid, a 60 inch sewer line was installed under Riverbed Street, and gas and water lines were buried. Little or no thought was given to the fact that the whole area is very slowly but surely sliding into the Cuyahoga River.

There were trestles where hopper cars unloaded coal into two bunkers for transfer to ships (See maps). Rail traffic became so great that at one time there were eight tracks, including the two coal trestles, curving around the Bend between Riverbed Street and the river’s edge.



Irishtown Bend in 1898.
Note the two coal dumper locations

Erie Railroad through Irishtown Bend, 1904.
The coal trestles are clearly seen, along with the two dumper locations.



Building the trestles for coal unloading

The base for the trestles was land that had been graded flat. Wooden cribs filled with stone were erected to support the trestles, except for the two locations for coal to drop through the trestle into the bunkers. Cribs, rather than posts or pilings, were probably used to spread the load out over the soft soil of the Bend.

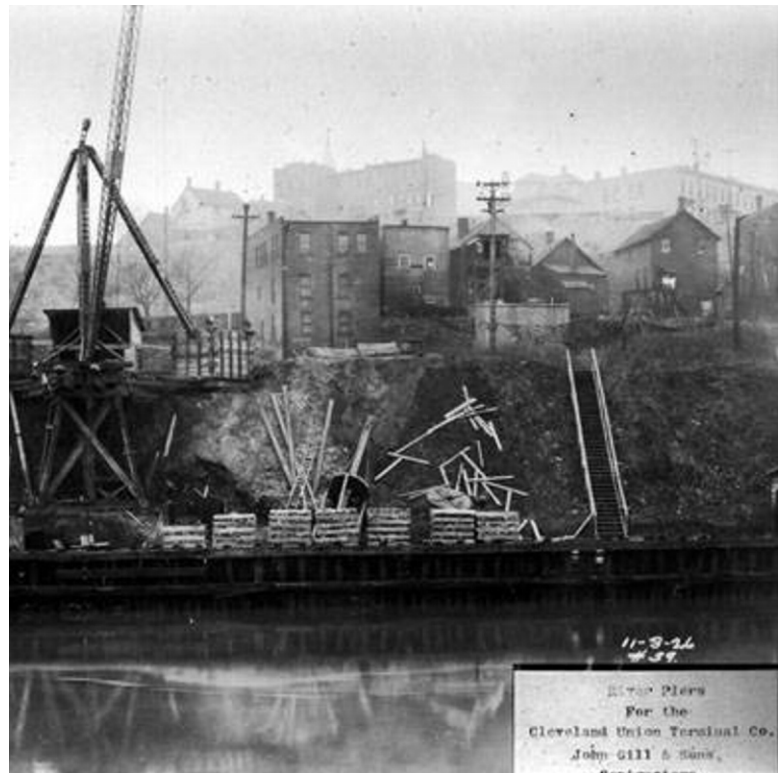
Over time, the coal trestles were no longer used, and the trestles were torn down, but the cribs were left behind and are still visible today.

In 1912, the railroad erected a Wellman car dumper just south of the Veterans Memorial bridge. That dumper was torn down some time before 1951.

The date of “a view of the Bend” photograph could not be found, but in the picture is the Veterans Memorial Bridge, finished in 1918, and the old double swing bridge on Columbus Road. That bridge was replaced by a lift bridge built by the WPA in 1940. Also the Wellman car dumper is there (The date of its removal is unknown) Therefore the date of this picture is some time between 1918 and 1940.

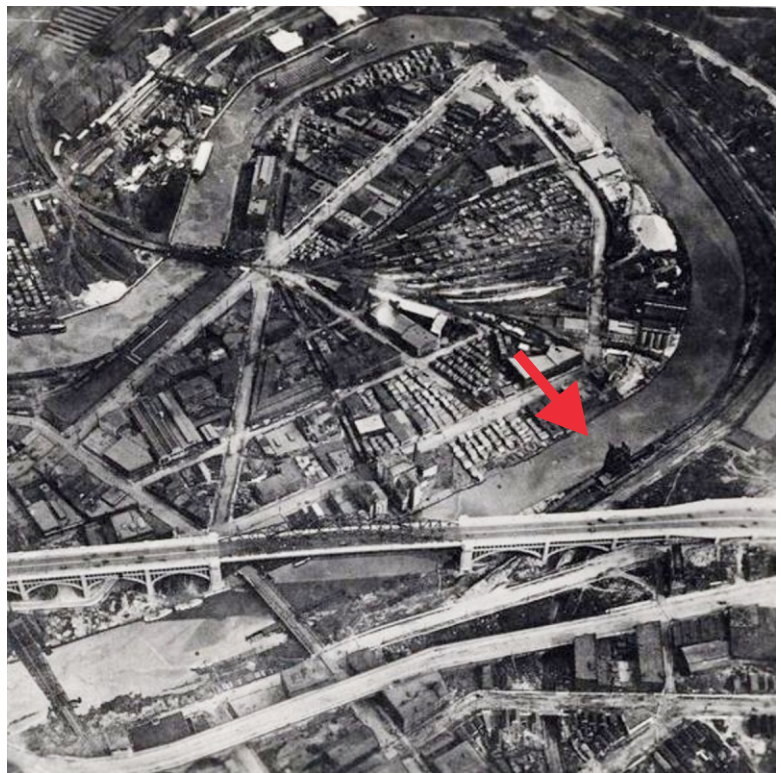
This picture also shows the industries on the east side of the river, between Merwin street and the river bank, which were later removed so that the channel could be widened.

