

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
June 19, 2017
6:30 p.m.

AGENDA

Call to Order:

Pledge of Allegiance:

Call to the Public (Public comment will be limited to two minutes per person)*:

Approval of Consent Agenda:

1. Payment of Bills.

2. Request to Approve Minutes: June 5, 2017

3. Request for approval to file a Claim of Lien as well as levy Special Assessment, X0111 Demo/Maint., in the amount of \$5,435.00 to the 2017 Summer Tax Roll for expenses paid for Parcel #4711-03-401-051, property address 692 Red Oaks as requested by the Township Treasurer.

Approval of Regular Agenda:

4. Request to approve the 2017 Partnership with the Economic Development Council of Livingston County in the amount of \$22,600.

5. Consideration of a request for approval of special land use, environmental impact assessment and site plan for a proposed 30,000 sq.ft. warehouse/storage addition to the existing A & F Wood Products located at 5665 Sterling Drive, Howell. The request is petitioned by Schonscheck Inc.

A. Disposition of Special Use

B. Disposition Environmental Impact Assessment (5-1-17)

C. Disposition of Site Plan (5-24-17)

6. Request to extend Oak Pointe sanitary service to 5033 Chilson Road.

7. Discussion regarding interest charged on Fund #264 Special Assessment Revolving Fund.

8. Request to enter into closed session to discuss pending litigation pursuant to MCL 15.268 § 8 (e).

Correspondence

Member Discussion

Adjournment

*Citizen's Comments- In addition to providing the public with an opportunity to address the Township Board at the beginning of the meeting, opportunity to comment on individual agenda items may be offered by the Chairman as they are presented.

CHECK REGISTERS FOR TOWNSHIP BOARD MEETING

DATE: June 19, 2017

TOWNSHIP GENERAL EXPENSES: Thru June 19, 2017	\$202,340.31
June 16, 2017 Bi Weekly Payroll	\$64,975.79
OPERATING EXPENSES: Thru June 19, 2017	\$367,887.91
TOTAL:	\$635,204.01

3

For Check Dates 06/16/2017 to 06/16/2017

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
06/16/2017	FNBCK	EFT118	INTERNAL REVENUE SERVICE	150.60	150.60	0.00	Cleared
06/16/2017	FNBCK	EFT119	FLEX SPENDING (TASC)	1,159.13	1,159.13	0.00	Open
06/16/2017	FNBCK	EFT120	INTERNAL REVENUE SERVICE	23,415.95	23,415.95	0.00	Open
06/16/2017	FNBCK	EFT121	PRINCIPAL FINANCIAL	2,875.00	2,875.00	0.00	Open
06/16/2017	FNBCK	EFT122	PRINCIPAL FINANCIAL	1,426.63	1,426.63	0.00	Open
Totals:				Number of Checks: 005	29,027.31	29,027.31	0.00
Total Physical Checks:						Dir. Dep.	
Total Check Stubs:				5		<u>64,975.79</u>	

\$ 94,003.10

Check Date	Check	Vendor Name	Amount
Bank FNBACK CHECKING ACCOUNT			
06/01/2017	33716	DTE ENERGY Void Reason: PAID FROM WRONG ACCOUNT	248.34 V
06/01/2017	33717	GFL ENVIRONMENTAL USA INC.	79,313.85
06/01/2017	33718	LAKESIDE SERVICE COMPANY, INC	575.77
06/01/2017	33719	NETWORK SERVICES GROUP, L.L.C.	50.00
06/06/2017	33720	CONTINENTAL LINEN SERVICE	113.43
06/06/2017	33721	DTE ENERGY Void Reason: DIFFERENT ADDRESS FOR ONE BILL	1,176.19 V
06/06/2017	33722	GORDON BUILDERS Void Reason: MADE OUT TO WRONG VENDOR	148.88 V
06/06/2017	33723	TAMMY LINDBERG	200.62
06/06/2017	33724	DTE ENERGY	1,030.89
06/06/2017	33725	DTE ENERGY	145.30
06/06/2017	33726	GORDON FOOD SERVICE	148.88
06/07/2017	33727	MERS - MICH. EMPLOYEES' RETIRE	1,716.02
06/07/2017	33728	ROTARY CLUB OF BRIGHTON	574.00
06/12/2017	33729	AMERICAN AQUA	268.78
06/12/2017	33730	BRIGHTON ANALYTICAL, L.L.C.	62.00
06/12/2017	33731	BUSINESS IMAGING GROUP	131.78
06/12/2017	33732	COMCAST	323.10
06/12/2017	33733	CONSUMERS ENERGY	65.29
06/12/2017	33734	DTE ENERGY	131.89
06/12/2017	33735	GFL ENVIRONMENTAL USA INC.	79,313.85
06/13/2017	33736	BLUE CROSS & BLUE SHIELD OF MI	32,493.43
06/13/2017	33737	LSL PLANNING, INC.	5,477.43
06/13/2017	33738	WELLNESS IQ	164.00
06/13/2017	33739	MICHIGAN.COM PRESS & ARGUS	40.00

FNBACK TOTALS:

Total of 24 Checks:	203,913.72
Less 3 Void Checks:	1,573.41
Total of 21 Disbursements:	<u>202,340.31</u>

Check Date	Check	Vendor Name	Amount
Bank 503FN DPW-UTILITIES #503			
5/02/2017	4002	STATE OF MICHIGAN	95.00
5/07/2017	4003	PAETEC	33.01
5/07/2017	4004	PORT CITY COMMUNICATIONS, INC.	325.55
5/08/2017	4005	MASTERY TECHNOLOGIES, INC.	1,631.40
5/09/2017	4006	LOWE'S	2,473.02
5/09/2017	4007	TRACTOR SUPPLY CO.	213.29
5/12/2017	4008	GENOA TOWNSHIP	350,000.00
5/13/2017	4009	POSTMASTER	177.21
5/14/2017	4010	WEX BANK	2,779.45

503FN TOTALS:
 Total of 9 Checks: 357,727.93
 Less 0 Void Checks: 0.00
 Total of 9 Disbursements: 357,727.93

Check Date	Check	Vendor Name	Amount
Bank 592FN OAK POINTE OPERATING FUND #592			
5/05/2017	3965	DTE ENERGY	98.48
5/05/2017	3966	DTE ENERGY	2,237.01
5/07/2017	3967	CONSUMERS ENERGY	218.57
5/07/2017	3968	DTE ENERGY	302.76
5/08/2017	3969	DTE ENERGY	2,013.94

592FN TOTALS:
 Total of 5 Checks: 4,870.76
 Less 0 Void Checks: 0.00
 Total of 5 Disbursements: 4,870.76

Check Date	Check	Vendor Name	Amount
Bank 593FN LAKE EDGEWOOD OPERATING FUND #593			
6/02/2017	3176	BRIGHTON ANALYTICAL, L.L.C.	603.00
6/02/2017	3177	DTE ENERGY	4,487.70
6/07/2017	3178	DTE ENERGY	62.03
6/08/2017	3179	DTE ENERGY	48.64
6/13/2017	3180	BRIGHTON ANALYTICAL, L.L.C.	67.00
6/13/2017	3181	CONSUMERS ENERGY	20.85

593FN TOTALS:
 Total of 6 Checks: 5,289.22
 Less 0 Void Checks: 0.00
 Total of 6 Disbursements: 5,289.22

GENOA CHARTER TOWNSHIP BOARD
Regular Meeting
June 5, 2017

MINUTES

Supervisor Rogers called the regular meeting of the Genoa Charter Township Board to order at 6:30 p.m., with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Robin Hunt, Jim Mortensen, Terry Croft, Diana Lowe and Jean Ledford. Also present were Township Manager, Michael Archinal; Township Attorney, Joe Seward; and four persons in the audience.

A Call to the Public was made with the following response: Jim Hamade – I have lived in Oak Park for many years and now plan to build a home on Turning Leaf Drive. I would ask the board to consider allowing privacy fences that are treated wood instead of just vinyl. This policy should be allowed all along Grand River where homes abut businesses.

Approval of Consent Agenda:

Moved by Ledford and supported by Lowe to approve all items listed under the Consent Agenda as requested. The motion carried unanimously.

1. Payment of Bills.

2. Request to Approve Minutes: May 15, 2017

3. Request for approval of a 2017 application for fireworks by Calvin Heckman for a proposed display date of July 8, 2017 at 4127 Clifford Road, Brighton.

4. Request for approval of a 2017 application for fireworks by Calvin Heckman for a proposed display date of July 15, 2017 at Mt. Brighton, 4141 Bauer Road Brighton, MI.

5. Request for approval of a 2017 application for fireworks by Calvin Heckman for a proposed display date of July 3, 2017 [alternate July 4, 2017] at the Oak Pointe Country Club.

6. Request for approval of a 2017 application for fireworks by Mark Popovich of Wolverine Fireworks for a proposed display date of July 1, 2017 on Lake Chemung.

7. Request for approval of a proposal from CEI to make roof repairs to the Township Hall and Brighton Area Fire Authority Station 34 in an amount not to exceed \$2,950.

Approval of Regular Agenda:

Moved by Hunt and supported by Ledford to approve for action all items listed under the Regular Agenda as requested. The motion carried unanimously.

8. Request for approval of Resolution No. 5 [confirming the special assessment roll] for the Lake Chemung Aquatic Weed Control Project Winter 2017.

Moved by Ledford and supported by Skolarus to approve Resolution No. 5 as requested. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

9. Request for approval of the 4th Amended Articles of Incorporation for the Howell Area Parks and Recreation Authority.

Moved by Lowe and supported by Croft to approve the Amended Articles of Incorporation for the Howell Area Parks and Recreation Authority as requested, reducing the annual cost to the township from \$103,225 to \$100,000.00 and changing all references to the Township as “Genoa Charter Township” opposed to the “Charter Township of Genoa”. The motion carried unanimously.

