



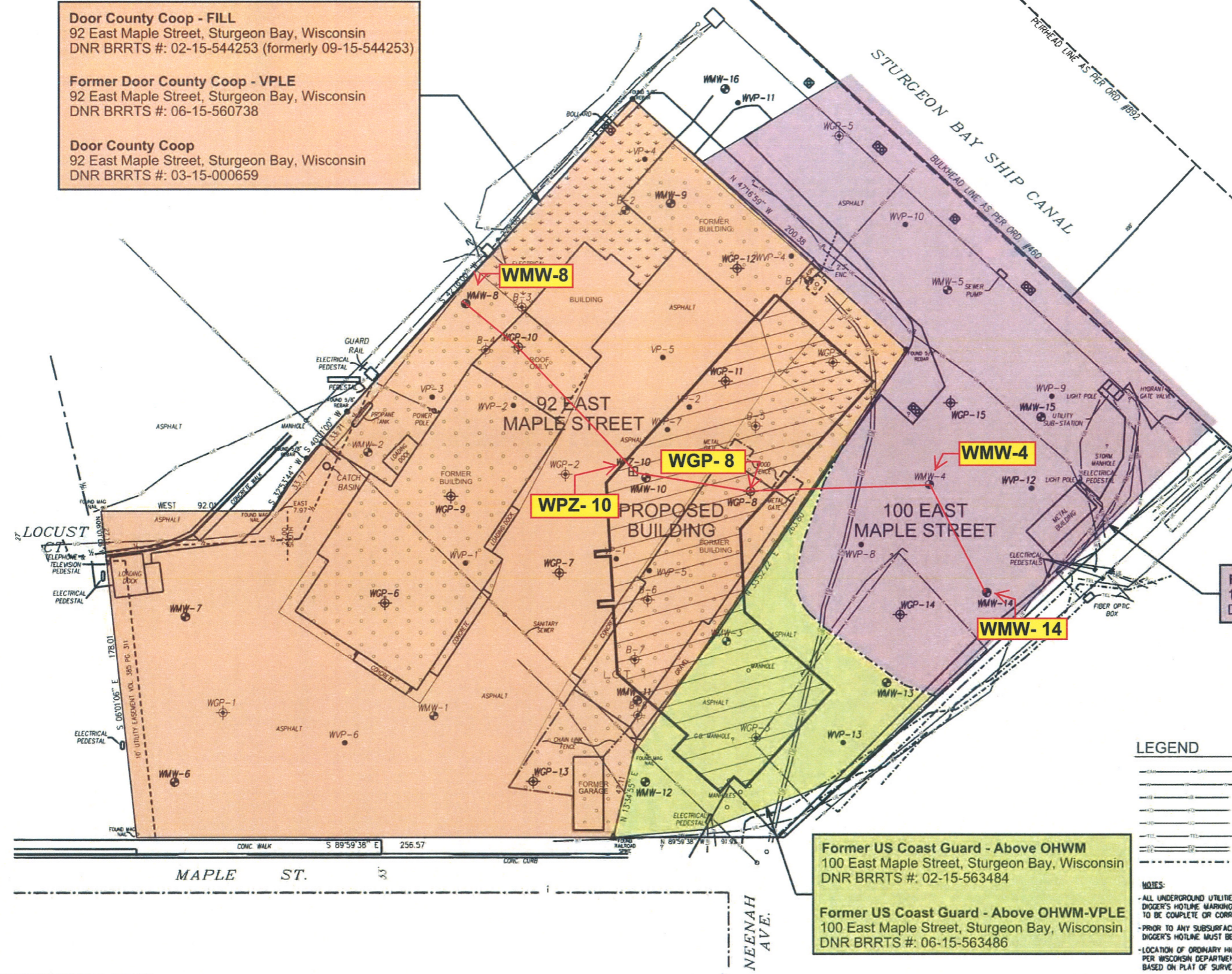
Door County Coop - FILL
92 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 02-15-544253 (formerly 09-15-544253)

Former Door County Coop - VPLE
92 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 06-15-560738

Door County Coop
92 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 03-15-000659

GROUND SURFACE COVER

- GRASS
- SAND & GRAVEL
- ASPHALT/CONCRETE



Former US Coast Guard - Below OHWM
100 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 02-15-563485

