

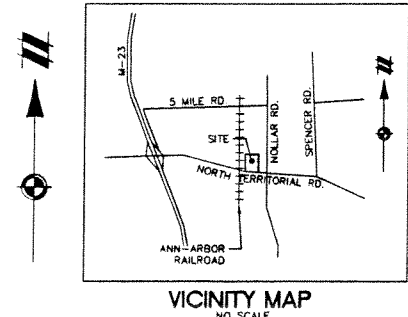
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JUN 10 2015

NORTHFIELD TOWNSHIP

STEELE TRUCKING

CONDITIONAL USE PLAN



811
Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ANY AND ALL UNDERGROUND UTILITIES.

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www.atwell-group.com
866.850.4000
123 N. ASHLEY ST. SUITE 105
ANN ARBOR, MI 48104
734.994.4000

SECTION 21
TOWN 1 SOUTH, RANGE 6 EAST
NORTHFIELD TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

CLIENT: STEELE TRUCKING, INC.
PROJECT: STEELE TRUCKING CONDITIONAL USE PLAN COVER SHEET

DATE: JUNE 3, 2015

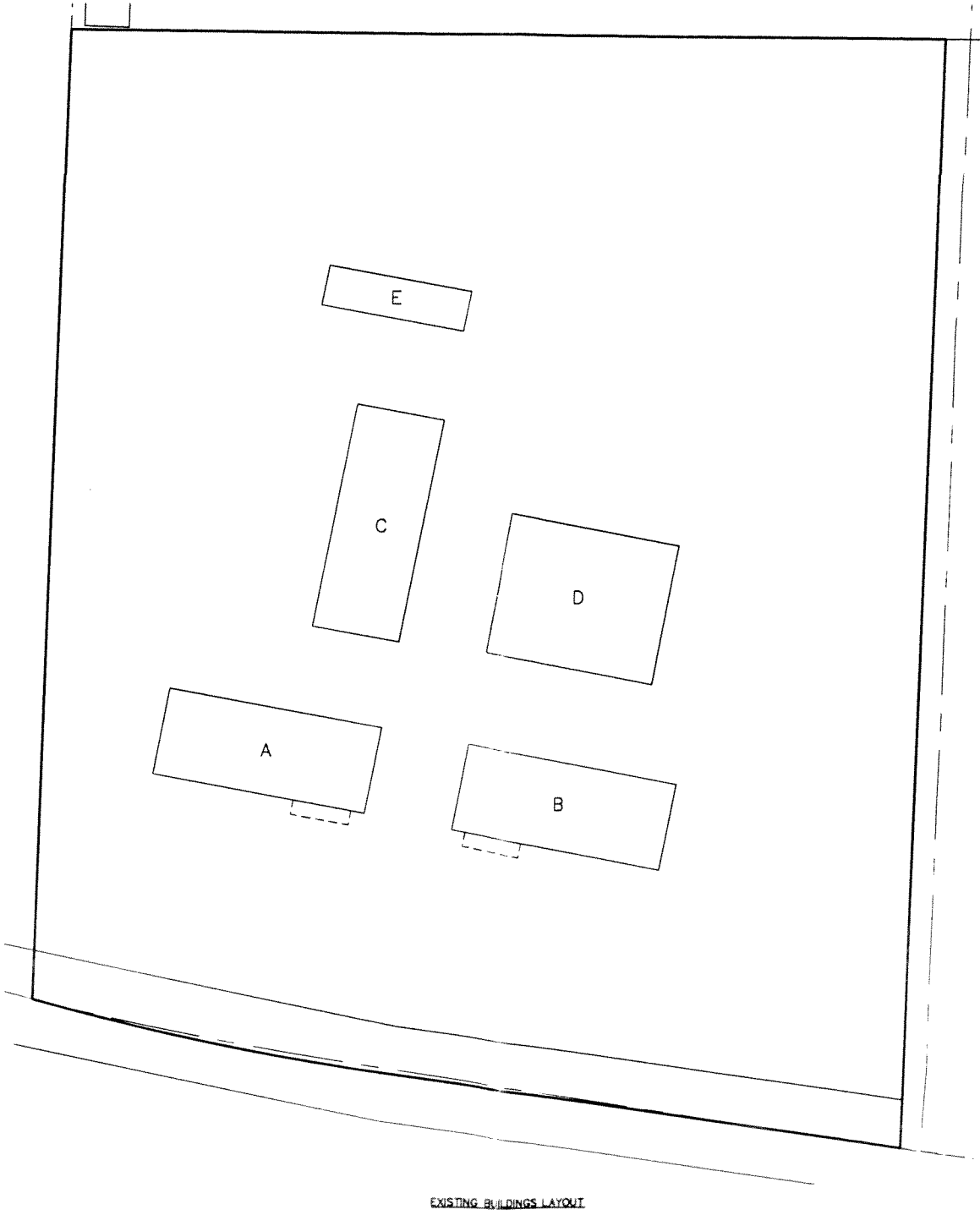
REVISIONS

SCALE: 1" = 50 FEET

DR. KWK | CH. MDE
P.M. L. DROULLARD
BOOK: ---
JOB: 15000502
SHEET NO. 01

SITE DATA TABLE:

ZONING	REQUIRED GI	EXISTING GI	NOTES
LOT AREA (ac)	5 ac. (min.)	10.01	
LOT WIDTH (ft)	200' (min.)	337	
SETBACKS			
Front (ft)	85	85	
Side (ft)	60	60	
Rear (ft)	30	50	
GROSS FLOOR AREA (sq ft)			
Office		41,429	Total of 5 buildings
Retail		2,200	Part of SW & SE buildings A & B
Maintenance shop		2,200	Part of SW building A
Warehousing/storage		2,200	Part of SE building B
		11,366	
		25,663	Remainder of all buildings
LOT COVERAGE (%)			
	25% max.	10%	
FLOOR AREA Ratio (%)			
	80% max.	10%	
BUILDING			
Height (ft)	40' max.	<20	
Stories	2 max.	1	
PARKING			
Employees			8-10 on site - 2 in repair shop
Office	11	15	One space for each 200 square feet of gross floor area.
Retail	11	10	One space for each 200 square feet of retail sales floor area.
Maintenance shop	2	2	One space for each 1 employee.
Warehousing/storage	13	13	Warehousing/storage: One space for each 2,000 square feet of floor area, plus one space for each vehicle to be stored on the premises, plus one space per employee.
Total Spaces	37	40	
Handicap Spaces	1	2	
Truck Parking Spaces (evident)		6	
Loading Spaces	2	2	One space for the first 5,000 square feet of gross floor area, and one space for each additional 20,000 square feet of gross floor space. A loading/unloading space shall not be less than ten feet in width and 55 feet in length.



PROPRIETOR

GYOA LEASING INC
P.O. BOX 606
MANCHESTER, MICHIGAN 48158
ATTN: RYAN STEELE

ENGINEER / PLANNER

ATWELL, LLC
123 N. ASHLEY ST, SUITE 105
ANN ARBOR, MICHIGAN 48104
PHONE: 734.994.4000
ATTN: TODD PASCOE

PROJECT DESCRIPTION:

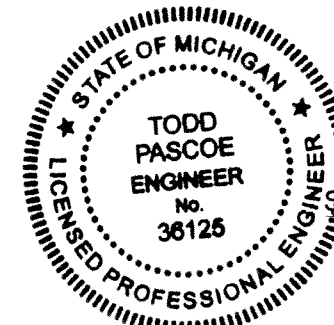
This site was previously used by a lumber company, including storage and retail. The proposed use is for a trucking and landscape company, and includes the following:

- Building A - SW Building Use - Maintenance Shop with up to 25% Retail Space
- Building B - SE Building Use - Warehouse/Storage with up to 25% Retail Space
- Building C - NW Building Use - Warehouse/Storage
- Building D - NE Building Use - Maintenance Shop
- Building E - North Building Use - Warehouse/Storage, might be demolished in future

- Site changes - Phase 1
- Clean up site and provide building upgrades
 - Maintain/repair existing pavement
 - Parking - See Site Data table
 - Add landscape material storage bins
 - Add a truck scale

- Site changes - Phase 2
- Connect to Township Sewer system
 - Add landscape material storage bins & supplies, outdoor display, outdoor storage
 - Add additional paving and detention basins
 - Landscape improvements
 - Provide storm water management system improvements
 - Wetland fill less than 0.3 acres

- Site changes - Phase 3
- Activate RR spur



SHEET INDEX

- 1 COVER SHEET
- 2 EXISTING CONDITIONS PLAN
- 3 LAYOUT PLAN
- 4 GRADING PLAN

Tree Survey Results (Atwell Project # 15000502)						
TAG NO.	SPECIES	SCIENTIFIC NAME	DBH (in)	CONDITION	COMMENTS	LANDMARK TREE?
658	White Spruce	<i>Picea glauca</i>	8.0	Good		No
659	Blue Spruce	<i>Picea pungens</i>	11.0	Good		No
660	Blue Spruce	<i>Picea pungens</i>	12.0	Good		No
661	White Spruce	<i>Picea glauca</i>	12.0	Good		No
662	White Spruce	<i>Picea glauca</i>	10.0	Good		No
663	Blue Spruce	<i>Picea pungens</i>	11.0	Good		No
664	White Spruce	<i>Picea glauca</i>	9.5	Good		No
665	Blue Spruce	<i>Picea pungens</i>	8.0	Good	MT 7.5	No
666	White Spruce	<i>Picea glauca</i>	8.5	Good		No
667	White Spruce	<i>Picea glauca</i>	10.5	Fair		No
668	White Spruce	<i>Picea glauca</i>	9.5	Fair		No
669	Box-elder	<i>Acer negundo</i>	9.5	Fair	In fence line	No
670	Box-elder	<i>Acer negundo</i>	7.5	Fair		No
671	Box-elder	<i>Acer negundo</i>	7.0	Fair		No
672	Box-elder	<i>Acer negundo</i>	7.5	Fair	MT 6.0	No
673	Box-elder	<i>Acer negundo</i>	7.0	Fair	MT 6.5+6.0	No
674	Box-elder	<i>Acer negundo</i>	6.0	Fair		No
675	Box-elder	<i>Acer negundo</i>	6.5	Fair		No
676	Cherry	<i>Prunus avium</i>	9.5	Fair	MT 7.5	No
677	Box-elder	<i>Acer negundo</i>	6.0	Fair		No
678	Willow	<i>Salix spp.</i>	6.5	Good		No
679	Cottonwood	<i>Populus deltoides</i>	10.5	Good		No
680	Cottonwood	<i>Populus deltoides</i>	8.0	Good		No
681	Cottonwood	<i>Populus deltoides</i>	6.0	Good		No
682	Cottonwood	<i>Populus deltoides</i>	6.5	Good		No
683	Cottonwood	<i>Populus deltoides</i>	12.5	Good		No
684	Willow	<i>Salix spp.</i>	6.5	Good	MT 4.5	No
685	Willow	<i>Salix spp.</i>	9.0	Good		No
686	Willow	<i>Salix spp.</i>	7.5	Good		No
687	Willow	<i>Salix spp.</i>	6.0	Good		No
688	Willow	<i>Salix spp.</i>	6.5	Good		No
689	Willow	<i>Salix spp.</i>	7.0	Good		No
690	Willow	<i>Salix spp.</i>	7.5	Good	MT 6.0+5.5	No
691	Red Cedar	<i>Juniperus virginiana</i>	2.0	Fair	Ht-8 feet	No
692	Red Cedar	<i>Juniperus virginiana</i>	3.0	Good	MT 2.0+1.5, Ht-12 feet	No
693	Red Cedar	<i>Juniperus virginiana</i>	3.0	Good	MT 1.0, Ht-10 feet	No
694	Red Maple	<i>Acer rubrum</i>	8.0	Fair	MT 7.5+4.0	No
695	White Pine	<i>Pinus strobus</i>	3.0	Fair	Ht-10 feet	No
696	White Pine	<i>Pinus strobus</i>	3.0	Fair	Ht-9-10 feet	No