10. Request for approval of an amendment to Fund 271 [Building-Reserve/Cemetery] to allow for cemetery maintenance at a cost of \$5,500.00, as requested by Skolarus.

Moved by Hunt and supported by Skolarus to approve the Amendment to Fund 271 as requested. The motion carried unanimously.

Member Discussion:

Croft would ask that the township manager provide an update when budget projects are completed that have been specifically approved by the board for large purchases.

Rogers advised the board that the township was complemented by the Livingston County Road Commission at a recent gathering of the Michigan Townships Association for their dedication to the upgrading of roads within the township and their financial support of local subdivisions.

The regular meeting of the board was adjourned at 7:00 p.m.



Paulette A. Skolarus, Clerk
Genoa Charter Township

CLAIM OF LIEN

Notice is given that on April 6, 2016, Genoa Township found Ms. Marilyn McKiddie, owner of the following legal description:

SEC 3 T2N R5E LOT 51 RED OAKS OF CHEMUNG NO 3 INC, BEG AT THE NE COR OF SAID LOT 52, TH NWLY 12.5 FT ALONG THE ARC OF A CURVE, CHORD BEARING, N 86*09'43"W 12.5 FT, TH S 11*29'44"W 163.03 FT, TH S 88*24'E ALONG THE LINE OF SAID LOT 52, 20 FT TO THE SE COR OF SAID LOT 52, TH N 8*53'34"E ALONG THE E LINE OF SAID LOT 52, 161.4 FT TO POB commonly known as 692 Red Oaks, to be in violation of Genoa Township Unsafe Structure Ordinance 02-16-93. Genoa Township expended \$5,435.00 to demolish/make building safe. More than 30 days have elapsed from when notice of the amount of the cost to demolish/make safe the property was provided to Ms. Marilyn McKiddie by mailing the notice to Ms. Marilyn McKiddie, 6415 Morse Detroit, MI 48210.

There is due and owing to Genoa Township the \$5,435.00 for demolishing/making the building safe. The amount due will be levied on the 2017 Summer Tax which will be levied on July 1, 2017. The amount must be paid in full prior to sale of property.

Genoa Township

By /s/ _____
Robin Lynn Hunt
Genoa Township Treasurer

Date: _____

STATE OF MICHIGAN)
LIVINGSTON COUNTY)

signed and sworn to before me in Livingston County, Michigan on _____, by Robin Lynn Hunt, Treasurer of Genoa Township

/s/ _____
Amy Danielle Ruthig
Notary public, State of Michigan, County of Livingston.
My commission expires 03/29/19

**Drafted by and when recorded return to:
Robin Lynn Hunt
2911 Dorr Road
Brighton, MI 48116**



A Limited Liability Company
MichiganDemolition@Comcast.Net
 4788 Cornell Okemos MI 48864
 Brian VanOrder

Quote Date: 12/1/16

Sharon Stone
 Zoning Officer

Genoa Charter Township
 2911 Dorr Road, Brighton, Michigan 48116
 Phone: (810) 227-5225, Fax: (810) 227-3420
 E-mail: Sharon@genoa.org, Url: www.genoa.org

Job: Demolition of mobile home and shed 692 Red Oak Howell MI	Price:
Demo and removal of house and shed. No garage. If Livingston county permits are to be obtained add: No demo permit fee with Genoa twp.	\$4,500 \$500

THANK YOU!

Adams Well Repairs, Inc.

(517) 545-7517
 5893 Sterling Drive
 Howell, MI 48843

Invoice

Date	Invoice #
2/16/2017	3365

Bill To
GENOA TOWNSHIP 2911 DORR RD BRIGHTON MI 48116

Job Address
692 RED OAKS DR HOWELL MI 48843

P.O. No.	Terms	Due Date	Job Address	
MAT		2/16/2017		
Qty	Item	Description	Price	Amount
1	ABANDON	2" WELL ABANDONMENT	300.00	300.00
1	HOLE PLUG	1 BAG OF HOLE PLUG TO ABANDON WELL	35.00	35.00
THANK YOU FOR YOUR BUSINESS. 1 1/2% INTEREST PER MONTH, 18% PER YEAR, WILL BE CHARGED ON ACCOUNTS 30 DAYS PAST DUE.			Total	\$335.00



PO Box 501 Howell, MI. 48844-0501
 517-548-6653 info@coopersturf.com

Invoice

Invoice No.	Date
14198	06/30/16

Bill To:
GENOA TOWNSHIP 2911 DORR ROAD BRIGHTON, MI. 48116

Terms	P.O. Number	Due Date
due upon receipt		06/30/16

Service	Item	Quantity	Description	Rate	Amount
	LC100		LAWN CARE AT 692 RED OAK PER SHARON STONE-FRANCIS	100.00	100.00

MAILED
 32881 7-19-2016
 100.00

OK
 [Signature]
 7/6/16

~~PAID~~

ENTERED JUL 13 2016

101-265-775-600

Cash or checks preferred. We can accept credit cards with a 3.75% fee	Total	\$100.00
	Payments/Credits	\$0.00
	Balance Due	\$100.00

GENOA CHARTER TOWNSHIP BOARD
November 7, 2016
Regular Meeting

MINUTES

Supervisor McCririe called the regular meeting of the board to order at 6:30 p.m. The Pledge of Allegiance was then said. The following board members were present constituting a quorum for the transaction of business: Gary McCririe, Paulette Skolarus, Robin Hunt, Linda Rowell, Jim Mortensen, Todd Smith and Jean Ledford. Also present were: Township Manager Michael Archinal, Township Attorney Joe Seward, and approximately 15 persons in the audience.

A Call to the Public was made with the following response: Bob Hutchison addressed the board with gratitude. He remarked how great the pavement of Grand Oaks turned out; he loves it and especially the company who was hired to do the work. He also expressed his thanks to Gary McCririe for his service to the township, adding that Gary was both a gracious and humble person and that the new supervisor has big shoes to fill.

Doug Brown addressed the board to express his thanks to Linda Rowell, Todd Smith, and Gary McCririe for their service. He added that everything they have done is great and that they have worked well and constructively together for the benefit of the Township.

Approval of Consent Agenda:

Moved by Smith and supported by Mortensen to approve all items under the Consent Agenda as requested. The motion carried unanimously.

- 1. Payment of Bills.**
- 2. Request to Approve Minutes: October 17, 2016**
- 3. Request to clarify a discrepancy between the rules and regulations and the application related to the sale of cemetery parcels in Chilson Hills by amending the rules and regulations to state that cremains parcels be sold at \$300 in accordance with recent sales.**
- 4. Request to approve the Fiscal Year 2017 Howell Area Parks and Recreation Authority (HAPRA) budget.**
- 5. Request to approve the Fiscal Year 2017 Proposed Budget Amendment to DPW Fund 501 as recommended by the Utility Director.**

Approval of Regular Agenda:

Moved by Rowell and supported by Mortenson to approve for action all items listed under the regular agenda as requested. The motion carried unanimously.

GENOA CHARTER TOWNSHIP BOARD – Regular Meeting – November 7, 2016

6. Request from April Gago, M.D. of the Gago Center for Fertility/Gago IVF to consider an ordinance to prohibit open burning near medical practices.

Dr. Gago addressed the board with concerns over the burning of yard debris near and around her office as it adversely affects sensitive tissues and reproductive methods. McCririe expressed his sympathy over the matter and said he will have conversations with those persons responsible. He asked that the Township Manager address the concerns with those involved. No formal action was taken by the board

7. Request from Dewey E. and Pamela H. Thomas to amend a consent agreement to allow use of 5033 Chilson Road, Parcel ID 4711-33-200-019, as a floral design and art studio.

Moved by Smith and supported by Hunt to approve the amendment to the consent agreement with attorney review to allow a floral and design studio within the footprint of the existing building. The motion carried unanimously.

8. Request from the Ordinance Officer to consider removal of a dangerous building at 692 Red Oaks.

The owner of the property, Marilyn McKiddie, addressed the board. She stated that she was very unhappy and angry that she was required to be present this evening at the meeting. She stated that her family has been living in the home off and on for years and that she is currently paying utilities at the home. She said that she never received any notices and that she will get an attorney to fight this issue.

A call to the public was made with the following response: Wendy Robertson – I have lived near this property for more than 14 years and there has never been anyone living in that home. I have neighbors who will testify to that same thing.

Moved by Smith and supported by Skolarus to accept the recommendation by Township Ordinance Officer Sharon Stone to move ahead with the demolition with the owner to reimburse the Township for all expenses related to the removal of the structure. The motion carried unanimously.

9. Presentation from Kim Lane, Human Resources Director, regarding 2017 employee benefits.

Moved by Skolarus and supported by Rowell to approve the recommendation by Kim Lane to change insurers for short and long term disability from Reliance to Guardian – decreasing short term disability to 13 weeks and increasing long term disability to immediately follow, to implement a Township Wellness plan with incentives, and to increase the employee insurance contribution to 10%. The motion carried unanimously.

10. Request for review and approval of MHOG salary range adjustments as requested by Dr. Greg Tatara.

Moved by Smith and supported by Rowell to approve the pay-scale increase as requested by Dr. Tatara. The motion carried unanimously.

GENOA CHARTER TOWNSHIP BOARD – Regular Meeting – November 7, 2016

11. Request to approve resolutions honoring the service of Township Board members Gary McCririe, Linda Rowell and Todd Smith.

Township Manager Archinal presented plaques to Gary McCririe, Linda Rowell, and Todd Smith honoring them for their many years of service to the township on behalf of the Genoa Township Board. He thanked them for their dedication and professionalism. Board member expressed their sincere appreciation to the three departing members and sorrow at their leaving.

The regular meeting of the Genoa Township Board was adjourned at 7:50 p.m.