Former US Coast Guard - Above OHWM
100 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 02-15-563484

Former US Coast Guard - Above OHWM-VPLE
100 East Maple Street, Sturgeon Bay, Wisconsin
DNR BRRTS #: 06-15-563486

LEGEND

- SANITARY SEWER LINE
 - WATER MAIN
 - UNDERGROUND ELECTRIC LINE
 - UNDERGROUND FIBER OPTIC LINE
 - UNDERGROUND GAS LINE
 - UNDERGROUND TELEPHONE LINE
 - UNDERGROUND ELECTRIC & FIBER OPTIC
 - ORDINARY HIGH WATER MARK
- MONITORING WELL
 - GEOPROBE
 - VAPOR PROBE
 - PIEZOMETER
 - MONITORING WELL (BY STS CONSULTANTS 2004)
 - GEOPROBE (BY STS CONSULTANTS 2004)
 - VAPOR PROBE (BY STS CONSULTANTS 2004)
- NOTES:**
- ALL UNDERGROUND UTILITIES WERE LOCATED AS PER DIGGER'S HOTLINE MARKINGS AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT.
- PRIOR TO ANY SUBSURFACE WORK ON THIS PROPERTY, DIGGER'S HOTLINE MUST BE CONTACTED FOR A RE-LOCATE.
- LOCATION OF ORDINARY HIGH WATER MARK OF STURGEON BAY PER WISCONSIN DEPARTMENT OF NATURAL RESOURCES BASED ON PLAT OF SURVEY DATED OCTOBER 2, 2014

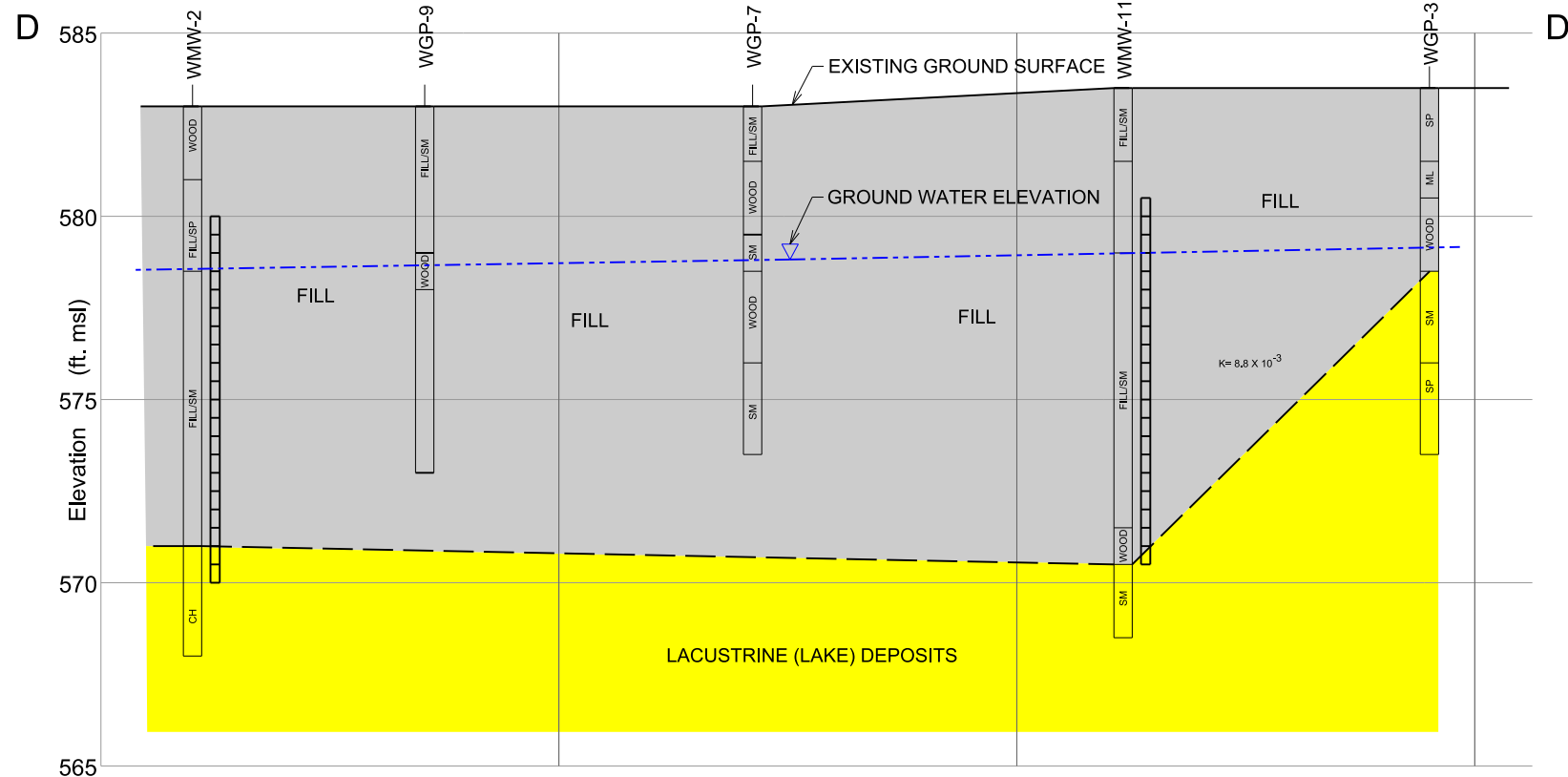
DES BY	BOOK NO	DATE	REVISION	NO	DATE	REVISION
J. STEINER	1	02-11-2015	ADDED ORDINARY HIGH WATER MARK FOR STURGEON BAY			
T. SHUPERT	2	06-11-2015	ADDED WGP-13 - 15, WMW-12 - 16, MVP-11 - 13			
J. STEINER	3	08-26-2015	ADDED GROUND SURFACE COVER INFORMATION			
J. STEINER		JUNE 2015				