MT = Multi-trunk; Approximate Height = Ht

EXHIBIT A PROPERTY DESCRIPTION (PER AMERICAN LAND TITLE ASSOCIATION, COMMITMENT NUMBER HU14070153MIC, EFFECTIVE DATE: SEPTEMBER 3, 2014)

The land referred to in this Commitment is described as follows:
 Land situated in the Township of Northfield, County of Washtenaw, and State of Michigan, described as: Commencing at the South 1/4 corner of Section 21, Town 1 South, Range 6 East, Northfield Township, Washtenaw County, Michigan; thence North 01 degrees 55 minutes 10 seconds East 2640.80 feet along the North-South 1/4 line of said Section to the center of said Section; thence South 05 degrees 06 minutes 30 seconds West 470.13 feet along the centerline of Nollar Road; thence North 89 degrees 28 minutes 20 seconds West 650.35 feet for a piece of beginning; thence South 01 degree 30 minutes 20 seconds West 787.09 feet; thence along the centerline of North Territorial Road in the following courses: North 82 degrees 02 minutes 43 seconds West 357.18 feet; 249.87 feet along the arc of a 1909.81 foot radius circular curve to the right, chord North 78 degrees 18 minutes 30 seconds West 248.48 feet; thence North 01 degree 39 minutes 20 seconds East 872.93 feet along the East line of the Ann Arbor Railroad; thence South 89 degrees 28 minutes 20 seconds East 600.74 feet to the place of beginning, being a part of the Southwest 1/4 of said Section 21.

Commonly known as 1451 North Territorial Road, Whitnora Lake, MI 48189
 Tax Identification Number B-02-21-300-015.

SCHEDULE-B EXCEPTIONS (PER AMERICAN LAND TITLE ASSOCIATION, COMMITMENT NUMBER HU14070153MIC, EFFECTIVE DATE: SEPTEMBER 3, 2014)

- 12. Rights-of-way for railroad, switch tracks, spur tracks, railway facilities and other related easements, if any, on and across the land, and as recorded in Liber 137, Page 474. (AFFECTS SUBJECT PROPERTY, AS SHOWN HEREON)
- 13. Joint Underground Easement in favor of The Detroit Edison Company and Michigan Bell Telephone Company, as recorded in Liber 1809, Page 684 and in Liber 1809, Page 688. (AFFECTS SUBJECT PROPERTY, APPROXIMATELY AS SHOWN HEREON)
- 14. Oil and Gas Lease in favor of Houston Hunt as disclosed by instrument recorded in Liber 2038, Page 972. NOTE for further conditions. See record. This company has made no further examination has been done. (AFFECTS SUBJECT PROPERTY, BLANKET OVER ENTIRE PARCEL, NOT PLOTTABLE)
- 15. Oil and Gas Lease in favor of Humble Oil & Refining Company as disclosed by instrument recorded in Liber 929, Page 325. NOTE for further conditions. See record. This company has made no further examination has been done. (DOCUMENT NOT PROVIDED)

BENCHMARK #1:
 BOAT SPIKE IN N. FACE OF UTILITY POLE
 ELEVATION: 924.70 (NAVD88)