Tara Brown, Deputy Clerk
Genoa Charter Township

Paulette A. Skolarus, Clerk
Genoa Charter Township

Gary McCririe, Supervisor
Genoa Charter Township

GENOA CHARTER TOWNSHIP BOARD

January 3, 2017
Regular Meeting

MINUTES

Supervisor Rogers called the regular meeting of the Genoa Charter Township Board to order at 6:30 p.m., with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Jim Mortensen, Terry Croft, Diana Lowe and Jean Ledford. Also present were Township Manager, Michael Archinal; Township Attorney, Joe Seward; and two persons in the audience.

A Call to the Public was made with no response.

Approval of Consent Agenda:

Moved by Mortensen and supported by Ledford to approve all items listed under the regular agenda as requested. The motion carried unanimously.

1. Payment of Bills.

2. Request to Approve Minutes: December 5, 2016

Approval of Regular Agenda:

Moved by Ledford and supported by Lowe to approve for action all items listed under the regular agenda as requested. The motion carried unanimously.

3. Request for approval of a Performance Resolution for Government Agencies required for work permits in MDOT right-of-way.

Moved by Skolarus and supported by Mortensen to approve the Resolution No. 160103 as requested. The motion carried by roll call vote as follows: Ledford, Croft, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – Hunt.

4. Request for approval of a demolition contract for 692 Red Oaks in the amount of \$5,000.

Moved by Mortensen and supported by Skolarus to approve the demolition as requested. The motion carried unanimously.

5. Request to enter into closed session to discuss pending litigation pursuant to MCL 15.268 § 8 (c).

Moved by Jean Ledford and supported by Lowe to move into closed session at 6:35 p.m. The motion carried by roll call vote as follows: Ledford, Croft, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – Hunt.

The regular meeting of the board was reopened at 7:05 p.m. and adjourned.

Paulette A. Skolarus, Clerk
Genoa Charter Township Board

CLAIM OF LIEN

Notice is given that on April 6, 2016, Genoa Township found Ms. Marilyn McKiddie, owner of the following legal description:

SEC 3 T2N R5E LOT 51 RED OAKS OF CHEMUNG NO 3 INC, BEG AT THE NE COR OF SAID LOT 52, TH NWLY 12.5 FT ALONG THE ARC OF A CURVE, CHORD BEARING, N 86*09'43"W 12.5 FT, TH S 11*29'44"W 163.03 FT, TH S 88*24'E ALONG THE LINE OF SAID LOT 52, 20 FT TO THE SE COR OF SAID LOT 52, TH N 8*53'34"E ALONG THE E LINE OF SAID LOT 52, 161.4 FT TO POB commonly known as 692 Red Oaks, to be in violation of Genoa Township Unsafe Structure Ordinance 02-16-93. Genoa Township expended \$5,435.00 to demolish/make building safe. More than 30 days have elapsed from when notice of the amount of the cost to demolish/make safe the property was provided to Ms. Marilyn McKiddie by mailing the notice to Ms. Marilyn McKiddie, 6415 Morse Detroit, MI 48210.

There is due and owing to Genoa Township the \$5,435.00 for demolishing/making the building safe. The amount due will be levied on the 2017 Summer Tax which will be levied on July 1, 2017. The amount must be paid in full prior to sale of property.

Genoa Township

By /s/ _____
Robin Lynn Hunt
Genoa Township Treasurer

Date: _____

STATE OF MICHIGAN)
LIVINGSTON COUNTY)

signed and sworn to before me in Livingston County, Michigan on _____, by Robin Lynn Hunt, Treasurer of Genoa Township

/s/ _____
Amy Danielle Ruthig
Notary public, State of Michigan, County of Livingston.
My commission expires 03/29/19

Drafted by and when recorded return to:
Robin Lynn Hunt
2911 Dorr Road
Brighton, MI 48116



MICHIGAN DEMOLITION & EXCAVATION

517-881-9293

A Limited Liability Company

MichiganDemolition@Comcast.Net

4788 Cornell Okemos MI 48864

Brian VanOrder

Quote Date: 12/1/16

Sharon Stone
Zoning Officer

Genoa Charter Township
2911 Dorr Road, Brighton, Michigan 48116
Phone: (810) 227-5225, Fax: (810) 227-3420
E-mail: Sharon@genoa.org, Url: www.genoa.org

Job: Demolition of mobile home and shed 692 Red Oak Howell MI	Price:
Demo and removal of house and shed. No garage. If Livingston county permits are to be obtained add: No demo permit fee with Genoa twp.	\$4,500 \$500

THANK YOU!

Adams Well Repairs, Inc.

(517) 545-7517
 5893 Sterling Drive
 Howell, MI 48843

Invoice

Date	Invoice #
2/16/2017	3365

Bill To
GENOA TOWNSHIP 2911 DORR RD BRIGHTON MI 48116

Job Address
692 RED OAKS DR HOWELL MI 48843

P.O. No.	Terms	Due Date	Job Address	
MAT		2/16/2017		
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THANK YOU FOR YOUR BUSINESS. 1 1/2% INTEREST PER MONTH, 18% PER YEAR, WILL BE CHARGED ON ACCOUNTS 30 DAYS PAST DUE.			Total	\$335.00



PO Box 501 Howell, MI. 48844-0501
 517-548-6653 info@coopersturf.com

Invoice

Invoice No.	Date
14198	06/30/16

Bill To
GENOA TOWNSHIP 2911 DORR ROAD BRIGHTON, MI. 48116

Terms	P.O. Number	Due Date
due upon receipt		06/30/16

Serviced	Item	Quantity	Description	Rate	Amount
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MAILED

32881 7-19-2016

100.00

101-265-775-000

OK

7/6/16

~~ENTERED~~

ENTERED JUL 13 2016

Cash or checks preferred. We can accept credit cards with a 3.75% fee	Total	\$100.00
	Payments/Credits	\$0.00
	Balance Due	\$100.00

GENOA CHARTER TOWNSHIP BOARD
November 7, 2016
Regular Meeting

MINUTES

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A Call to the Public was made with the following response: Bob Hutchison addressed the board with gratitude. He remarked how great the pavement of Grand Oaks turned out; he loves it and especially the company who was hired to do the work. He also expressed his thanks to Gary McCririe for his service to the township, adding that Gary was both a gracious and humble person and that the new supervisor has big shoes to fill.

Doug Brown addressed the board to express his thanks to Linda Rowell, Todd Smith, and Gary McCririe for their service. He added that everything they have done is great and that they have worked well and constructively together for the benefit of the Township.

Approval of Consent Agenda:

Moved by Smith and supported by Mortensen to approve all items under the Consent Agenda as requested. The motion carried unanimously.

1. Payment of Bills.

2. Request to Approve Minutes: October 17, 2016

3. Request to clarify a discrepancy between the rules and regulations and the application related to the sale of cemetery parcels in Chilson Hills by amending the rules and regulations to state that cremains parcels be sold at \$300 in accordance with recent sales.

4. Request to approve the Fiscal Year 2017 Howell Area Parks and Recreation Authority (HAPRA) budget.

5. Request to approve the Fiscal Year 2017 Proposed Budget Amendment to DPW Fund 501 as recommended by the Utility Director.

Approval of Regular Agenda:

Moved by Rowell and supported by Mortenson to approve for action all items listed under the regular agenda as requested. The motion carried unanimously.

6. Request from April Gago, M.D. of the Gago Center for Fertility/Gago IVF to consider an ordinance to prohibit open burning near medical practices.

Dr. Gago addressed the board with concerns over the burning of yard debris near and around her office as it adversely affects sensitive tissues and reproductive methods. McCririe expressed his sympathy over the matter and said he will have conversations with those persons responsible. He asked that the Township Manager address the concerns with those involved. No formal action was taken by the board

7. Request from Dewey E. and Pamela H. Thomas to amend a consent agreement to allow use of 5033 Chilson Road, Parcel ID 4711-33-200-019, as a floral design and art studio.

Moved by Smith and supported by Hunt to approve the amendment to the consent agreement with attorney review to allow a floral and design studio within the footprint of the existing building. The motion carried unanimously.

8. Request from the Ordinance Officer to consider removal of a dangerous building at 692 Red Oaks.

The owner of the property, Marilyn McKiddie, addressed the board. She stated that she was very unhappy and angry that she was required to be present this evening at the meeting. She stated that her family has been living in the home off and on for years and that she is currently paying utilities at the home. She said that she never received any notices and that she will get an attorney to fight this issue.

A call to the public was made with the following response: Wendy Robertson – I have lived near this property for more than 14 years and there has never been anyone living in that home. I have neighbors who will testify to that same thing.

Moved by Smith and supported by Skolarus to accept the recommendation by Township Ordinance Officer Sharon Stone to move ahead with the demolition with the owner to reimburse the Township for all expenses related to the removal of the structure. The motion carried unanimously.

9. Presentation from Kim Lane, Human Resources Director, regarding 2017 employee benefits.

Moved by Skolarus and supported by Rowell to approve the recommendation by Kim Lane to change insurers for short and long term disability from Reliance to Guardian – decreasing short term disability to 13 weeks and increasing long term disability to immediately follow, to implement a Township Wellness plan with incentives, and to increase the employee insurance contribution to 10%. The motion carried unanimously.

10. Request for review and approval of MHOG salary range adjustments as requested by Dr. Greg Tatara.

Moved by Smith and supported by Rowell to approve the pay-scale increase as requested by Dr. Tatara. The motion carried unanimously.

GENOA CHARTER TOWNSHIP BOARD – Regular Meeting – November 7, 2016

11. Request to approve resolutions honoring the service of Township Board members Gary McCririe, Linda Rowell and Todd Smith.