In early 1940, sheet piling had begun to be installed along the west bank of the Cuyahoga River, but the work was interrupted by World War II.

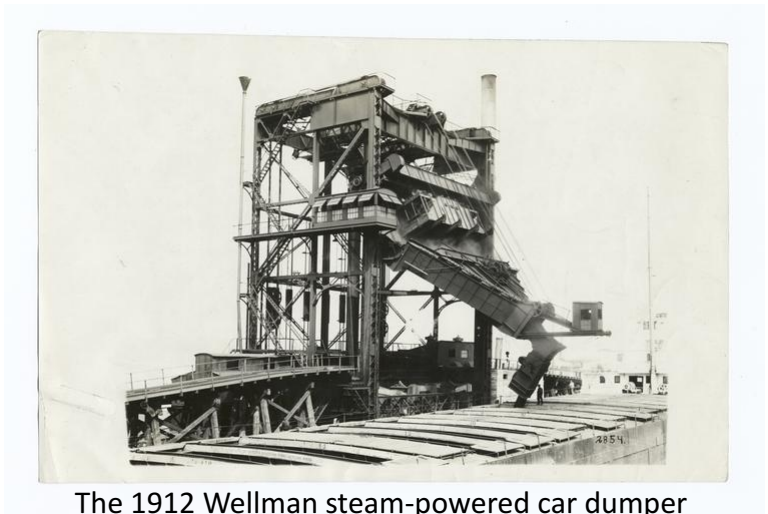


Building the supports for the coal trestles—wooden cribs filled with stones.

A view of the Bend some time between 1918 and 1940. The Wellman car dumper is just south of Veterans Memorial bridge.

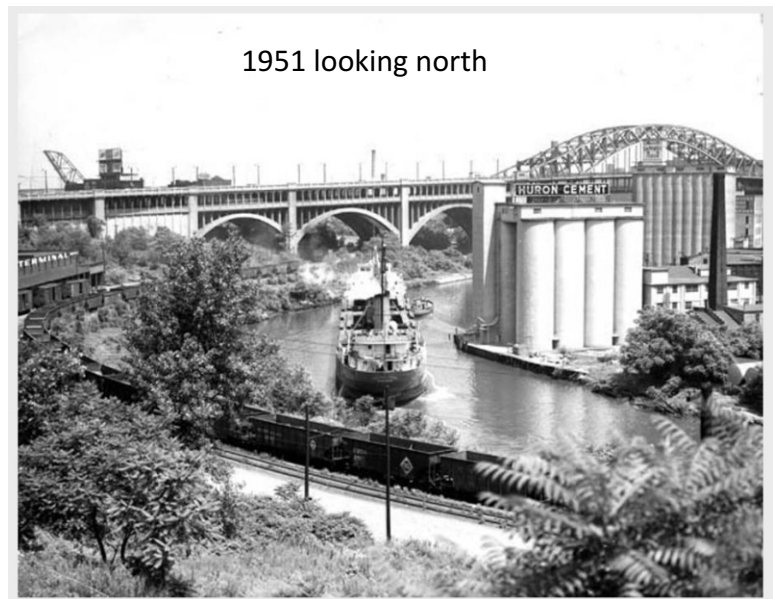


The Wellman steam-powered car dumper was invented by George Hulett, who also invented the Hulett iron-ore unloaders. As were the Hulett unloaders, the dumper was built by the Wellman-Seaver-Morgan Company of Cleveland. It lifted the rail car high in the tower and flipped it over, dumping its contents into a funnel-shaped chute that loaded one hatch of a ship. Notice the operator's cab on the end of the chute.



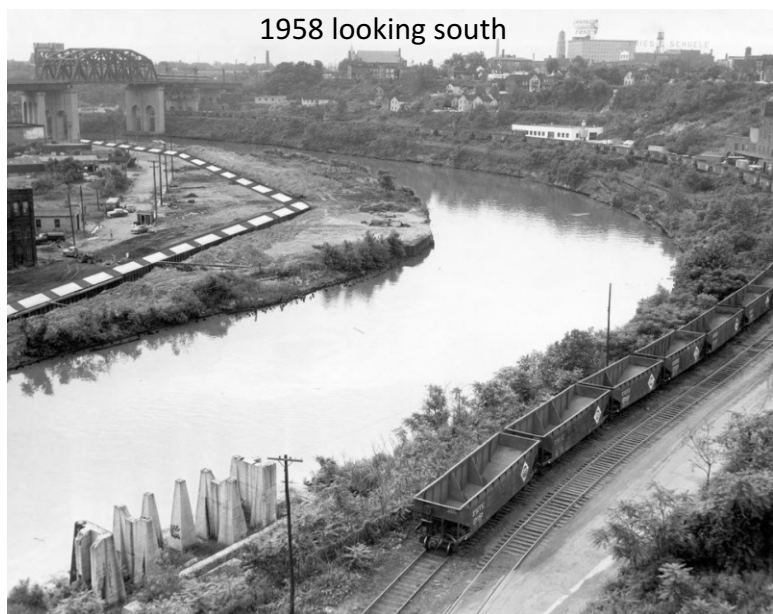
The 1912 Wellman steam-powered car dumper