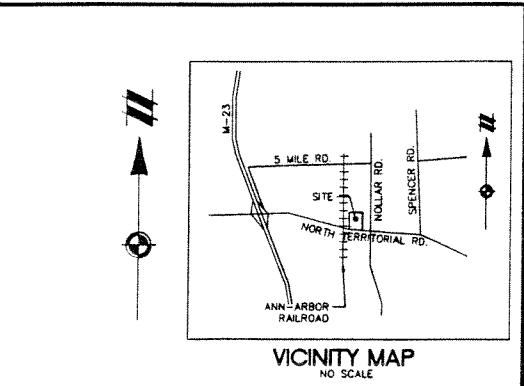
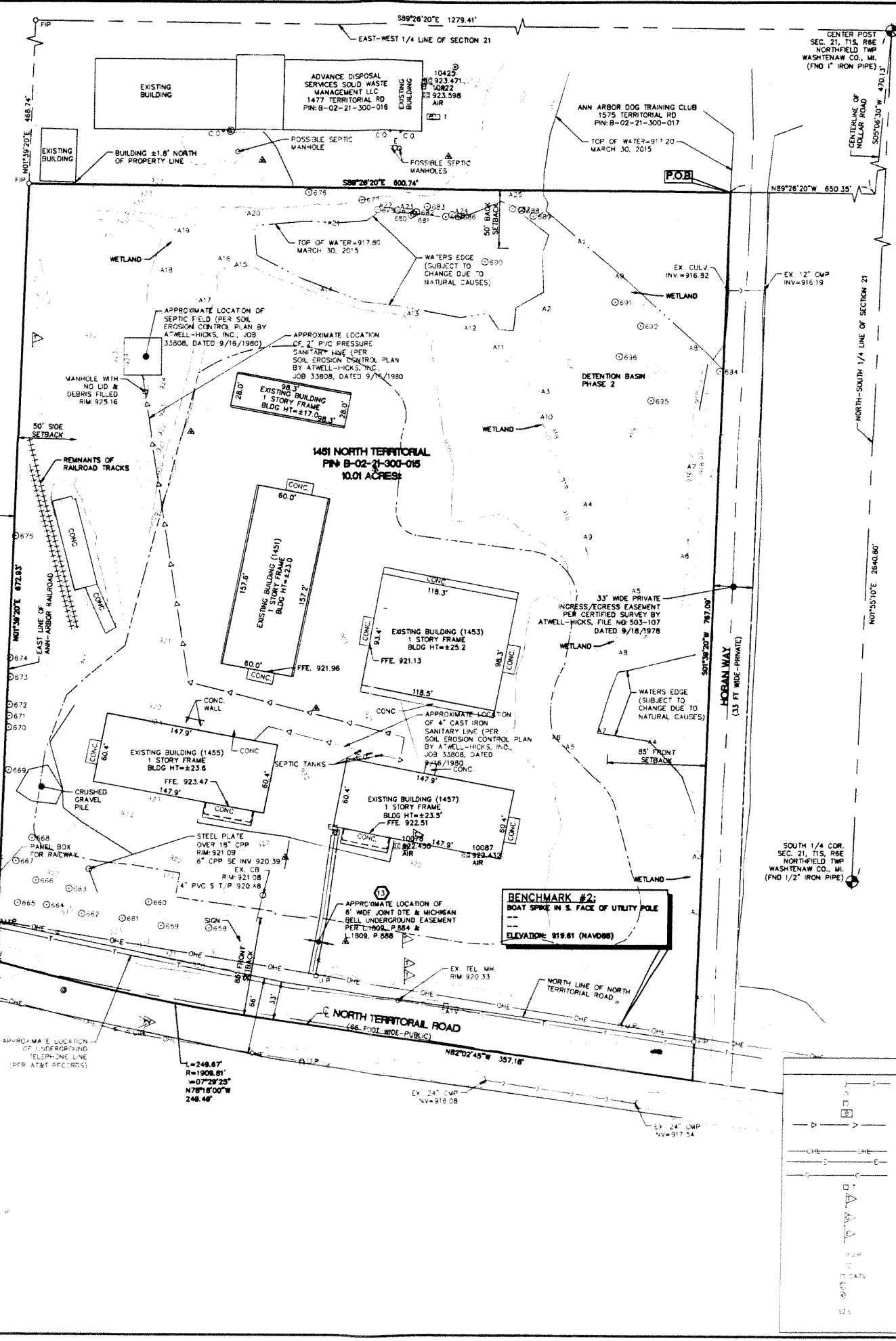
BENCHMARK #2:
 BOAT SPIKE IN S. FACE OF UTILITY POLE
 ELEVATION: 919.81 (NAVD88)

BENCHMARK #3:
 BOAT SPIKE IN S. FACE OF UTILITY POLE
 ELEVATION: 924.70 (NAVD88)

BENCHMARK #4:
 BOAT SPIKE IN S. FACE OF UTILITY POLE
 ELEVATION: 924.70 (NAVD88)

BENCHMARK #5:
 BOAT SPIKE IN S. FACE OF UTILITY POLE
 ELEVATION: 924.70 (NAVD88)

BENCHMARK #6:
 BOAT SPIKE IN S. FACE OF UTILITY POLE
 ELEVATION: 924.70 (NAVD88)