Township Manager Archinal presented plaques to Gary McCririe, Linda Rowell, and Todd Smith honoring them for their many years of service to the township on behalf of the Genoa Township Board. He thanked them for their dedication and professionalism. Board member expressed their sincere appreciation to the three departing members and sorrow at their leaving.

The regular meeting of the Genoa Township Board was adjourned at 7:50 p.m.

Tara Brown, Deputy Clerk
Genoa Charter Township

Paulette A. Skolarus, Clerk
Genoa Charter Township

Gary McCririe, Supervisor
Genoa Charter Township

GENOA CHARTER TOWNSHIP BOARD

January 3, 2017
Regular Meeting

MINUTES

Supervisor Rogers called the regular meeting of the Genoa Charter Township Board to order at 6:30 p.m., with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Jim Mortensen, Terry Croft, Diana Lowe and Jean Ledford. Also present were Township Manager, Michael Archinal; Township Attorney, Joe Seward; and two persons in the audience.

A Call to the Public was made with no response.

Approval of Consent Agenda:

Moved by Mortensen and supported by Ledford to approve all items listed under the regular agenda as requested. The motion carried unanimously.

1. Payment of Bills.

2. Request to Approve Minutes: December 5, 2016

Approval of Regular Agenda:

Moved by Ledford and supported by Lowe to approve for action all items listed under the regular agenda as requested. The motion carried unanimously.

3. Request for approval of a Performance Resolution for Government Agencies required for work permits in MDOT right-of-way.

Moved by Skolarus and supported by Mortensen to approve the Resolution No. 160103 as requested. The motion carried by roll call vote as follows: Ledford, Croft, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – Hunt.

4. Request for approval of a demolition contract for 692 Red Oaks in the amount of \$5,000.

Moved by Mortensen and supported by Skolarus to approve the demolition as requested. The motion carried unanimously.

5. Request to enter into closed session to discuss pending litigation pursuant to MCL 15.268 § 8 (e).

Moved by Jean Ledford and supported by Lowe to move into closed session at 6:35 p.m. The motion carried by roll call vote as follows: Ledford, Croft, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – Hunt.

The regular meeting of the board was reopened at 7:05 p.m. and adjourned.

Paulette A. Skolarus, Clerk
Genoa Charter Township Board



**Economic Development Council of
Livingston County**

218 E. Grand River, Brighton, MI 48116
Phone: (517) 586-0822

INVOICE

Bill To:

Genoa Charter Township
2911 Dorr Road
Brighton, MI 48116

Invoice Number: 9659GT-170530

Date: May 30, 2017

Due Date: June 30, 2017

DESCRIPTION	AMOUNT
2017 Partnership - Contract Services	\$22,600.00



2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

MEMORANDUM

TO: Honorable Board of Trustees

FROM: Kelly VanMarter, Assistant Township Manager/Community Development Director 

DATE: June 15, 2017

RE: A&F Wood Products Addition

MANAGER'S REVIEW: 

Attached please find the case file requesting approval of a 30,000-square foot addition to the existing A & F Wood Products industrial building including redesigned parking lot and other typical site plan elements. The proposed building addition is intended for warehousing/storage, which is permitted by right in the IND; however, given that the total building area proposed (66,032 square feet) exceeds 40,000 square feet, special land use approval is required.

Procedurally, the Planning Commission is to make a recommendation to the Township Board on the special land use, site plan and impact assessment following a public hearing. The Board then has final approval authority over the project.

At the June 12, 2017 Planning Commission meeting the Commission recommended approval of the special use application, site plan and impact assessment. In an effort to move this item forward without being delayed by the lack of a first Board meeting in July I have authorized the items that were approved by the Planning Commission to be used for review by the Township Board. As a result, the motions below are based on the action taken by the Planning Commission.

There was discussion at the Planning Commission meeting about eliminating the secondary access driveway that was requested by the Fire Department and you will see that contained below. In addition to the Planning Commission motions, I have suggested a minor additions for the special use and site plan and those items are shown underlined for your consideration. Based on the above, please consider the following action:

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal

June 15, 2017

A & F Wood Products Addition

Page 2 of 3

Moved by _____, Supported by _____ to approve the Special Use Application based upon consistency with the standards of section 19.03 of the Zoning Ordinance with the following conditions:

1. The existing vegetation is acceptable and no new buffer zone plantings are required.
2. The building materials are acceptable as it is the same material as the existing building and not visible from the road.
3. The applicant shall comply with all requirements of the Brighton Area Fire Authority; however, based on the theft at Wonderland Marine, the fact that there seems to be ample circulation on the property and there will be additional fire suppression on the entire property, the Township requests that the Brighton Area Fire Authority reconsider their requirement for a second access point.

Moved by _____, Supported by _____ to approve the Environmental Impact Assessment dated 5-1-17 with the following conditions:

1. "Dust control measures shall be used during construction" will be added to Item D.
2. Hazardous Materials are addressed in both Items G&H. One shall be removed.

Moved by _____, Supported by _____ to approve the Site Plan dated 5-24-17 with the following conditions:

1. If the three parcels are consolidated into two, the lot split and access easement(s) will be recorded prior to issuance of a land use permit.
2. The applicant shall comply with all requirements of the Brighton Area Fire Authority; however, based on the theft at Wonderland Marine, the fact that there seems to be ample circulation on the property and there will be additional fire suppression on the entire property, the Township requests that the Brighton Area Fire Authority reconsider their requirement for a second access point.
3. Per the Township Engineer's letter dated June 5, 2017, the applicant shall consult with the Brighton Area Fire Authority to determine the appropriate water main size and configuration per the fire flow chart.
4. Construction Plan review through the MHOOG Utility will be required and utility easements shall be provided prior to issuance of a land use permit.

Should you have any questions concerning this matter, please do not hesitate to contact me.

OPEN PUBLIC HEARING #3... Review of special use application, site plan application, environmental impact assessment and site plan for a proposed 30,000 sq. ft. warehouse/storage addition to the existing A&F Wood Products located at 5665 Sterling Drive, Howell. The request is petitioned by Schonscheck, Inc. (17-06)

Planning Commission disposition of petition:

- A. Recommendation of Special Use Application
- B. Recommendation of Impact Assessment (5-1-17)
- C. Recommendation of Site Plan (5-24-17)

Craig Zokas of Schonscheck, Inc. and Steve Korte of Korich, Inc. were present. They presented the site plan, showing the building and parking lot additions.

Mr. Borden stated that this is a Special Land Use because of the size of the building. It is generally consistent with the special use standards of Section 19.03. He had the following comments.

- The Planning Commission has the authority to approve the building elevations, including materials and colors. While the amount of metal siding as allowed by ordinance, it is consistent with the existing building and the Planning Commission has the discretion to waive or modify this requirement.
- The applicant is requesting that the Planning Commission waive the landscape requirement because of the present of existing vegetation and the nature of the surrounding land uses. Mr. Korte stated that he believes the existing vegetation is more than what is required by the ordinance and more than he would be able to install.

Mr. Borden noted that the site is comprised of three individual parcels and as part of the project the applicant is proposing to reconfigure them into two parcels. The resulting undeveloped triangular-shaped parcel to the northeast does not have street frontage so there should be an access easement shown on the site plan for this property.

Mr. Markstrom stated that the applicant has addressed all of the items from his first review letter.

Commissioner Rauch stated that if future additions are made that bring the building closer to the highway, he would like to see different building materials.

The call to the public was made at 8:59 pm.

Mr. Gary Mitter of Wonderland Marine agrees with the project; however, he believes that adding the access drive as required by the BAFA will cause more theft from his business than he has already experienced.

He does not agree that this road is required. The applicant has a driveway throughout his entire site and has added fire hydrants. A fire truck would not even be able to drive down Gray Road because of the large trees and the curve.

A&F Wood Products has been a great neighbor to him and a great neighbor to the community.

The call to the public was closed at 9:04 pm.

Moved by Commissioner McManus, seconded by Commissioner Grajek, to recommend to the Township Board approval of the Special Use Application for a proposed 30,000 sq. ft. warehouse/storage addition to the existing A&F Wood Products located at 5665 Sterling Drive, Howell with the following conditions:

- The existing vegetation is acceptable and no new plantings are required.
- The building materials are acceptable as it is the same material as the existing building and not visible from the main road.
- The applicant shall comply with all requirements of the Brighton Area Fire Authority; however, based on the theft at Wonderland Marine and the fact that there seems to be ample circulation on the property and there will be additional fire suppression on the entire property, the Planning Commission requests that the Brighton Area Fire Authority reconsider their requirement for a second access point.
- Approval of the Site Plan by the Township Board.

The Planning Commission believes that the project is generally consistent with the special land use standards of Section 19.03 of the Township Ordinance.

The motion carried unanimously.

Moved by Commissioner Figurski, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Impact Assessment dated May 1, 2017 for a proposed 30,000 sq. ft. warehouse/storage addition to the existing A&F Wood Products located at 5665 Sterling Drive, Howell with the following changes:

- “Dust control measures shall be used during construction” will be added to Item D.
- Hazardous Materials are addressed in both Items G&H. One shall be removed.

The motion carried unanimously.

Moved by Commissioner McManus, seconded by Commissioner Grajek, to recommend to the Township Board approval of the Site Plan dated May 24, 2017 for a proposed 30,000 sq. ft. warehouse/storage addition to the existing A&F Wood Products located at 5665 Sterling Drive, Howell with the following conditions:

- If the three parcels are consolidated into two, an access easement will be recorded prior to issuance of a land use permit.
- The applicant shall comply with all requirements of the Brighton Area Fire Authority; however, based on the theft at Wonderland Marine and the fact that there seems to be ample circulation on the property and there will be additional fire suppression on the entire property, the Planning Commission requests that the Brighton Area Fire Authority reconsider their requirement for a second access point.
- Per the Township Engineer’s letter dated June 5, 2017, the applicant shall consult with the Brighton Area Fire Authority to determine the appropriate water main size and configuration per the fire flow chart.