In 1951, the Huron Cement Company still occupied the east bank. It was torn down a few years later to make way for widening of the channel.



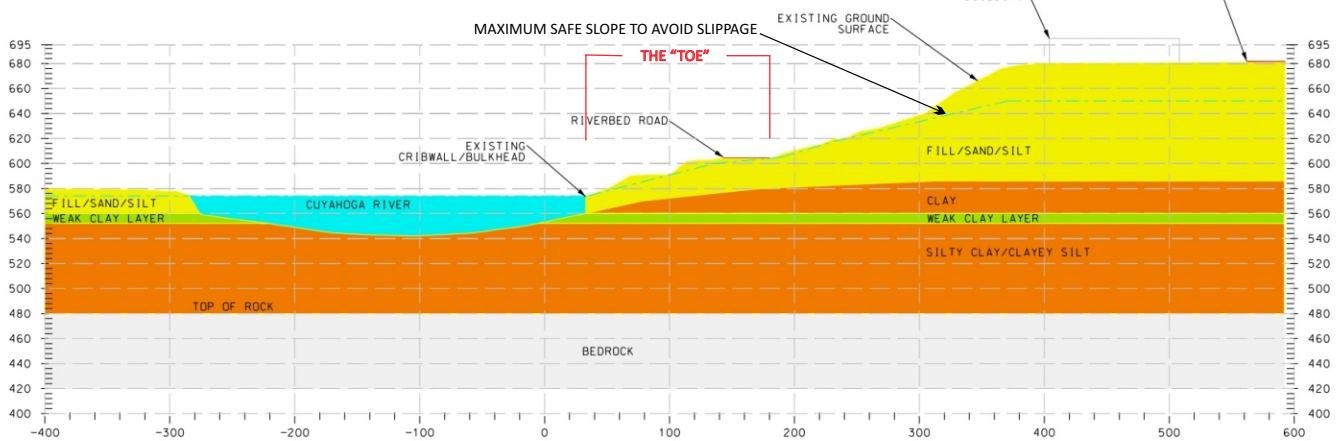
In 1958 we see the preparations for the widening of the channel. The Huron Cement silos are gone, and other buildings between Merwin Street and the river had been razed. Next to the dotted line, sheet piling has been driven to delineate the new east bank of the river.

You can see a few houses still standing on Terrace Street (which was subsequently torn up), although reportedly they were vacant and soon to be razed. A few industrial buildings are there as well. Some were torn down between 1955 and 1958. The long, white building was the home of Warwick Products, a fabricator of specialty equipment cases and other high quality laminated wood products. Later, Warwick and the other businesses were forced to vacate, as the hillside was found to be slowly sliding toward the river.



Two railroad tracks were still in use in 1958, but coal trestles are gone. The concrete piers next to the river had supported the Wellman car dumper.

CROSS-SECTION OF EXISTING CONDITIONS (From the 2009 USACE report)



What can be done?

It has already been decided that there will never again be houses or industrial activity on Irishtown Bend. Several proposals have been made for turning it into a park. However all are contingent upon stabilizing the hillside.

In 2009, the U. S. Army Corps of Engineers prepared a report: “Conceptual Designs and Cost Estimates for Bulkhead Repair and Slope Stability Improvements in the Vicinity of Riverbed Street.” www.citizensvision.org/cvscranton/Cuyahoga-2009-01.pdf outlining some alternatives for this massive project.

Much needs to be done before Irishtown Bend can be turned into a park and recreation area. There must be a sturdy bulkhead between the toe of the hillside and the river. Material excavated from the proposed shipping channel cut through Scranton Peninsula could be used for fill, especially needed in the toe, that area between the river bank and Riverbed Road.

Slippage has caused fissures to open up in Riverbed Street, thus requiring its closure. This picture shows the location of the worst slippage. To restore Riverbed Street to safe use, even for such light usage as the Towpath Trail, will require a large amount of fill—fill that will be plentiful from excavation of the Scranton shipping channel.