NOTES

- BEARINGS ARE BASED ON THE NORTH-SOUTH 1/4 LINE OF SECTION 21, BEING N01°55'10"E, PER DESCRIPTION CONTAINED IN TITLE COMMITMENT PROVIDED BY AMERICAN LAND TITLE ASSOCIATION, COMMITMENT NUMBER HU14070153MIC, EFFECTIVE DATE: SEPTEMBER 3, 2014.
- WATER MAIN, STORM SEWER, AND SANITARY SEWER UTILITY LINES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UTILITY MAPS HAVE BEEN REQUESTED FROM THE TOWNSHIP, BUT HAVE NOT YET BEEN RECEIVED AT THE DATE OF THE SURVEY. FRANCHISE UTILITY MAPS HAVE BEEN REQUESTED FROM THE APPROPRIATE FRANCHISE COMPANY, BUT NOT ALL MAPS BEEN RECEIVED AT DATE OF SURVEY. FRANCHISE UTILITY STRUCTURES HAVE BEEN FIELD LOCATED WHERE VISIBLE.
- THE SUBJECT PROPERTY SHOWN HEREON IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO MAP NUMBER 26161C0113E OF THE FLOOD INSURANCE RATE MAP DATED APRIL 3, 2012.
- THE SUBJECT PROPERTY IS ZONED GI (GENERAL INDUSTRIAL)

SETBACKS:
 FRONT - NOT LESS THAN 85 FEET
 SIDE - LEAST WIDTH OF EITHER YARD SHALL NOT BE LESS THAN 50 FEET
 REAR - NOT LESS THAN 50 FEET

BUILDING HEIGHT: NO BUILDING OR STRUCTURE SHALL EXCEED A HEIGHT OF 50 FEET.

LOT COVERAGE: SHALL NOT EXCEED 25 PERCENT

FLOOR AREA RATIO: SHALL NOT EXCEED 80 PERCENT OF THE LOT AREA

5. REFERENCE SURVEYS:
 -ATWELL-HICKS, INC. CERTIFIED SURVEY, FILE NO. 503-107, DATED 9/18/1978.
 -ATWELL-HICKS, INC. SOIL EROSION CONTROL PLAN, JOB 33808, DATED 9/16/1980.

LEGEND

	EXIST CULVERT/END SECTION		EXIST UNDERGROUND TELEPHONE
	EXIST MANHOLE		EXIST CLEANOUT
	EXIST CATCH BASIN/INLET		EXISTING AIR CONDITIONER
	EXIST ELECTRIC TRANSFORMER		EXISTING SIGN
	EXIST SANITARY SEWER		EXISTING MAILBOX
	EXISTING FENCE		EXISTING TRAFFIC SIGNAL
	EXISTING OVERHEAD LINE		EXISTING POST
	EXISTING UNDERGROUND ELECTRIC		EXISTING TREE #/TAG
	EXISTING UNDERGROUND GAS		EXISTING WETLAND (DELINEATED BY ATWELL)
	EXISTING UNDERGROUND TELEPHONE RISER		FOUND IRON PIPE
	EXISTING UNDERGROUND GAS MARKER		SECTION CORNER
	EXISTING UNDERGROUND ELECTRIC MARKER		PLACE OF BEGINNING
	EXISTING UTILITY POLE		SCHEDULE B-H EXCEPTIONS
	EXISTING GUY ANCHOR		
	EXISTING CABLE MARKER		
	EXISTING GAS VALVE		
	EXISTING WATER WELL		
	EXISTING ELECTRIC RISER		
	EXISTING CONTOUR		

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SECTION 21
 TOWN 1 SOUTH, RANGE 6 EAST
 NORTHFIELD TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN

STEELE TRUCKING, INC.
 STEELE TRUCKING
 CONDITIONAL USE PLAN
 EXISTING CONDITIONS

DATE: MAY 27, 2015

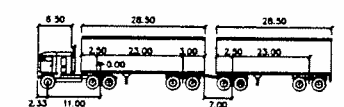
REVISIONS

SCALE 0 25 50
 1" = 50 FEET

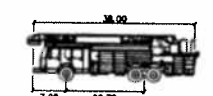
DR. KMK CH. MDE
 P.M. L. DROUILLARD
 BOOK ---
 JOB 15000502
 SHEET NO. 02



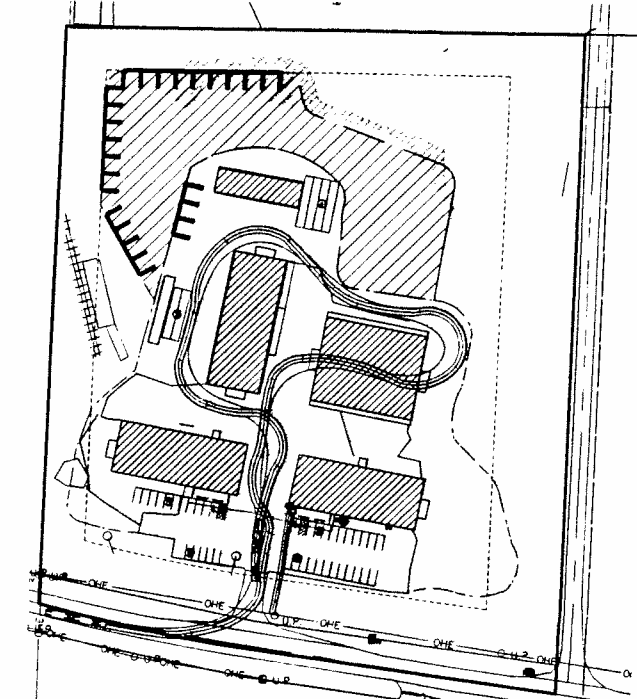
CENTER POST
SEC. 21, T1S, R8E
NORTHFIELD TWP
WASHTENAW CO., MI.
(FIND 1" IRON PIPE)