GENOA CHARTER TOWNSHIP Special Land Use Application

This application **must** be accompanied by a site plan review application and the associated submittal requirements. (The Zoning Official may allow a less detailed sketch plan for a change in use.)

APPLICANT NAME & ADDRESS: Schonscheck, Inc. 50555 Pontiac Trail Wixom, MI 48393
Submit a letter of Authorization from Property Owner if application is signed by Acting Agent.

APPLICANT PHONE: (248) 669-8800 EMAIL: craig@schonscheck.com

OWNER NAME & ADDRESS: Korich, Inc.

SITE ADDRESS: 5665 Sterling Drive PARCEL #(s): 4711-15-200-014

OWNER PHONE: (517) 375-2415 EMAIL: steve@afwood.com

Location and brief description of site and surroundings:
Zoned Industrial, Located at the end of Sterling Drive and surrounded by other industrial uses

Proposed Use:
Warehouse for storage of unfinished materials

Describe how your request meets the Zoning Ordinance General Review Standards (section 19.03):

- a. Describe how the use will be compatible and in accordance with the goals, objectives, and policies of the Genoa Township Comprehensive Plan and subarea plans, and will promote the Statement of Purpose of the zoning district in which the use is proposed.

The building addition is an expansion of an existing Industrial (IND) use that has been in Genoa Township and in operation since 1999.

- b. Describe how the use will be designed, constructed, operated, and maintained to be compatible with, and not significantly alter, the existing or intended character of the general vicinity.

As stated above, the building addition is an expansion of an existing Industrial (IND) use that has been in operation since 1999.

The building addition will be similar to the existing architectural materials, colors and features.

- c. How will the use be served adequately by essential public facilities and services such as highways, streets, police and fire protection, drainage structures, water and sewage facilities, refuse disposal and schools?

The building addition will be serviced by existing on-site public utilities.

A fire protection system will be added to the existing building as needed to provide adequate protection of it and the new addition in the event of a fire.

- d. Will the use involve any uses, activities, processes, or materials potentially detrimental to the natural environment, public health, safety, or welfare by reason of excessive production of traffic, noise, vibration, smoke, fumes, odors, glare, or other such nuisance? If so, how will the impacts be mitigated?

The addition of warehouse space will not impact the natural environment, public health, safety, or welfare and will not produce excessive traffic, noise, vibration, smoke, fumes, odors, or glare.

- e. Does the use have specific criteria as listed in the Zoning Ordinance (sections 3.03.02, 7.02.02, & 8.02.02)? If so, describe how the criteria are met.

The use (IND) does not impact section 3.03.02 & 7.02.02.
The proposed use is in compliance with PERMITTED AND SPECIAL LAND USES section 8.02.02

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION ARE TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AGREE TO DESIGN, CONSTRUCT AND OPERATE, AND MAINTAIN THESE PREMISES AND THE BUILDINGS, STRUCTURES, AND FACILITIES WHICH ARE GOVERNED BY THIS PERMIT IN ACCORDANCE WITH THE STATED REQUIREMENTS OF THE GENOA TOWNSHIP ZONING ORDINANCE, AND SUCH ADDITIONAL LIMITS AND SAFEGUARDS AS MAY BE MADE A PART OF THIS PERMIT.

THE UNDERSIGNED Korich, Inc. STATES THAT THEY ARE THE FREE OWNER OF THE PROPERTY OF PROPERTIES DESCRIBED ABOVE AND MAKES APPLICATION FOR THIS SPECIAL LAND USE PERMIT.

BY: Steve Korte Steve Korte

ADDRESS: 5665 Sterling Drive, Howell MI 48843

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

<u>Craig Zokas</u>	of <u>Schonsheck, Inc.</u>	at <u>craig@schonsheck.com</u>
Name	Business Affiliation	Email

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: [Signature] DATE: 5-3-17

PRINT NAME: Craig Zokas PHONE: 248-669-8800



GENOA CHARTER TOWNSHIP
Application for Site Plan Review

TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: Schonscheck, Inc. 50555 Pontiac Trail, Wixom, MI 48393
If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: Korich, Inc.

SITE ADDRESS: 5665 Sterling Drive PARCEL #(s): 4711-15-200-014

APPLICANT PHONE: (248) 669-8800 OWNER PHONE: (517) 375-2415

OWNER EMAIL: steve@afwood.com

LOCATION AND BRIEF DESCRIPTION OF SITE: _____

Zoned Industrial, located at the end of Sterling Drive and surrounded by Industrial uses.

BRIEF STATEMENT OF PROPOSED USE: _____

Warehouse for storage of unfinished materials

THE FOLLOWING BUILDINGS ARE PROPOSED: _____

One (1) 30,000 SF Building Addition

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Craig Zokas - President

ADDRESS: Schonscheck, Inc. 50555 Pontiac Trail, Wixom, MI 48393

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) Craig Zokas of Schonsheck, Inc. at craig@schonsheck.com
Name Business Affiliation E-mail Address

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE:  DATE: 5-3-17
PRINT NAME: Craig Zokas PHONE: 248-669-8800
ADDRESS: Schonsheck, Inc. 50555 Pontiac Trail Wixom, MI 48393

AUTHORIZATION OF REPRESENTATION

To Whom It May Concern:

Please accept this letter as my authorization for SCHONSHECK, INC. to act as my representative regarding matters pertaining to my Proposed Office/Warehouse for A&F Wood Products in Howell, Michigan.

As my representative, SCHONSHECK, INC., a Michigan corporation, is hereby authorized to execute any and all documents necessary on behalf of said company.



Date: 5-1-17

Mr. Steve Korte
Korich, Inc.
5665 Sterling Drive
Howell, MI 48843

May 30, 2017

Planning Commission
 Genoa Township
 2911 Dorr Road
 Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
Subject:	A&F Wood Products – Special Land Use and Site Plan Review #2
Location:	5665 Sterling Drive – terminus of Sterling Drive, west of Dorr Road
Zoning:	IND Industrial District

Dear Commissioners:

At the Township's request, we have reviewed the site plan (dated 5/24/17) proposing an addition to the existing industrial building at 5665 Sterling Drive. The site is located at the terminus of Sterling Drive and backs up to I-96.

We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance.

A. Summary

1. The project is generally consistent with the special use standards of Section 19.03; however, the applicant must address any issues raised by the Township Engineer or Fire Department.
2. The Planning Commission has approval authority over the building elevations, including materials and colors.
3. The amount of metal siding exceeds that allowed by Ordinance; however, the Commission has discretion to waive/modify this requirement when a proposed addition matches the existing building.
4. The applicant requests that the Planning Commission waive the landscaping requirements given the presence of existing vegetation and the nature of surrounding land uses.

B. Proposal

The applicant requests site plan review and approval of a 30,000-square foot addition to the existing industrial building (36,032 square feet), as well as a redesigned parking lot and other typical site plan elements (landscaping, lighting, waste receptacle).

The proposed building addition is intended for warehousing/storage, which is permitted by right in the IND; however, given that the total building area proposed (66,032 square feet) exceeds 40,000 square feet, special land use approval is required.

Procedurally, the Planning Commission is to make a recommendation to the Township Board on the special land use, site plan and impact assessment following a public hearing. The Board then has final approval authority over the project.



Aerial view of site and surroundings (looking north)

C. Special Land Use Review

Section 19.03 of the Zoning Ordinance identifies the review criteria for Special Land Use applications as follows:

1. **Master Plan.** The Township Master Plan and Future Land Use map identify the site as Industrial, which is intended for “industrial uses such as research, wholesale and warehouse activities and light industrial operations which manufacture, compounding, process, package, assemble and/or treat finished or semi-finished products from previously prepared material.”

Both the location and nature of the site as a developed light industrial property are consistent with this category and description.

2. **Compatibility.** Surrounding uses are developed with and/or zoned and planned for industrial uses and activities. The rear of the site also abuts I-96.

So long as existing and/or proposed buffering along I-96 meets current standards, the project is generally expected to be compatible with its surroundings.

3. **Public Facilities and Services.** Given the fact that the site is already developed in an area planned for industrial uses, we do not anticipate issues with the capacity of public facilities and services. However, we defer to the Township Engineer and Fire Department for any specific comments/concerns they may have.

4. **Impacts.** As an already developed industrial site, adverse impacts upon the natural environment are not anticipated.

5. **Mitigation.** The Township may deem mitigation necessary to limit or alleviate any potential adverse impacts as a result of the proposed project.

D. Site Plan Review

- 1. Dimensional Requirements.** As shown in the table below, the proposal complies with the dimensional requirements of the IND.

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Lot Coverage
	Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
IND	1	150	85	25	40	20 front 10 side/rear	30' 2 stories	40% building 85% impervious
Proposal	12.4	600	100	35 (N) 330 (S)	430	70 front 225 side/rear	30' 1 stories	11.7% building 53.9% impervious

- 2. Building Materials and Design.** The proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission. The applicant should be prepared to present a color rendering and material sample board at the upcoming Planning Commission meeting.

Materials include decorative block and metal siding. The front of the building includes several windows to improve the aesthetics at the entrance to the property.

The revised submittal includes material calculations demonstrating that the amount of metal siding exceeds the limitations of Section 12.01.03. More specifically, the Ordinance restricts the use of metal siding to no more than 25% of a wall face visible from a parking lot or roadway. The north, south and east elevations are all well in excess of 25%.

With that being said, the building elevations note that materials, design and colors will match the existing building. The Ordinance gives Planning Commission the discretion to modify these requirements under certain circumstances, such as when an addition is consistent with the existing building.

- 3. Parking.** The site plan provides the 77 parking spaces required for this proposal, including 4 barrier-free spaces.