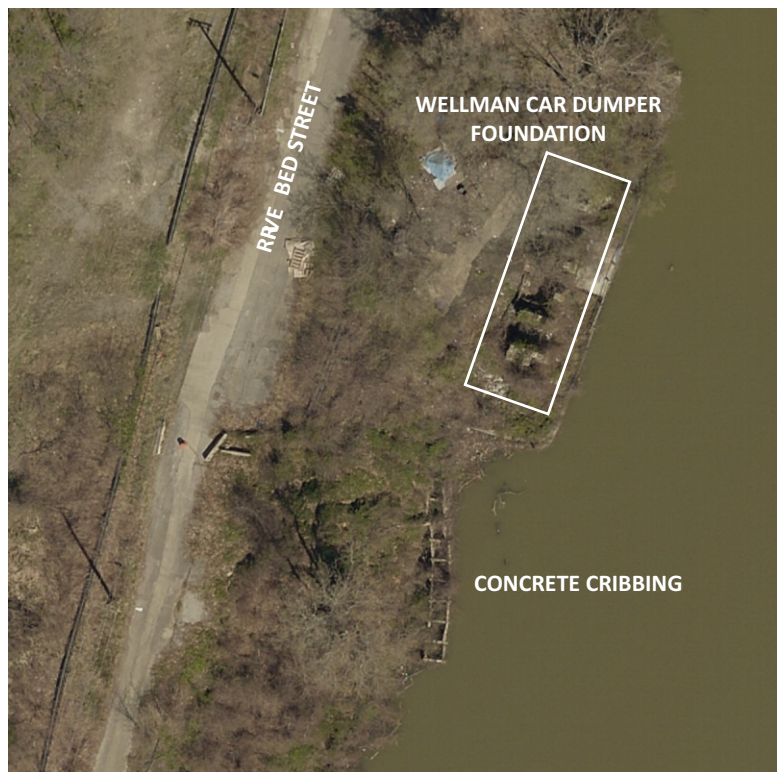


Riverbed St., Downstream Failure.
Source: USACE Field Inspection, 20 Aug 2008



In 2008, the U. S. Army Corps photographed the west bank problems. This picture shows sagging concrete cribbing that was a failed attempt to keep back slippage. Behind it is the sagging wooden cribbing that had supported the coal trestles, and was abandoned when the coal trestles were removed. The concrete cribbing has been not only sagging, but some of the cribbing has been sinking into the river.

From Columbus Road to the Veterans Memorial Bridge, the west river bank bulkheading has deteriorated to the point of almost completely disappearing.



Cuyahoga County GIS image Spring 2016

Irishtown Bend Park designers have incorporated the foundation piers of the Wellman car dumper into their plans as an historical artifact, even though they didn't know much about it. Now that we know more of the history of the car dumper itself and how it was used, an educational interpretive display can be incorporated into the historic site, to make it far more meaningful than concrete piers alone.

In the past, whenever someone wanted to level out the top of Irishtown Bend, they simply dumped fill over the edge of the hillside. This dumping accelerated the slippage problem, making the hillside more unstable than it already was.

At the “toe” of the hillside, between Riverbed Street and the river’s edge, soil has been slipping. Parts of Riverbed Street have broken off and are sliding toward the river. Feeble attempts to stop the slippage have been futile. Concrete cribbing for stability has sagged, and some of that cribbing is now under water.

The toe of the hillside must be stabilized. New bulkheading along Irishtown Bend is a necessity. Bulkheading would most likely be sheet or box piling with tiebacks perhaps to bedrock, with fill behind the piling to stop the slippage.