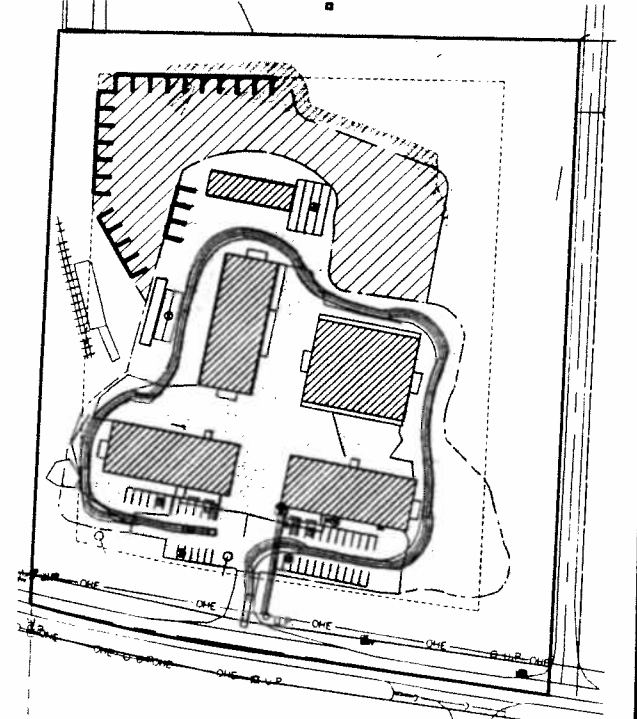
WB-67D	feet		
Tractor width	6.50	Lock to Lock Time	8.0
Tractor length	23.00	Steering Angle	15.5
Tractor height	8.00	Articulating Angle	70.0
Tractor wheel	8.50		



Fire Truck	feet
Width	7.50
Length	36.00
Lock to Lock Time	6.90
Steering Angle	45.0



SEMI-TRAILER TURNING EXHIBIT
SCALE: 1" = 100'



FIRE TRUCK TURNING EXHIBIT
SCALE: 1" = 100'

LEGEND			
	EXIST. CULVERT/ROAD SECTION		EXISTING UNDERGROUND TELEPHONE
	EXIST. MANHOLE		EXISTING CLEANOUT
	EXIST. CATCH BASIN/INLET		EXISTING AIR CONDITIONER
	EXIST. ELECTRIC TRANSFORMER		EXISTING SIGN
	EXIST. SANITARY SEWER		EXISTING MAILBOX
	EXISTING FENCE		EXISTING TRAFFIC SIGNAL
	EXISTING OVERHEAD LINE		EXISTING POST
	EXISTING UNDERGROUND ELECTRIC		EXISTING TREE #/TAG
	EXISTING UNDERGROUND GAS		EXISTING WETLAND (DELINEATED BY ATWELL)
	EXISTING TELEPHONE RISER		FOUND IRON PIPE
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	EXISTING UNDERGROUND ELECTRIC MARKER		PLACE OF BEGINNING
	EXISTING UTILITY POLE		SCHEDULE B - EXCEPTIONS
	EXISTING GUY ANCHOR		
	EXISTING CABLE MARKER		
	EXISTING GAS VALVE		
	EXISTING WATER WELL		
	EXISTING ELECTRIC RISER		
	EXISTING CONTOUR		



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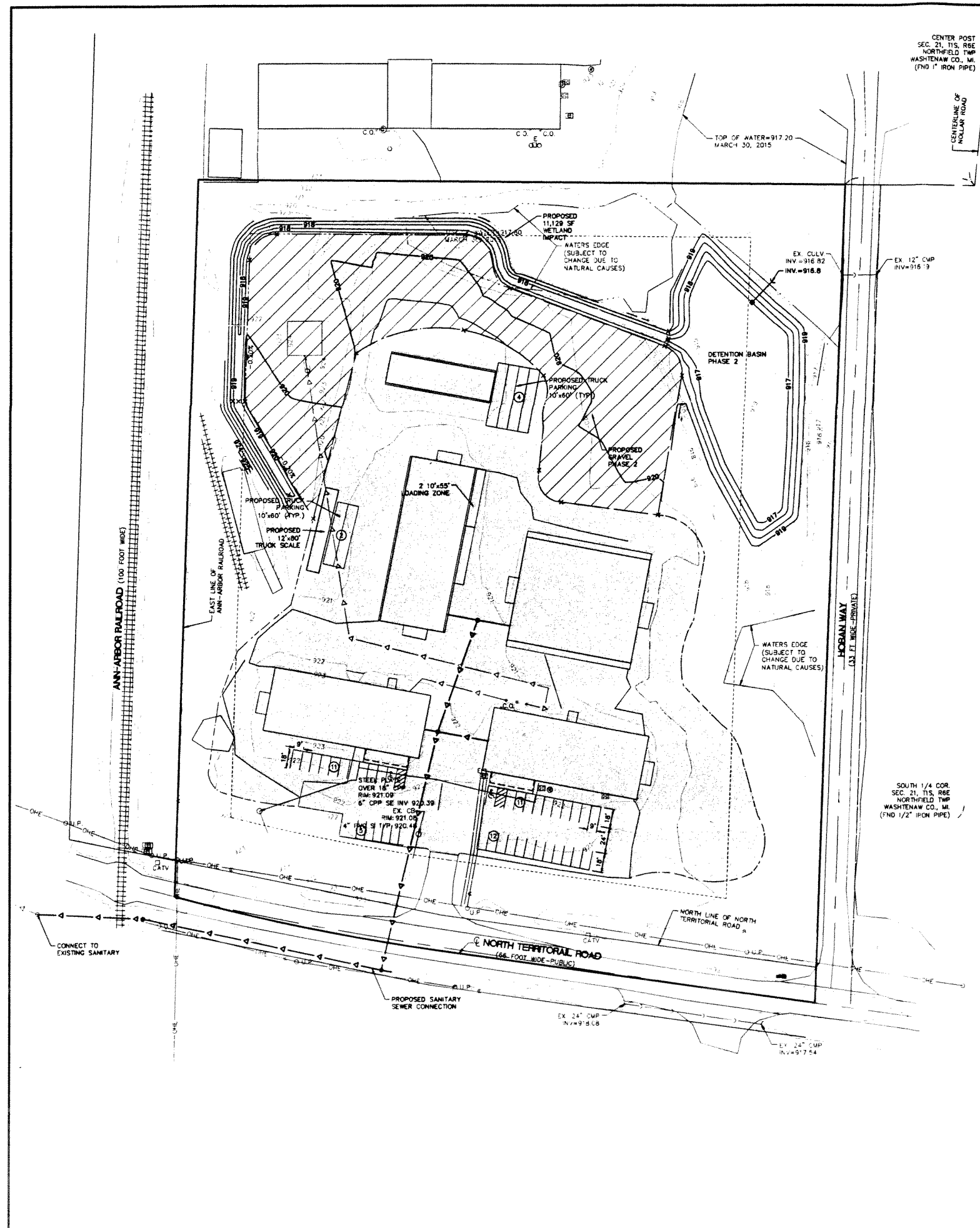
STEELE TRUCKING, INC
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CONDITIONAL USE PLAN
LAYOUT PLAN