WEST WATERFRONT REDEVELOPMENT PROJECT
CITY OF STURGEON BAY
STURGEON BAY, WISCONSIN

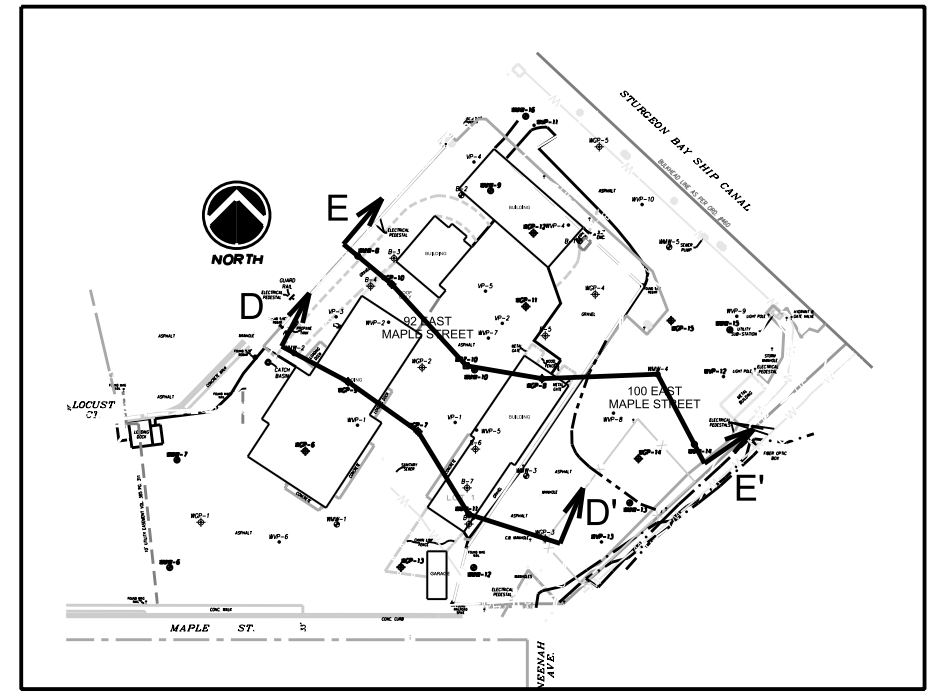


SITE MAP