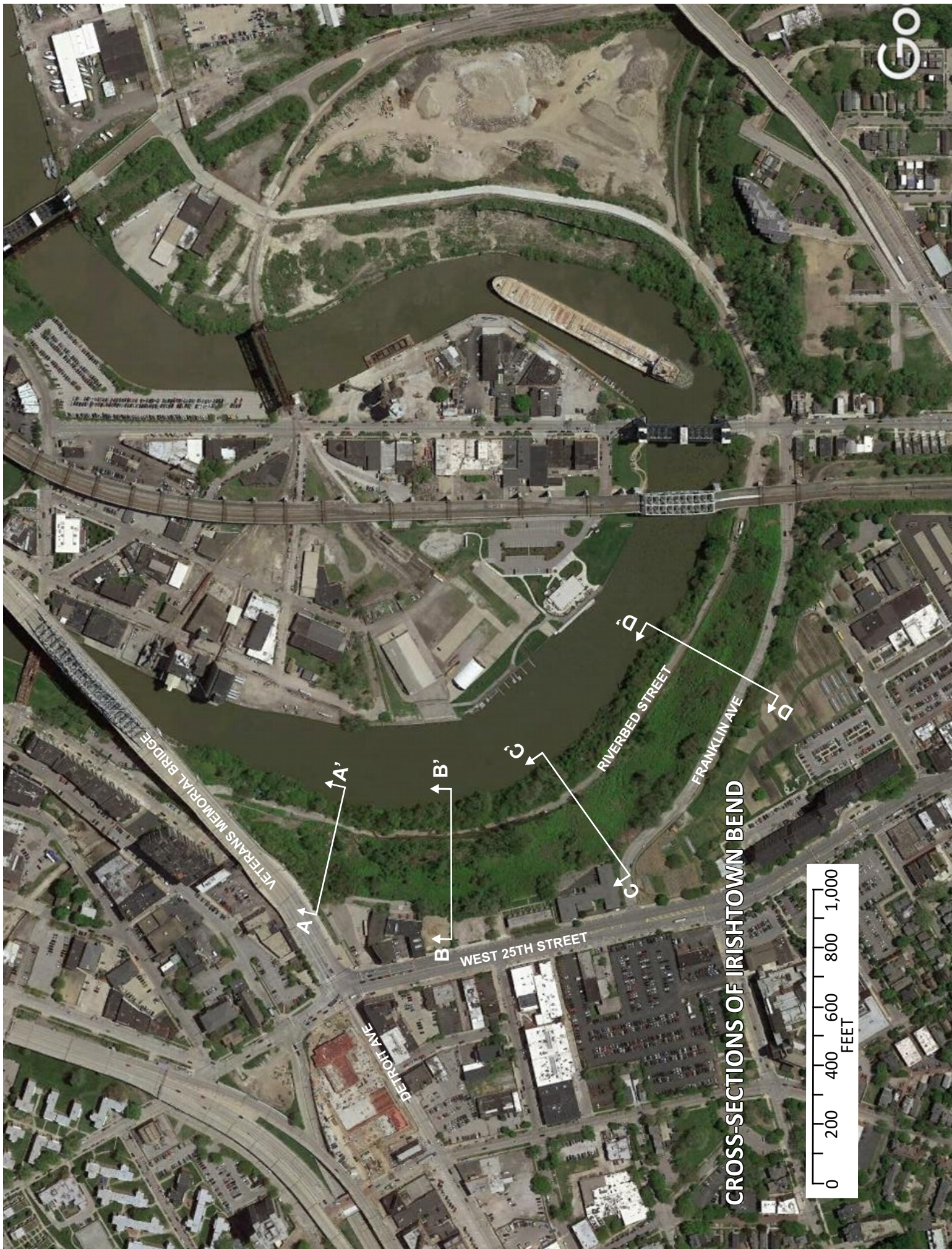
The Army Corps of Engineers has determined a maximum safe slope for stability, the green dotted line. To honor that slope without destroying West 25th Street, the hill must be bulkheaded in steps. Proper bulkheading will allow development of property on the East side of West 25th Street. There is a potential for development of Irishtown bend as a public park, perhaps with zigzag terraces as a safe walking path from top to bottom. However these terraces must be bulkheaded to honor the safe maximum slope for the soil—which is not well-consolidated, but a mixture of silt, sand, and clay. (See the Army Corps report for details.)

On the following pages are a series of sections of Irishtown bend, with possible bulkheading and fill needed to maintain stability of the soil.

Conclusion

The purpose of this report is not to advocate for specific remedies, but to provide a better understanding of Irishtown Bend, its history, its geology, its past uses and abuses, and some of the characteristics that must be respected for any solution to be viable. Whatever solution is implemented must work with, not in defiance of, the natural conditions of the hillside.

Recommended reading: *Conceptual Designs and Cost Estimates for Bulkhead Repair and Slope Stability Improvements in the Vicinity of Riverbed Street* by US Army Corps of Engineers. <http://www.citizensvision.org/cvscranton/Cuyahoga-2009-01.pdf>



VETERANS MEMORIAL BRIDGE

A A'

B B'