The parking spaces and drive aisles meet or exceed the dimensional standards of Section 14.06. A detail and note on Sheet C-2.0 show the use of looped (double striped) spaces, as required.

- 4. Pedestrian Circulation.** The site plan proposes concrete sidewalks connecting the parking lots to building entrances. As an industrial site, no public sidewalk is required along the road frontage.
- 5. Vehicular Circulation.** The site currently has access via Sterling Drive and no changes are proposed. Internal circulation includes a new drive south of the building that connects to the existing drive, thus providing a full loop around the building.

Drive aisles meet or exceed Ordinance standards and a truck turning template is shown on Sheet C-3.0 demonstrating that large trucks with trailers can adequately navigate.

Additionally, there are two areas identified for emergency vehicle access. We defer to the Fire Department as to whether this design satisfies their requirements.

- 6. Loading.** The site plan includes 4 loading docks for loading/unloading of large deliveries on the west side of the building and provides ample space for smaller vehicles with short-term deliveries near building entrances.

7. Landscaping. We have reviewed the landscape plan based on the standards of Section 12.02:

Location	Requirements	Proposed
Buffer zone "B" (along I-96)	20' width 6' wall or berm 21 canopy trees 21 evergreen trees 84 shrubs	200' Existing vegetation
Parking lot	8 canopy trees 770 SF landscaped area	None
Detention pond	6 trees 60 shrubs	None

As part of this revised submittal, the applicant requests that the existing vegetation be allowed in lieu of new/additional plantings. Section 12.02.13 allows the Planning Commission to waive or modify landscaping requirements under certain circumstances (including the presence of existing vegetation and the nature of surrounding land uses).

8. Waste Receptacle and Enclosure. The project includes a new waste receptacle and enclosure south of the existing building. The revised submittal includes details demonstrating compliance with the base pad and enclosure requirements of the Zoning Ordinance.

9. Exterior Lighting. The lighting plan proposes 2 new pole mounted fixtures and 4 new wall mounted fixtures. Details note the use of LED fixtures that are downward directed/shielded, per Ordinance standards.

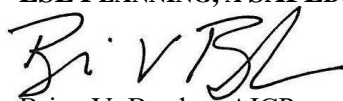
Lighting intensities and fixture heights also comply with current standards.

10. Signage. The site plan shows the existing ground sign near the entrance to the site from Sterling Drive, but does not identify any new signage proposed as part of this project.

11. Impact Assessment. The submittal includes an Impact Assessment (dated May 1, 2017). In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at borden@lsplanning.com.

Respectfully,
LSL PLANNING, A SAFE BUILT COMPANY


 Brian V. Borden, AICP
 Planning Manager



June 5, 2017

Ms. Kelly Van Marter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Re: A&F Wood Products Addition Site Plan Review #2

Dear Ms. Van Marter:

Tetra Tech conducted a site plan review of the revised plans, dated May 24, 2017, submitted by Schonscheck, Inc. for the referenced project. The applicant is proposing a 30,000 square foot building addition to the existing 36,000 square foot manufacturing, warehouse, and office space. The site is located on the west end of Sterling Road off of Grand River Avenue.

All outstanding items from our May 17, 2017, engineering review letter have been addressed in this submittal. A decision from the Brighton Area Fire Authority will be required for the construction plan review phase so that appropriate water main size and configuration, per the fire flow chart previously supplied, can be confirmed.

Please call if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gary Markstrom'.

Gary J. Markstrom, P.E.
Unit Vice President

A handwritten signature in blue ink, appearing to read 'Marguerite K. Davenport'.

Marguerite K. Davenport
Project Engineer

copy: Craig Zokas, President, Schonscheck, Inc.

Tetra Tech

401 South Washington Square, Suite 100, Lansing, MI 48933
Tel 517.316.3930 Fax 517.484.8140 www.tetrattech.com



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
o: 810-229-6640 f: 810-229-1619

May 31, 2017

Kelly VanMarter
Genoa Township
2911 Dorr Road
Brighton, MI 48116

RE: A & F Wood Products Addition
5665 Sterling Drive
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above mentioned site plan. The plans were received for review on May 24, 2017 and the drawings are dated May 2, 2017 with latest revisions dated May 24, 2017. The project is based on an existing 36,032 square foot wood working/ storage facility that will undergo site improvement including a 30,00 square foot addition. The plan review is based on the requirements of the International Fire Code (IFC) 2015 edition.

1. The water main extensions are located on the submittal, however the the system will be modeled by the MHOG Water Authority to ensure that fire flow requirement can be met. Depending upon the results of the model, the water main extension may be required to be looped around the building. If looping is required, an additional hydrant will be required along the western curb line to meet proper spacing. **(Based upon the modeled flow data provided through Tetra-Tech, the only option that will not be considered acceptable would be 8" dead-end mains for the on-site hydrants; all others meet the flow needed for fire flow as well as estimated sprinkler system demand).**
2. The building shall be provided with an automatic sprinkler system in accordance with NFPA 13, *Standard for the Installation of Automatic Sprinkler Systems*. **(Noted to be provided)**
IFC 903
 - A. The FDC shall be reflected on future submittals and must be located on the front of the new addition in an approved location. It shall be located within 100' of the new East hydrant. **(FDC is now shown on the front of the building)**
IFC 912.2
 - B. The location, size, gate valve, and connection of the fire protection lead shall be indicated on the utility site plan. **(Size of the Fire Protection lead is indicated)**
3. The building shall include the building address on the building. The address shall be a **minimum of 6"** high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. Existing address will be evaluated to determine if this is necessary. **(Noted to be provided on the building visible from the road)**
IFC 505.1
4. The access road around the north side of the building shall be marked as fire lane on both sides. The southern access road must be marked on the building side as a fire lane. Signage shall be spaced every 50'. Include the location of the proposed fire lane signage and



May 31, 2017

Page 2

A & F Wood Products Addition

5665 Sterling Drive

Site Plan Review

include a detail of the fire lane sign in the submittal. Access roads to site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. **(Locations and detail of signs is provided in the submittal. Additional signage is required along the west curb edge near new parking area).**

IFC D 103.6

IFC D 103.1

IFC D 102.1

IFC D 103.3

- 5. The location of a key box (Knox Box) shall be indicated on future submittals. The Knox box will be located adjacent to the main entrance door of the structure. **(A building mounted Knox Box is required to be located at the main entrance of the building with the location to be coordinated with the fire department. The box is not shown, however a detail is provided. C-3.0 indicates a note at the access gate referencing a knox box. This box is to be replaced with a Knox Padlock as described in Item #6 below.**

IFC 506.1

- 6. Secondary access road from Gray road must be provided with a gate at Gray Rd. and secured with a Knox Padlock. The secondary access shall be a minimum width of 20' and be capable of supporting 75,000 lbs emergency vehicles. The access road shall be maintained accessible in all climate conditions including snow. The curb shall be a transition curb from the secondary access to the rear lot. **(Detail for Knox Padlock is provided; however there is a Knox Box noted at the access road gate that is to be replaced with a Knox Padlock).**
- 7. Emergency vehicle access to south hydrant is approved and must be provided with No Parking Fire Lane Signage. **(Fire Lane signage is shown at this location)**
- 8. Fire department access doors are required every 100 lineal feet along the perimeter of the new addition high piled storage area. **(Doors are indicated on architectural and site plan drawings).**

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

Capt. Rick Boisvert, CFPS
Fire Inspector



2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

MEMORANDUM

TO: Craig Zokas, Schonscheck, Inc.
FROM: Kelly VanMarter, Assistant Township Manager/Community Development Director
DATE: June 5, 2017
RE: A&F Wood Products Addition

This memo will describe the connection fees required for the proposed 30,000 sq. ft. warehouse/storage addition to the existing A & F Wood Products located at 5665 Sterling Drive.

The property (15-200-028) was assessed 9 REU's in the Dorr Road Water and Sewer District. The current building calculates at 2 REU's as shown below.

33,000 sq.ft. Warehouse/Storage (.05 REU per 1,000 sq.ft.):	1.65 REU
2,560 sq.ft. office (.14 REU per 1,000 sq.ft.):	.35 REU
Current REU's:	2.00 REU

Using the REU table the addition would generate an additional 1.65 REU's for a combined total of 3.65 REU's. There would be 5.35 REU's remaining. (Shown below)

Proposed 30,000 sq.ft. Warehouse/Storage (.05 REU per 1,000 sq.ft):	1.65 REU's
Total REU's required:	3.65 REU's
Previous REU's Assessed=	9.00 REU's
REU Credit:	(5.35 REU's)

No additional Tap Fees are due at this time.

- Please note that Parcel reconfigurations should insure REU credits are allocated as needed.

SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

Michael C. Archinal

IMPACT ASSESSMENT

A & F WOOD PRODUCTS

SECTION 15, GENOA TOWNSHIP

PREPARED BY:

Monument Engineering Group Associates, Inc.
638 S. Grand Ave.
Fowlerville, Michigan 48836

PREPARED FOR:

Schonsheck, Inc.
50555 Pontiac Trail
Wixom, Michigan 48393

May 1, 2017

IMPACT ASSESSMENT

A. NAME(S) AND ADDRESS(ES) OF PERSON(S) RESPONSIBLE FOR PREPARATION OF THE STATEMENT.

Prepared by:

Monument Engineering Group Associates, Inc.
638 S. Grand Ave.
Fowlerville, Michigan 48836

Prepared for:

Schonscheck, Inc.
50555 Pontiac Trail
Wixom, Michigan 48393

B. DESCRIPTION OF THE SITE, INCLUDING EXISTING STRUCTURES, MAN MADE FACILITIES AND NATURAL FEATURES ALL INCLUSIVE TO WITHIN 10' OF THE PROPERTY BOUNDARY.