DATE: MAY 27, 2015

REVISIONS

SCALE 0 25 50
1" = 50 FEET

DR. KMK | CH. WOE
P.M. L. DROUILLARD
BOOK ---
JOB 15000502
SHEET NO. 03



TR-55 - Worksheet: Runoff Curve Number and Runoff

Project: Steel Trucking
 Location: Northfield Township
 Condition: Proposed
 Description: Detention Required

Date: 5/30/2015
 By: SW/TP

W1 Determining Post-Development Cover Types, Areas, Curve Numbers and runoff coefficients

Runoff Method Variables	Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coef.	(C/A) Area
	Paved Parking Lots, roofs, driveways, ect	B	55,543	1.26	0.25	52,766
	Impervious, Roads	H	15,008	0.34	1.00	15,008
	Developed Open Space, Good Condition	B	13,669	0.30	0.30	3,921
Total - Sum (C/A) Area =						71,695
Area Total - Sum (C/A) Area =						83,623
Weighted C-Value (C/A) Area / Sum (C/A) Area =						0.86

NIDIS Variables	Permeable Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN/A) Area
	Developed Open Space, Good Condition	B	13,669	0.30	61	797,209
Total - Sum (CN/A) Area =						797,209
Area Total - Sum (CN/A) Area =						13,669
Weighted CN-Value (CN/A) Area / Sum (CN/A) Area =						61

NIDIS Variables	Impervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN/A) Area
	Paved Parking Lots, roofs, driveways, ect	B	55,543	1.26	98	5,143,214
	Impervious, Roads	H	15,008	0.34	98	1,470,784
Total - Sum (CN/A) Area =						6,614,000
Area Total - Sum (CN/A) Area =						70,551
Weighted CN-Value (CN/A) Area / Sum (CN/A) Area =						98

W2 First Flush Runoff Calculations (Vf)

A. $V_f = (1/12) (1/3500) (C) AC = 5,993 \text{ cf}$

W3 Predevelopment Runoff Calculations (Vf-pre)

A	2 year/24 hour storm event	P =	2.35	in
B	Permeable Cover CN	CN =	61	
C	S = (1000/CN) > 10	S =	7.24	in
D	Q = (P-0.25) / (24(P+0.85))	Q =	0.10	in
E	Permeable Cover Area	Area =	83,623	sf
F	$V_{f-pre} = Q(1/12)Area$	$V_{f-pre} =$	696	cf

W4 Permeable Cover Post-development Runoff Calculations (Vf-post)

A	2 year/24 hour storm event	P =	2.35	in
B	Permeable Cover CN	CN =	61	
C	S = (1000/CN) > 10	S =	6.39	in
D	Q = (P-0.25) / (24(P+0.85))	Q =	0.15	in
E	Permeable Cover Area	Area =	13,669	sf
F	$V_{f-post} = Q(1/12)Area$	$V_{f-post} =$	167	cf

W5 Impervious Cover Post-development Runoff Calculations (Vf-post)

A	2 year/24 hour storm event	P =	2.35	in
B	Impervious Cover CN	CN =	98	
C	S = (1000/CN) > 10	S =	0.20	in
D	Q = (P-0.25) / (24(P+0.85))	Q =	2.12	in
E	Permeable Cover Area	Area =	70,551	sf
F	$V_{f-post} = Q(1/12)Area$	$V_{f-post} =$	12,474	cf

Drainage Narrative
 This site was previously used by a lumber company, including storage and retail. The proposed use is for a trucking and logistics company. Phase 1 for the proposed use is to generally utilize the site in its existing condition. Phase 2 will require numerous site improvements including connections to Township Sewer system, wetland fill, storm water management system improvements and landscape improvements. These improvements are generally depicted on the layout plan and the grading plan.

