

**From:** Beggs, Tauren R - DNR  
**Sent:** Friday, May 21, 2021 7:51 AM  
**To:** Byers, Harris  
**Subject:** RE: Soil from 8th and Maritime in Manitowoc

Hi Harris,

This would be acceptable to bring to the site and have under a capped surface.

Regards,

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Tauren R. Beggs**

Phone: (920) 510-3472

[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov) (preferred contact method during work at home)

---

**From:** Byers, Harris <[Harris.Byers@stantec.com](mailto:Harris.Byers@stantec.com)>  
**Sent:** Thursday, May 13, 2021 9:29 PM  
**To:** Beggs, Tauren R - DNR <[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)>  
**Subject:** Soil from 8th and Maritime in Manitowoc

Tauren:

Apologies for an informal submittal; but a small pile of soil (maybe 30 CY) was just generated during utility installation at 8<sup>th</sup> and Maritime in Manitowoc. As noted on the attached; the spoil is sand with some/trace gravel (presumed reworked native soils) placed when the road was last reconstructed.

We collected two samples from the spoil pile for PAH and heavy metal analysis (no PID measurements above background) and wondered if you would be OK with this material being used to backfill utility trenches at River Point.

The detection of PAHs in soil at TP-6 was surprising as the soil looked very similar to other materials we have encountered in the ROWs in Manitowoc (sandy fill) with no olfactory indications of impacts. There are no suspect source areas nearby (e.g. petroleum fueling stations/etc) that could be a "source" of impacts.

The utility trenches on River Point would be capped with an asphalt paved driving surface.

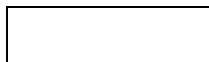
Sincerely,

**Harris Byers, Ph.D.**

Sr. Brownfields Project Manager  
Contaminant Hydrogeologist / Urban Geochemist

Direct: 414 581-6476  
[Harris.Byers@stantec.com](mailto:Harris.Byers@stantec.com)

Stantec  
12075 Corporate Parkway Suite 200  
Mequon WI 53092-2649



Detected Constituents in Soil  
8th and Maritime Drive  
Manitowoc, Wisconsin

Detected Constituents in Soil	Units	Wisconsin SBTV (A)	Non-Industrial Direct Contact RCL (B)	Industrial Direct Contact RCL (C)	Soil to Groundwater RCL (D)	Sample Information	
						TP-5	TP-6
						5-10-2021	5-10-2021
						500-198906-1	500-198906-2
						Fill sand	Fill sand and gravel
<b>Heavy Metals</b>							
Arsenic	mg/kg	8.3	8.3* [0.677]	8.3* [3]	8.3* [0.584]	1.5 <sup>BD</sup>	1.6 <sup>BD</sup>
Barium	mg/kg	364	15,300	100,000	364* [164.8]	20	28
Cadmium	mg/kg	1.07	71.1	985	1.07* [0.752]	0.080 J	0.15 J
Chromium	mg/kg	43.5	n/v	n/v	360,000	7.2	8.8
Lead	mg/kg	51.6	400	800	51.6* [27]	11	29 <sup>D</sup>
Mercury	mg/kg	n/v	3.13	3.13	0.208	0.025	0.042
<b>Polycyclic Aromatic Hydrocarbons</b>							
Acenaphthene	µg/kg	n/v	3,590,000	45,200,000	n/v	12 J	35
Acenaphthylene	µg/kg	n/v	n/v	n/v	n/v	<4.7	12 J
Anthracene	µg/kg	n/v	17,900,000	100,000,000	196,949	29 J	84
Benzo(a)anthracene	µg/kg	n/v	1,140	20,800	n/v	100	290
Benzo(a)pyrene	µg/kg	n/v	115	2,110	470	110	380 <sup>B</sup>
Benzo(b)fluoranthene	µg/kg	n/v	1,150	21,100	478	140	540 <sup>D</sup>
Benzo(g,h,i)perylene	µg/kg	n/v	n/v	n/v	n/v	43	170
Benzo(k)fluoranthene	µg/kg	n/v	11,500	211,000	n/v	38	120
Chrysene	µg/kg	n/v	115,000	2,110,000	144	110	310 <sup>D</sup>
Fluoranthene	µg/kg	n/v	2,390,000	30,100,000	88,878	180	630
Fluorene	µg/kg	n/v	2,390,000	30,100,000	14,830	8.5 J	35
Indeno(1,2,3-cd)pyrene	µg/kg	n/v	1,150	21,100	n/v	38	160
Methylnaphthalene, 1-	µg/kg	n/v	17,600	72,700	n/v	<8.8	13 J
Methylnaphthalene, 2-	µg/kg	n/v	239,000	3,010,000	n/v	<6.6	15 J
Naphthalene	µg/kg	n/v	5,520	24,100	658	<5.5	15 J
Phenanthrene	µg/kg	n/v	n/v	n/v	n/v	150	380
Pyrene	µg/kg	n/v	1,790,000	22,600,000	54,546	250	570