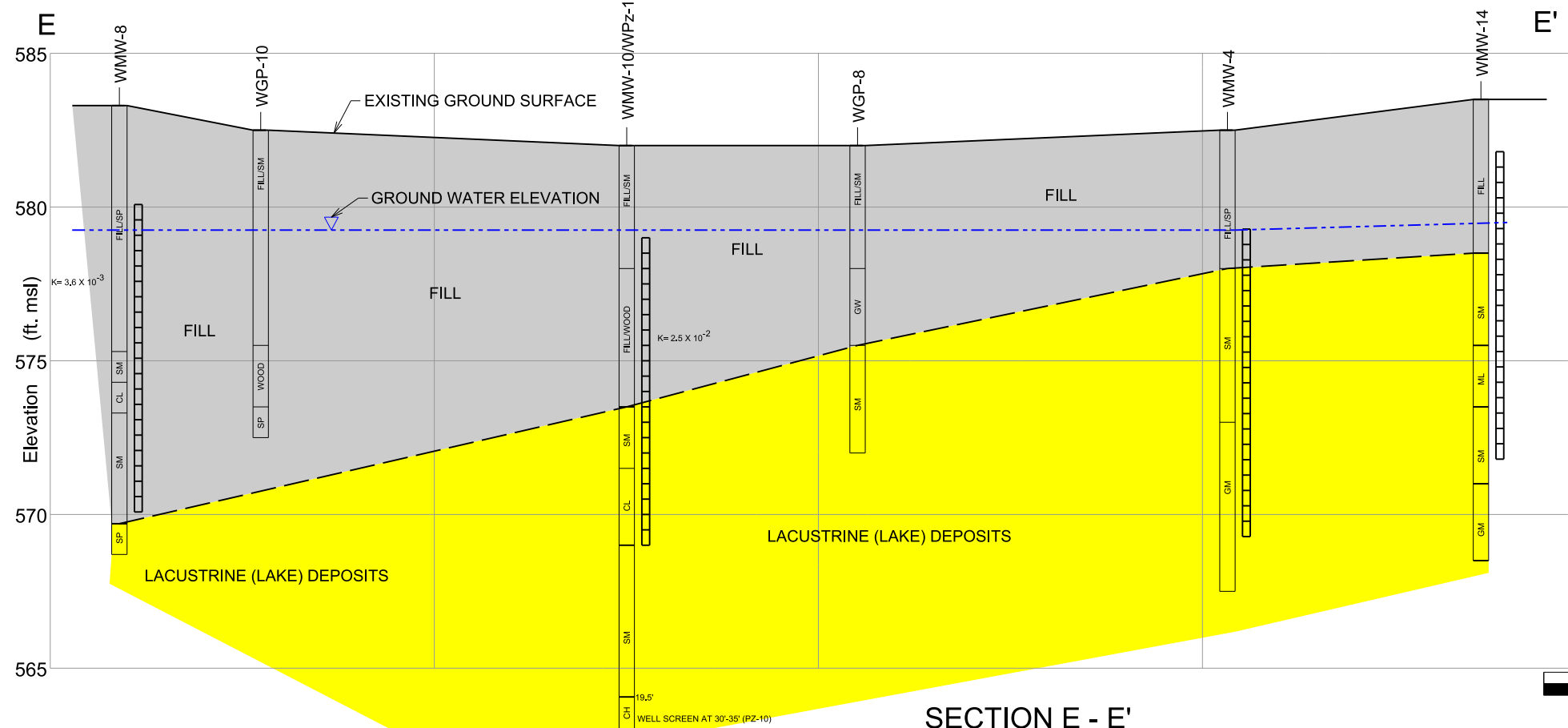
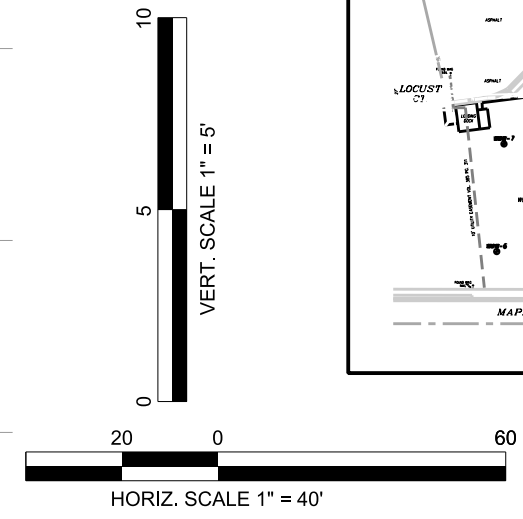
Ayres_pdfs\p1010 ES_text_1010.dwg 9/9/2015 L:\Sturgeon Bay\DCR\Site Map w Prop Building.dgn