WEST 25TH STREET

DETROIT AVE

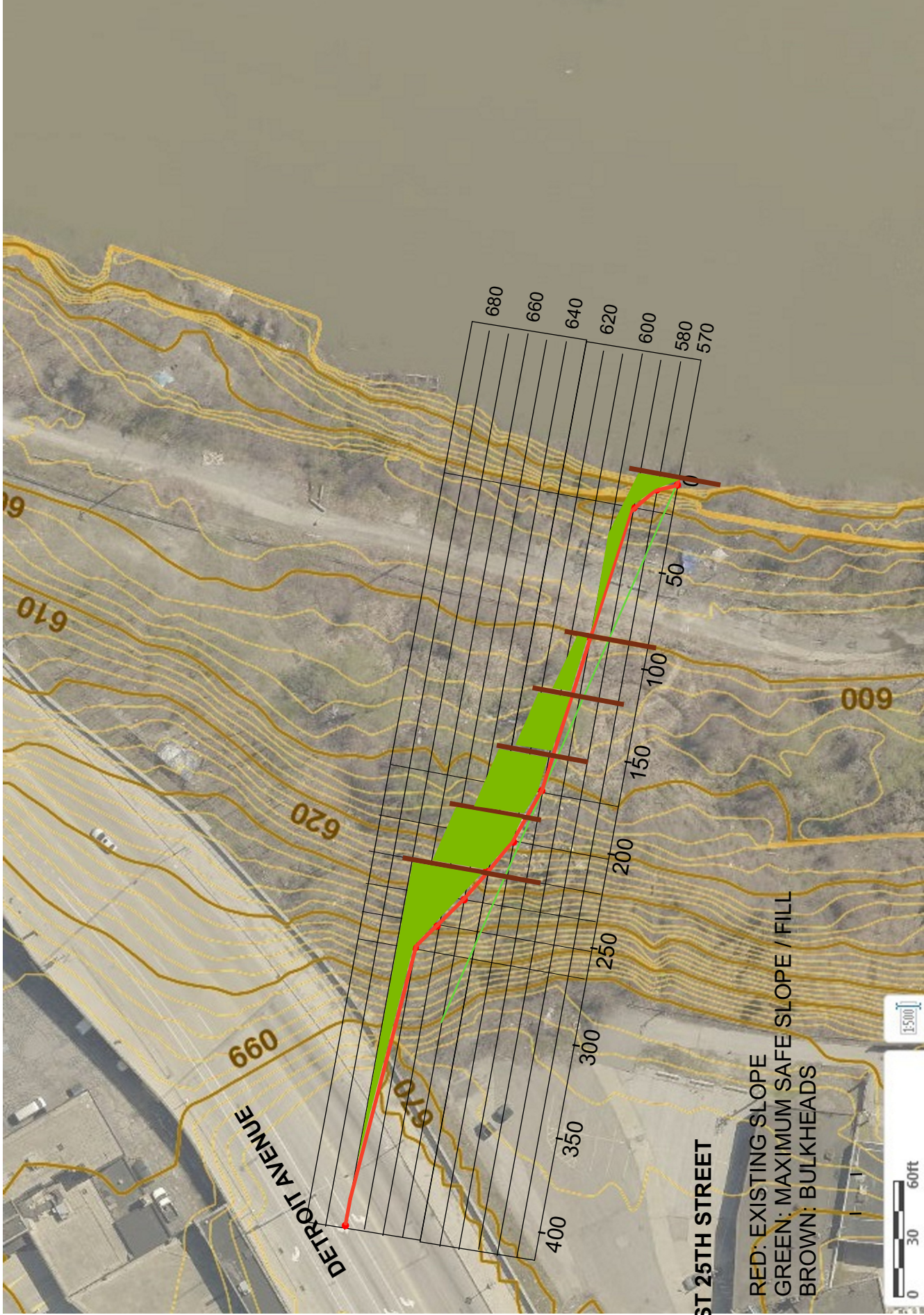
C C'