The site consists of 18.4 acres located at the south end of Gray Road and the west end of Sterling Drive. The site is bounded on the west side by I-96 Expressway. There is an existing 33,000 manufacturing / warehouse and 2,560 S.F. office facility. The company manufactures stores and distributes pocket door frames and commercial architectural flush doors. Approximately 75% of the building is storage and 25% manufacturing. The petitioner is proposing a building addition of 30,000 S.F. with a reconfiguration of the existing office space. Operations are to remain the same but expanded.

C. A WRITTEN DESCRIPTION OF THE ENVIRONMENTAL CHARACTERISTICS OF THE SITE PRIOR TO DEVELOPMENT, I.E., TOPOGRAPHY, SOILS, VEGETATIVE COVER, DRAINAGE, STREAMS CREEKS OR PONDS.

The property is mostly open meadow with a small tree and brush stand located on the west side and a group of trees in the northeast corner. The elevation slopes from 994 at the Northeast end of the site to elevation 973 at the Northwest end of the site.

The United States Department of Agriculture "Soil Survey of Livingston County, Michigan" indicates the soil type to mainly be Miami Loam (MoB & MoC) with 2 to 12% slopes. This moderate to poorly draining soil is typically located on tills and moraines.

D. DESCRIPTION OF SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION.

Surface runoff during construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence, inlet filters, and seed and mulch. A

grading permit will have to be obtained from the Livingston County Drain Commissioner's office.

E. DESCRIPTION OF PROPOSED USAGE AND OTHER MAN MADE FACILITIES; HOW IT CONFORMS TO EXISTING AND POTENTIAL DEVELOPMENT PATTERS. EFFECTS OF ADDED LIGHTING, NOISE OR AIR POLLUTION, ANY PROPOSED PHASING.

The property conforms to the current zoning of Industrial (IND). Industrial Zoning requires a 2 acre minimum unit size and 200 feet minimum frontage. The property is bordered on all sides by Industrial District Zoning, and will be consistent with adjacent uses.

The A & F Wood Products facility will have little effect on added lighting, noise or air pollution.

Pursuant to Article 9 of the Genoa Township Zoning Ordinance, the Principle use is permitted in the Industrial District under Paragraph "K," Manufacturing, Fabricating of Wood Materials.

F. DESCRIPTION OF NUMBER OF EMPLOYEES, PATRONS AND THE IMPACT OF GENERAL SERVICES, I.E.: SCHOOLS, POLICE, FIRE.

A & F Wood Products Corporation employs 53 full time employees. The hours of operation are from 7:00 a.m. – 3:30 p.m. Monday through Friday. Inbound freight is by truck (53') normally one (1) truck every day. Outbound freight is normally three (3) trucks per day five days a week.

In general terms, the project as a whole will generate jobs while creating minimal burden on public services such as schools, fire department, police department, etc.

G. DESCRIPTION OF ANY HAZARDOUS MATERIALS USED, STORED OR DISPOSED OF ON SITE.

The project will be serviced by public sanitary sewer and water main already at the site. Storm water management will be in accordance with the Livingston County Drain Commission requirements for water quality and quantity.

H. DESCRIPTION OF ANY HAZARDOUS MATERIALS USED, STORED OR DISPOSED OF ON SITE.

A & F Wood Products Corporation uses no hazardous materials for its operations.

PRELIMINARY SITE PLANS FOR A & F WOOD PRODUCTS

LEGAL DESCRIPTION (AS PROVIDED)

Parcel Tax Number: 4711-15-200-028

PARCEL 1:
SEC 15 T2N R5E, COMM NE COR, TH N88°19'39"W 1330.21 FT TH S01°38'45"W 446.49 FT TO POB TH S01°38'45"W 213.84 FT TH ON AN ARC OF A CURVE LEFT CHORD BEARING S74°54'32"W 132.57 FT TH N88°20'15"W 853.94 FT TH N38°28'54"W 76.87 FT TH N51°31'06"E 120 FT TH N38°28'54"W 145.03 FT TH N13°01'36"E 5.16 FT TH S88°20'15"E 1031.13 FT TO POB CONT. 5.66 AC.

Parcel Tax Number: 4711-15-200-029

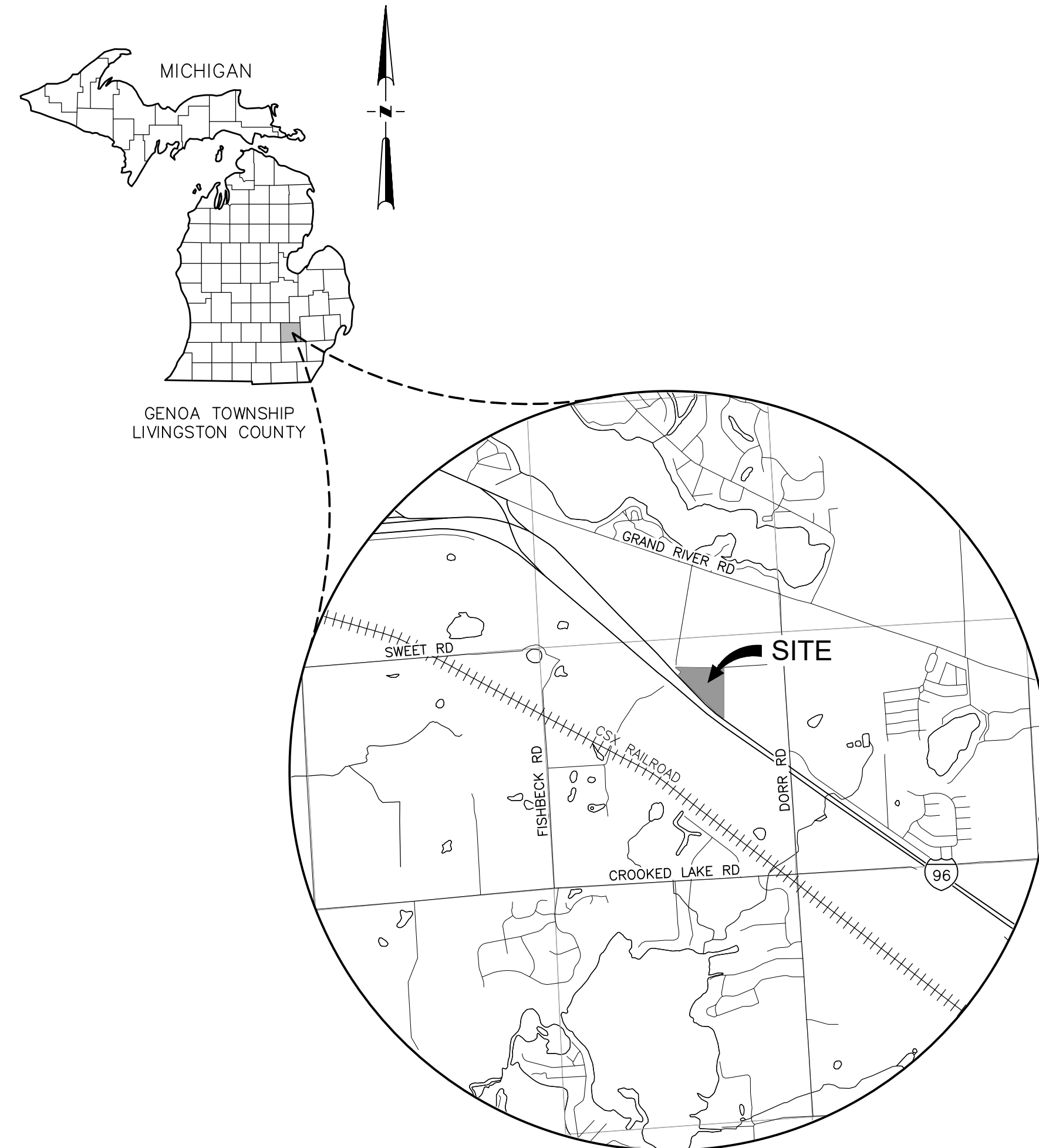
PARCEL 2:
SEC 15 T2N R5E, COMM NE COR, TH N88°19'39"W 1330.21 FT TH S01°38'45"W 660.33 FT TH ON AN ARC OF A CURVE LEFT CHORD BEARING S74°54'32"W 132.57 FT TO POB TH CONT ON ARC OF A CURVE LEFT CHORD BEARING S49°59'52"W 65.31 FT TH S41°50'09"W 96 FT TO CENTER OF A 75 FT RADIUS CUL-DE-SAC TH S37°41'31"W 506.48 FT TH ON AN ARC OF A CURVE TO RIGHT CHORD BEARING N38°59'18"W 119.75 FT TH N38°28'54"W 569.72 FT TH S88°20'15"E 853.94 FT TO POB CONT. 5.03 AC.

Parcel Tax Number: 4711-15-200-030

PARCEL 3:
SEC 15 T2N R5E, COMM NE COR, TH N88°19'39"W 1330.21 FT TH S01°38'45"W 1111.82 FT TH ON AN ARC OF A CURVE RIGHT CHORD BEARING N42°44'12"W 765.94 FT TH N37°41'31"E 506.48 FT TO CENTER OF A 75 FT RADIUS CUL-DE-SAC TH N41°50'09"E 96 FT TH ON AN ARC OF A CURVE RIGHT CHORD BEARING N66°44'50"E 193.76 FT TO POB CONT. 7.71 AC.

BEARING REFERENCE

Bearings are based on Project Coordinate System:
Michigan State Plane Coordinate System, NAD83 (Conus) (Mol) (GRS80), South Zone 2113, International Feet, Ground
(Lat: 42-34-10, Lon: 83-50-25, Elev: 992, Scale Factor: 1.00005000).