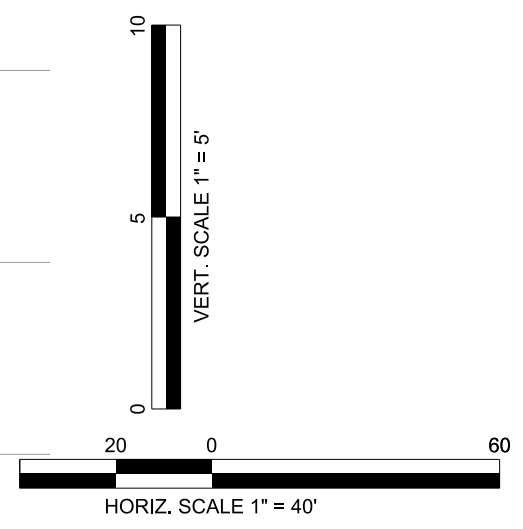
SECTION D - D'



SECTION LOCATION MAP
NTS



SECTION E - E'



- LEGEND**
- WATER LEVEL MEASURED IN WATER TABLE OBSERVATION WELL
 - MONITORING WELL SCREEN INTERVAL
 - CL INORGANIC CLAYS OF LOW PLASTICITY
 - CH INORGANIC CLAYS OF HIGH PLASTICITY
 - ML INORGANIC SILTS AND VERY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
 - SC CLAYEY SANDS, SAND - CLAY MIXTURES
 - SM SILTY SANDS, SAND - SILT MIXTURES
 - SP POORLY - GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
 - GM SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
 - GP POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
 - $K=4.9 \times 10^{-3}$ HYDRAULIC CONDUCTIVITY (cm/sec)

Avesa.pdf.plt
 ES: 10/23/2015
 6/23/2015
 V:\EN\CAD\Sturgeon Bay\DWG\Geologic\Sections C.dgn

DES BY	J. STEINER	BOOK NO	
DR BY	T. SHUPERT	JOB NO	19-0422.00
CHK BY	J. STEINER	DATE	JUNE 2015
	NO	DATE	REVISION
	NO	DATE	REVISION

WEST WATERFRONT REDEVELOPMENT PROJECT
 CITY OF STURGEON BAY
 STURGEON BAY, WISCONSIN

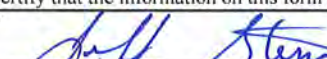


GEOLOGICAL CROSS SECTION D - D' AND E - E'

DRAWING NO
6

Route to:
 Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name West Waterfront Redevelopment Project				License/Permit/Monitoring Number				Boring Number WMW-8						
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Tony Last Name: Kapugi Firm: On_Site Environmental Drilling Inc.				Date Drilling Started 7/15/2014 M/D/Y		Date Drilling Completed 7/15/2014 M/D/Y		Drilling Method 4.25" ID Hollow Stem Auger						
WI Unique Well No.		DNR Well Id No.		Well Name WMW-8		Final Static Water Level 3.81		Surface Elevation 583.5		Borehole Dia. 8-inch				
Local Grid Origin L (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane <u> </u> N, <u> </u> E NE 1/4 of NE 1/4, of Section 7, T 27 N, R 26 E				Lat. " ' "		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		Feet		Feet				
Facility Id.		County Door		County Code 15		Civil Town/City/or Village City of Sturgeon Bay								
SAMPLE		Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID	SOIL PROPERTIES					RQD/Comments
Number and Type	Length/Air & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			-1	Concrete (4") FILL, SAND, some gravel, coal ash, low moisture, no odor, grey-white-brown	FILL/ SP			0		M				
			-2					0		W				
			-3					0		W				
			-4					0		W				
			-5					0		W				
			-6					0		W				
			-7					0		W				
			-8					0		W				
			-9	SAND, some silt, white blendable soil-material wet, no odor, reddish brown	SM			0		W				
			-10	CLAY, silty, some sand, wet, low plasticity, no odor, reddish brown	CL			0		W				
			-11	SAND, some silt, some gravel, wet, no odor gray	SM			0		W				
			-12					0		W				
			-13					0		W				
			-14	SAND, some gravel, occ. 1" red clay lenses, wet, no odor, reddish brown	SP			0		W				
			-15					0		W				
			-16	EOB @ 15 feet bgs Well set @ 12.8 feet										
			-17											
			-18											
			-19											
			-20											
			-21											
			-22											
			-23											
			-24											
			-25											