RIVERBED STREET

FRANKLIN AVE

CROSS-SECTIONS OF IRISHTOWN BEND

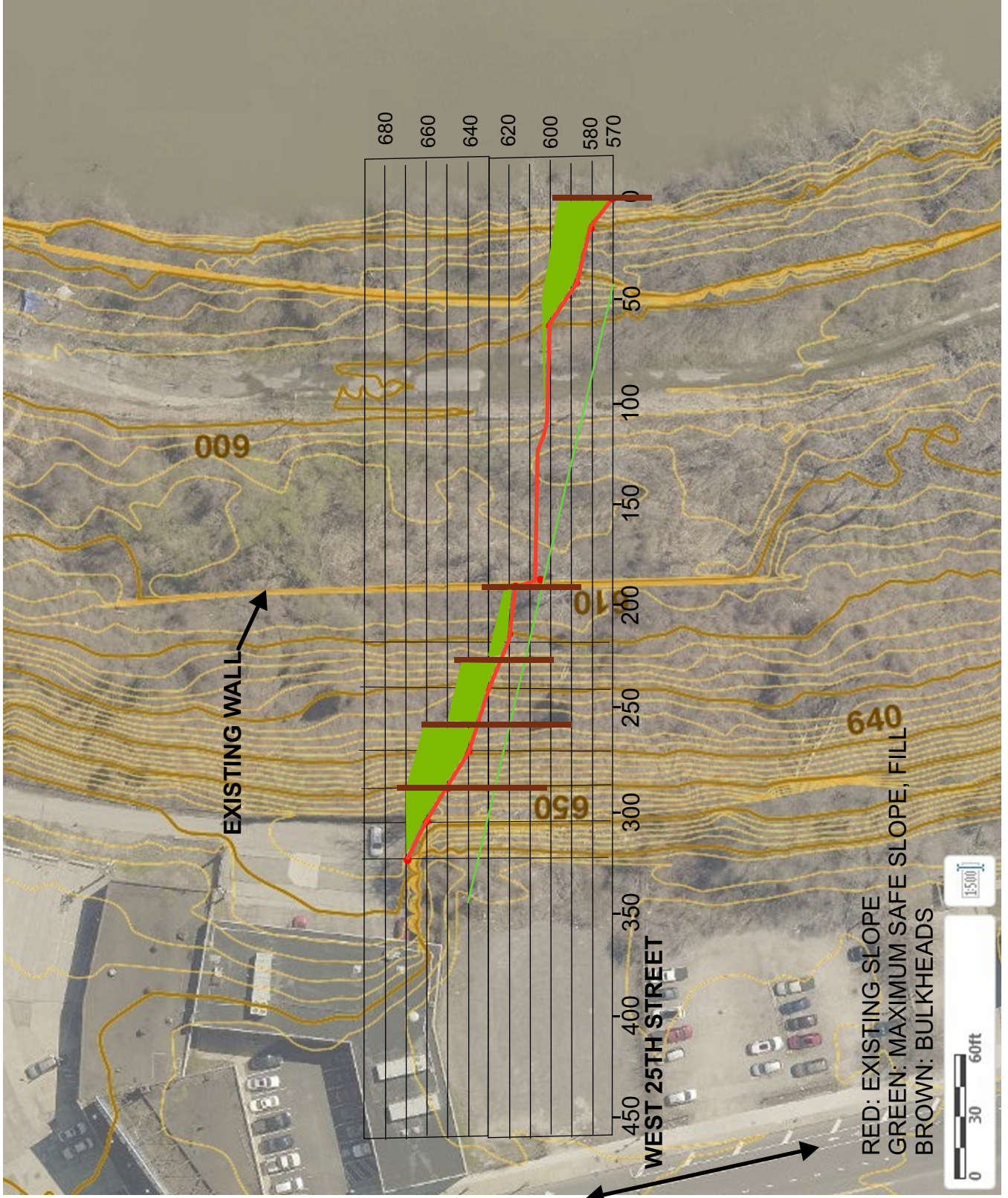




WEST 25TH STREET

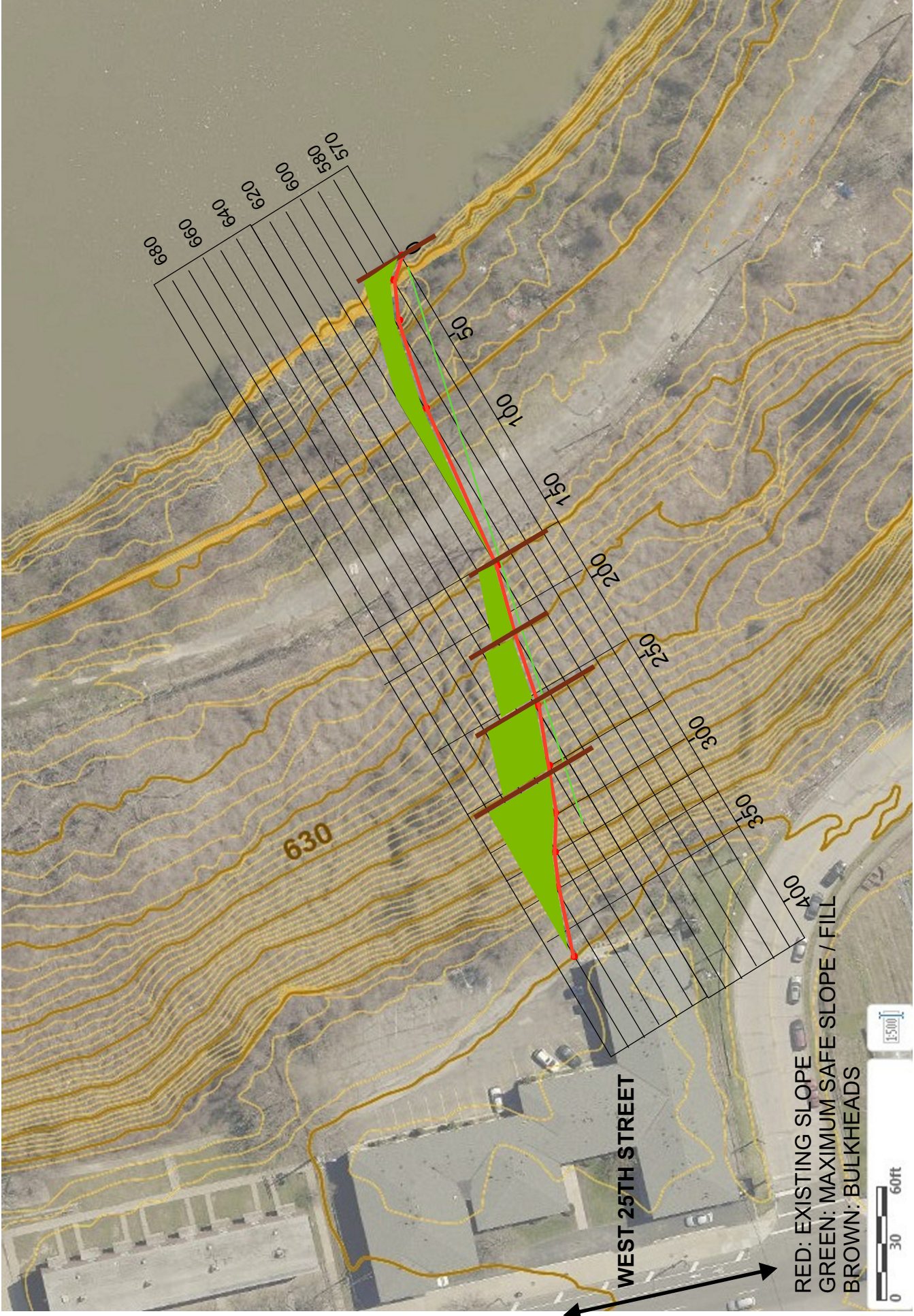
RED: EXISTING SLOPE
 GREEN: MAXIMUM SAFE SLOPE / FILL
 BROWN: BULKHEADS

SECTION A - A'