The site currently drains to an onsite wetland that has a 12" outlet connection prior to discharging to a very large wetland system that eventually connects to Green and Horseshoe Lake (drain more than 1500 feet away).

The proposed storm water management system improvements for phase 2 include providing detention for the impervious area as shown in the included calculations. Due to site constraints including existing building parking elevations, sandy soils, proximity to wetlands and high ground water conditions, a finished elevation of less than one foot may be required.

W6 Permeable Cover Post-development 100-year Storm Runoff Calculations (V100-post)

A	100 year storm event	P =	5.11	in
B	Permeable Cover CN	CN =	61	
C	S = (1000/CN) > 10	S =	6.39	in
D	Q = (P-0.25) / (24(P+0.85))	Q =	1.44	in
E	Permeable Cover Area	Area =	13,669	sf
F	$V_{100-post} = Q(1/12)Area$	$V_{100-post} =$	1,564	cf

W7 Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-post)

A	100 year storm event	P =	5.11	in
B	Permeable Cover CN	CN =	98	
C	S = (1000/CN) > 10	S =	0.20	in
D	Q = (P-0.25) / (24(P+0.85))	Q =	4.87	in
E	Permeable Cover Area	Area =	70,551	sf
F	$V_{100-post} = Q(1/12)Area$	$V_{100-post} =$	28,650	cf

W8 Determine Time of Concentration (Tc) (hr)

User specified, assume 20 minutes
 Total Time of Concentration (hr) = 0.33

W9 Runoff Summary & Detention Requirement

A	Runoff Summary from Previous Worksheet	$V_f =$	5,993	cf
		$V_{f-pre} =$	696	cf
		$V_{f-post} =$	167	cf
		$V_{100-pre} =$	12,474	cf
		$V_{100-post} =$	1,564	cf
		$V_{100-post} =$	28,650	cf
Total BF Volume ($V_{BF-post}$)				12,541
Total 100-yr Volume (V_{100})				30,213

W10 Saturated Method Runoff Volume Calculations

A	$Q_p = 238.6 (L_s)^{0.82}$	587.37	cf/min ²
B	Total Site Area	1,919,610.66	ac
C	$Q_{100} = Q_{100-pre} + Q_{100-post}$	6.31	in
D	Peak Flow (PF) = ($Q_p / Q_{100} \times A$) / 640	11,114	cf/s
E	Delta = PF - 0.15A	10,826	cf/s
F	$V_{100} = (Delta / PF) \times V_{100-pre}$	29,430	cf

Infiltration Summary

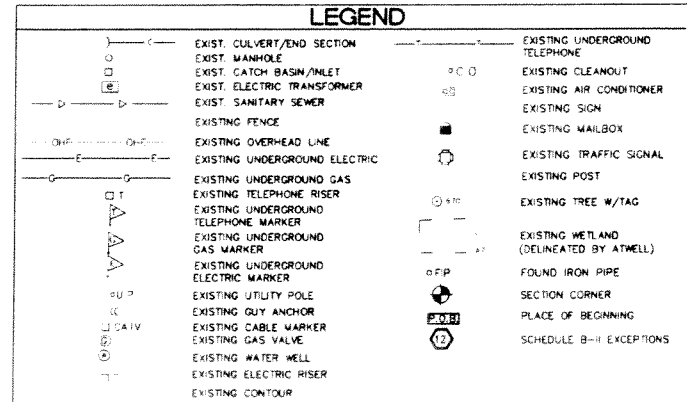
Total Infiltration Provided	0	cf
20% Detention Penalty	28,650	cf

Detention Summary

Total Detention Required:	29,430	cf
Total Detention Provided (With Penalty):	15,316	cf
Provided Infiltration Applied to Detention Requirement:	0	cf
Difference:	(13,516)	cf
Provided Detention Volume:	42,000	cf
Difference:	6,714	cf

Elevation	Area (sf)	Depth (ft)	Incremental Volume (cf)	Cumulative Volume (cf)
917.0	15,406	0	0	0
918.0	20,487	1.0	17,748	17,748
919.0	28,078	1.0	24,263	42,011

$V_{100} = 917.34$
 $V_{100-pre} = 918.48$
 $V_{100-post} = 918.72$



811
 Know what's below.
 Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PREPARE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE CONSIDERED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES OR OF ANY OTHER PERSONS.

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SECTION 21
 TOWN 1 SOUTH, RANGE 6 EAST
 NORTHFIELD TOWNSHIP
 WASHTENAW COUNTY, MICHIGAN

CLIENT: STEEL TRUCKING, INC.
 STEEL TRUCKING
 CONDITIONAL USE PLAN
 GRADING/UTILITY PLAN

DATE: MAY 27, 2015

REVISIONS

SCALE: 0 25 50
 1" = 50 FEET

DR. KMK CH. WDE
 P.W. L. DROUILLARD
 BOOK ---
 JOB 15000502
 SHEET NO. 04