I hereby certify that the information on this form is true and correct to the best of my knowledge.
 Signature  Firm **AYRES ASSOCIATES**

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this report is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route to:
 Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name West Waterfront Redevelopment Project			License/Permit/Monitoring Number		Boring Number WPZ-10
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Tony Last Name: Kapugi Firm: On_Site Environmental Drilling Inc.			Date Drilling Started 7/14/2014 M/D/Y	Date Drilling Completed 7/14/2014 M/D/Y	Drilling Method 4.25" ID Hollow Stem Auger
WI Unique Well No.	DNR Well Id No.	Well Name WPZ-10	Final Static Water Level 4.88	Surface Elevation 582	Borehole Dia. 8-inch
Local Grid Origin L (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane <u> </u> N, <u> </u> E NE 1/4 of NE 1/4, of Section 7, T 27 N, R 26 E			Lat. <u> </u> " <u> </u> " Long. <u> </u> " <u> </u> "	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility Id.		County Door	County Code 15	Civil Town/City/or Village City of Sturgeon Bay	

SAMPLE			Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID	SOIL PROPERTIES					RQD/Comments
Number and Type	Length Att. & Recovered (m)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			-1	Concrete (4") FILL, SAND, some silt, some gravel, moist no odor, gray/white	Fill/ SM			0		M				
			-5	FILL, woodchips, moist, no odor dk brown	Fill/ Wood			0		M				
			-9	SAND, some silt, wet, no odor, dk brown	SM			0		W				
			-11	CLAY, some gravel, wet, low plasticity, no odor, red/brown	CL			0		W				
			-14	SAND, some silt, some gravel, wet no odor, dk brown	SM			0		W				
			-20	CLAY, some gravel, wet, high plasticity no odor, red	CH			0		W				

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 Signature: Firm: **AYRES ASSOCIATES**

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SOIL BORING LOG INFORMATION (CONTINUED)

Form 4400-122

7-91

WPZ-10 cont.

Page 2 of 2

SAMPLE		BLOW COUNT	DEPTH IN FEET	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	FIELD OBSERVATIONS				SOIL PROPERTIES				RDQ/ comment			
NUMBER	LENGTH RECOVERED (IN)				USCS	GRAPHIC LOG	WELL DIAGRAM	PID/ FID	STANDARD PENETRATION	MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT		P-200		
			-26	CLAY, some gravel, wet, high plasticity no odor, red	CH											
			-27									W				
			-28									W				
			-29													
			-30									W				
			-31													
			-32													
			-33									W				
			-34													
			-35					EOB @ 35 feet bgs								
			-36	Well set @ 34.7 feet												
			-37													
			-38													
			-39													
			-40													
			-41													
			-42													
			-43													
			-44													
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			-59													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature





Firm


AYRES ASSOCIATES

This form is authorized by Chapters 144.147 and 162, Wis.Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 or nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or

Route to:
 Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name West Waterfront Redevelopment Project			License/Permit/Monitoring Number		Boring Number WGP-8
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Tony Last Name: Kapugi Firm: On_Site Environmental Drilling Inc.			Date Drilling Started 7/15/2014 M/D/Y	Date Drilling Completed 7/15/2014 M/D/Y	Drilling Method Geoprobe
WI Unique Well No.	DNR Well Id No.	Well Name WGP-8	Final Static Water Level	Surface Elevation	Borehole Dia. 2-inch
Local Grid Origin 1 (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane _____ N _____ E NE 1/4 of NE 1/4, of Section 7, T 27 N, R 26 E			Lat. _____ " _____ "	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility Id.		County Door	County Code 15	Civil Town/City/or Village City of Sturgeon Bay	