RED: EXISTING SLOPE
 GREEN: MAXIMUM SAFE SLOPE, FILL
 BROWN: BULKHEADS

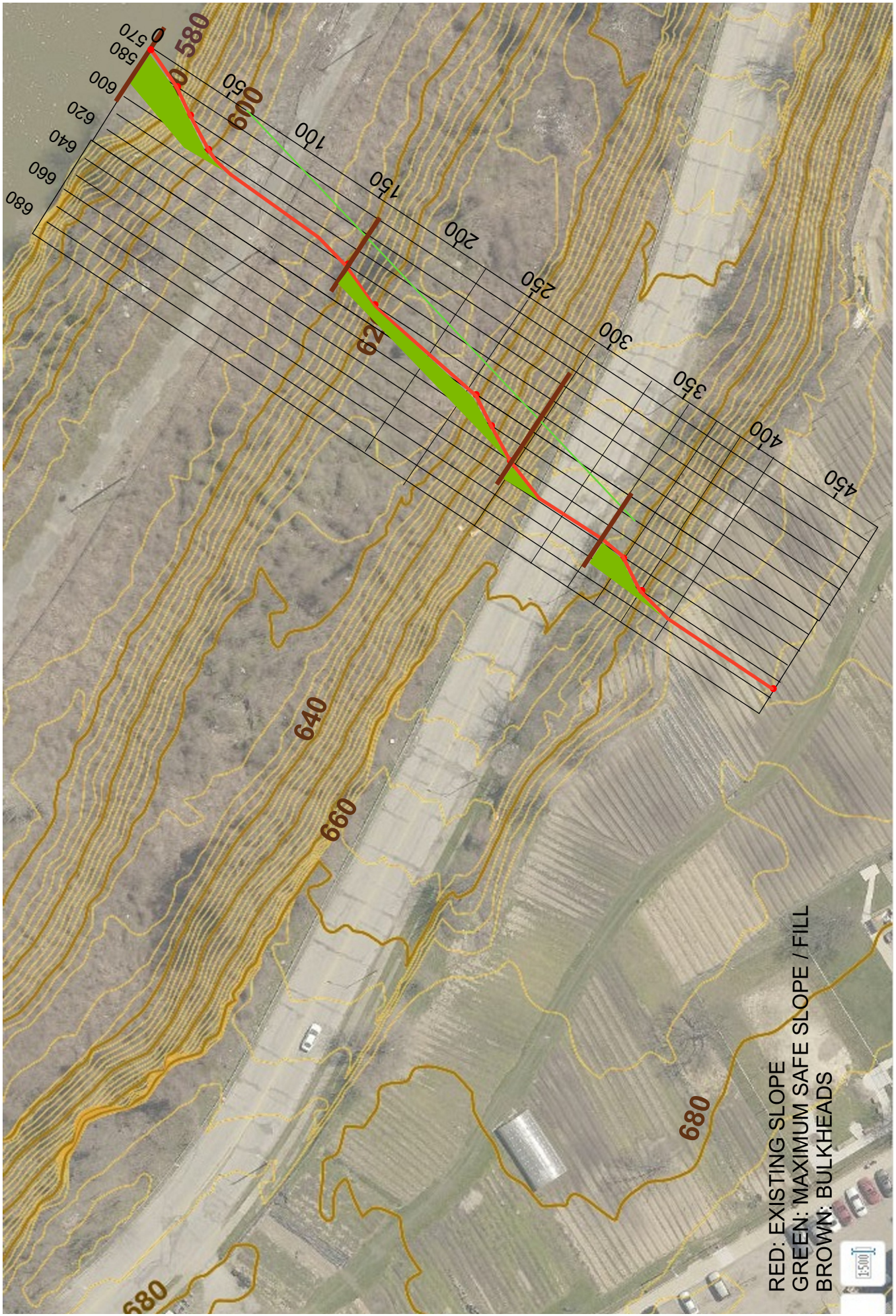
SECTION B - B'



RED: EXISTING SLOPE
 GREEN: MAXIMUM SAFE SLOPE / FILL
 BROWN: BULKHEADS

WEST 25TH STREET

SECTION C - C'



SECTION D - D'

RED: EXISTING SLOPE
 GREEN: MAXIMUM SAFE SLOPE / FILL
 BROWN: BULKHEADS

1:500