SAMPLE			SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID	SOIL PROPERTIES					RQD/Comments
Number and Type	Length Att & Recovered (ft)	Flow Counts						Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			Concrete (4") FILL, SAND, some silt, some gravel, moist no odor, lt brown/gray	FILL/SM			1		M				
			GRAVEL, some sand, moist, well graded, no odor black and lt brown	GW			0		M				
			SAND, some silt, some gravel, moist, no odor, dk brown - lt gray	SM			2		M				
			**indistinct odor @ 9ft				0						
			EOB @ 10 feet bgs Abandoned with bentonite chips										

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 Signature  Firm **AYRES ASSOCIATES**

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Route to:
 Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name West Waterfront Redevelopment Project			License/Permit/Monitoring Number			Boring Number WMW-4		
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Tony Last Name: Kapugi Firm: On Site Environmental Drilling Inc.			Date Drilling Started 5/23/2013 M/D/Y		Date Drilling Completed 5/23/2013 M/D/Y		Drilling Method 4.25" ID Hollow Stem Auger	
WI Unique Well No.	DNR Well Id No.	Well Name WMW-4	Final Static Water Level 4.38		Surface Elevation		Borehole Dia. 8-inch	
Local Grid Origin L (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane _____ N, _____ E NE 1/4 of NE 1/4, of Section 7, T 27 N, R 26 E			Lat. _____		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W			
Facility Id.		County Door		County Code 15		Civil Town/City/or Village City of Sturgeon Bay		

SAMPLE				SOIL PROPERTIES										
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PI/DI	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			-1	Asphalt (4") FILL, SAND, some gravel, trace silt, moist, medium grained, no odor, brown	FILL/SP			0.8		M				
			-2											
			-3											
			-4											
			-5											
			-6	SAND, silty, some gravel, wet, no odor	SM			0.6		M				
			-7											
			-8											
			-9											
			-10											
			-11	GRAVEL, silty, some organic material, coarse grained, wet, no odor, black				0		W				
			-12											
			-13											
			-14											
			-15	cobbles at 15 feet	GM			0		W				
			-16	EOB @ 15 feet bgs Well set @ 12.8 feet				0.2		W				
			-17											
			-18											
			-19											
			-20											
			-21											
			-22											
			-23											
			-24											
			-25											

I hereby certify that the information on this form is true and correct to the best of my knowledge.
 Signature *Jeff Storms* Firm **AYRES ASSOCIATES**

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Route to:
Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name West Waterfront Redevelopment Project			License/Permit/Monitoring Number		Boring Number WMW-14
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Dusty Last Name: Firm: On Site Environmental Drilling Inc.			Date Drilling Started 5/15/2015 M/D/Y	Date Drilling Completed 5/15/2015 M/D/Y	Drilling Method 4.25" ID Hollow Stem Auger
WI Unique Well No.	DNR Well Id No.	Well Name WMW-14	Final Static Water Level 3.65	Surface Elevation 583.5	Borehole Dia. 8-inch
Local Grid Origin (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane _____ N, _____ E NE 1/4 of NE 1/4, of Section 7, T 27 N, R 26 E			Lat. _____ Long. _____	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility Id.		County Door	County Code 15	Civil Town/City/or Village City of Sturgeon Bay	

Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in feet (below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID	SOIL PROPERTIES					ROD/Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			-1	Paved Lot FILL, silty sand, some gravel, dry, hydrocarbon odor, brown	FILL			8.7		D				
			-2											
			-3											
			-4											
			-5	SAND, silty, some gravel, wet, slight hydrocarbon odor, brown	SM			2.2		D				
			-6											
			-7											
			-8	SILT, trace clay, wet, non- plastic, no odor, black	ML			3.5		W				
			-9											
			-10	SAND, silty, wet, fine-med grained, slight hydrocarbon odor, dk brown	SM			3.0		W				
			-11											
			-12											
			-13	Gravel, some sand, trace-some silt, wet, med-course grained sand, fine-med gravel, somewhat well graded, no odor, brown	GM			1.6		W				
			-14											
			-15											
			-16	EOB @ 15 feet bgs Well set @ 11.7 feet				1.8		W				
			-17											
			-18											
			-19											
			-20											
			-21											
			-22											
			-23											
			-24											
			-25											

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature *Evan Geoss* Firm **AYRES ASSOCIATES**

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