LOCATION MAP

DESIGN ENGINEER



MONUMENT ENGINEERING GROUP ASSOCIATES, INC

ENGINEERS - SURVEYORS - CONSULTANTS
LANDSCAPE ARCHITECTS - LAND PLANNERS

638 S GRAND AVE.,
FOWLERVILLE, MI 48836
ALLAN W PRUSS, PE, PS
PHONE: 517-223-3512

CLIENT



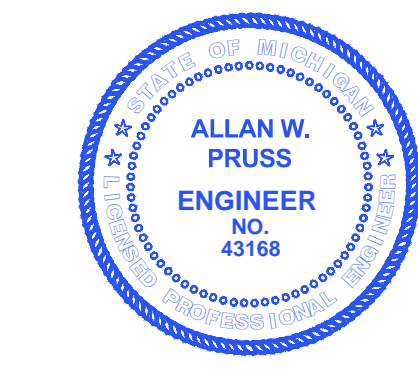
SCHONSHECK,

DESIGN BUILD - CONSTRUCTION
50555 PONTIAC TRAIL WIXOM, MI 48393
P: 248.669.8800 F: 248.669.0850
WWW.SCHONSHECK.COM

ARCHITECT

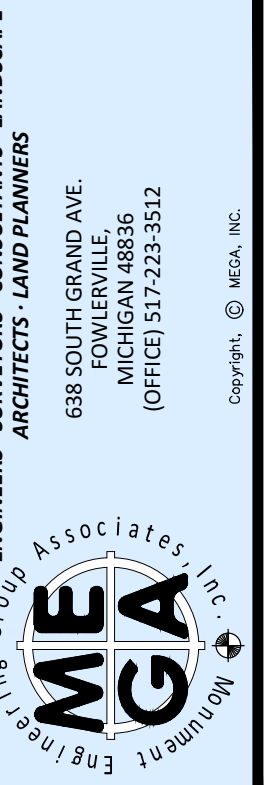
**SQUIRES
ARCHITECTURAL
GROUP, PLLC**

223 W. Grand River Ave, Suite 2
Howell, MI 48843
517.518.8843
www.squiresarchitectural.com



Allan W. Pruss

		PLAN SUBMITTALS			
		PRELIMINARY SITE PLAN SUBMITTAL	REVISED PER COMMENTS	REVISED PER COMMENTS	
		5/2/2017	5/23/2017	5/24/2017	
SHEET INDEX					
INCLUDED SHEETS					
GENERAL					
SHEET	G-1.0	COVER	•	•	•
SURVEY					
SHEET	V-1.0	TOPOGRAPHIC SURVEY (OVERVIEW)	•	•	•
CIVIL DEMOLITION					
SHEET	CD-1.0	DEMOLITION PLAN	•	•	•
SITE PLAN					
SHEET	C-1.0	SITE PLAN (OVERVIEW)	•	•	•
SHEET	C-2.0	DIMENSION & PAVING PLAN	•	•	•
VEHICLE CIRCULATION					
SHEET	C-3.0	VEHICLE CIRCULATION	•	•	•
UTILITY					
SHEET	C-4.0	UTILITY PLAN	•	•	•
GRADING					
SHEET	C-5.0	GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN	•	•	•
STORM WATER MANAGEMENT					
SHEET	C-6.0	DRAINAGE AREA & STORM WATER CALCULATION PLAN	•	•	•
SHEET	C-6.1	DETENTION BASIN DETAILS	•	•	•
DETAILS					
SHEET	C-7.0	DETAILS	•	•	•
SHEET	C-7.1	DETAILS	•	•	•
SPECIFICATIONS					
SHEET	C-8.0	SPECIFICATIONS	•	•	•
SHEET	C-8.1	SPECIFICATIONS	•	•	•
LANDSCAPING PLANS					
SHEET	L-1.0	LANDSCAPE PLAN (BY OTHERS)	•	•	•
SHEET	L-2.0	LANDSCAPE DETAILS (BY OTHERS)	•	•	•
LIGHTING PLAN					
SHEET	LP-1.0	PHOTOMETRIC SITE PLAN (BY OTHERS)	•	•	•
ARCHITECTURAL PLANS					
SHEET	AS-101	ARCHITECTURAL SITE PLAN (BY OTHERS)	•	•	•
SHEET	A-101	OVERALL FLOOR PLAN (BY OTHERS)	•	•	•
SHEET	A-201	BUILDIGN ELEVATIONS (BY OTHERS)	•	•	•
GENOA TOWNSHIP, LIVINGSTON COUNTY STANDARD DETAILS					



CLIENT :
COVER
ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVIEW PER COMMENTS	5/23/17
REVIEW PER COMMENTS	5/24/2017

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V. SCALE : N/A

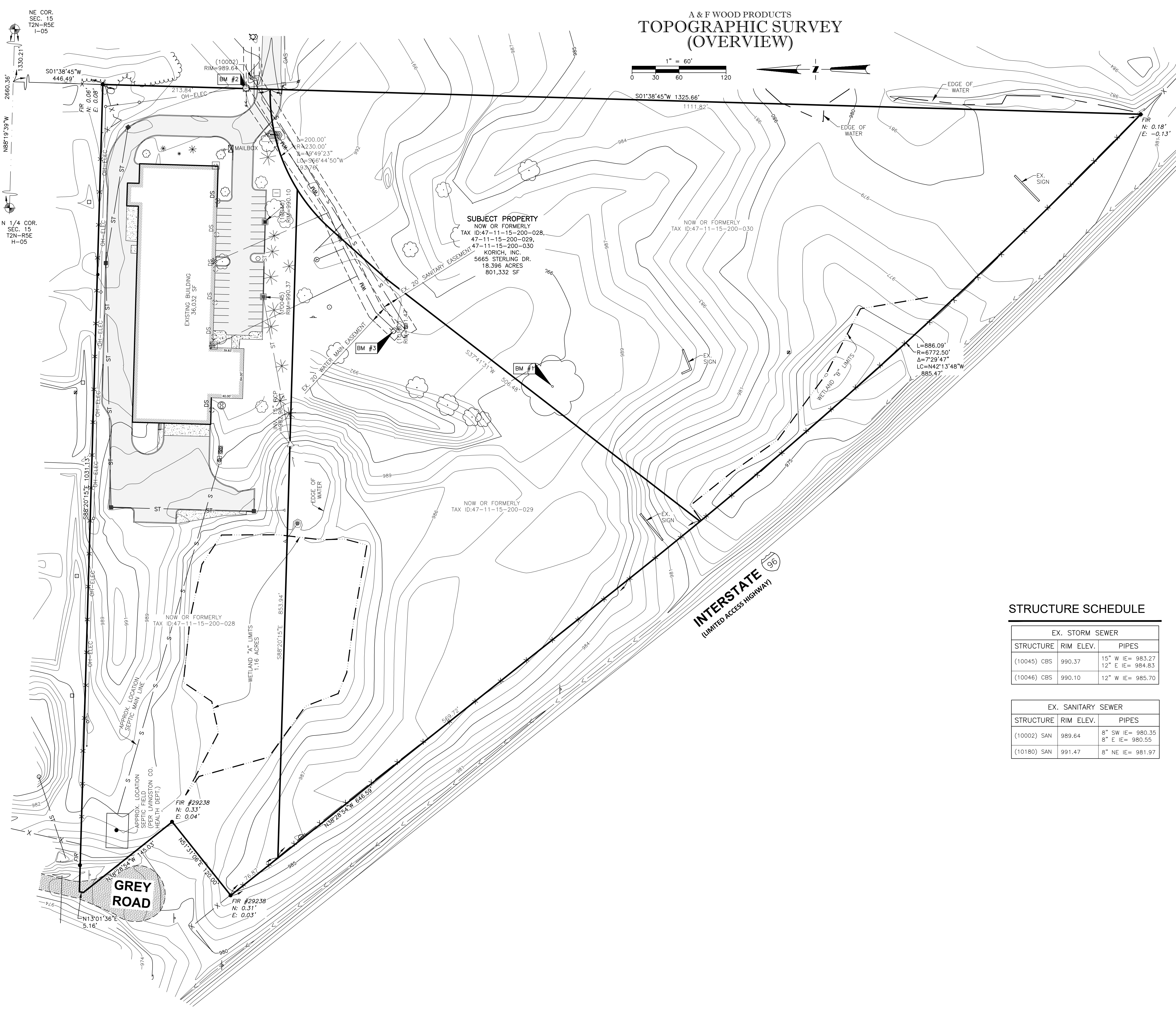
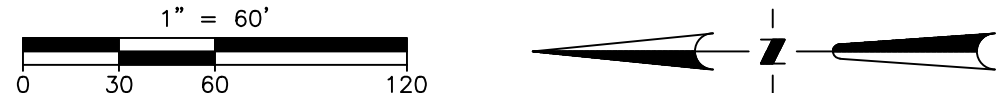
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JOB# : 17-046

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DATE : 5/2/2017
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SHEET : 1 OF 13

G-1.0

A & F WOOD PRODUCTS TOPOGRAPHIC SURVEY (OVERVIEW)



SUBJECT PROPERTY
NOW OR FORMERLY
TAX ID: 47-11-15-200-028,
47-11-15-200-029,
47-11-15-200-030
KORICH, INC.
5665 STERLING DR.
18.296 ACRES
801,332 SF

EXISTING LEGEND

	DECIDUOUS TREE, CONIFEROUS TREE, SHRUB
	TREE LINE/ CANOPY
	DITCH/ DRAINING COURSE
	UG TELE, MH, TELE PED, CABLE PED
	UG FIBER, PED, LINE MARKER, VAULT
	UG ELEC, MH, TRANSFORMER, AC UNIT, METER
	OH ELEC, UTIL POLE, GUY WIRE
	GROUND LIGHT, POLE, POLE W/ ARM LT
	LIGHT MH, LT CTRL BOX, PH. BOOTH, PARK. METER
	ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX
	UG GAS, MH, VALVE, LINE MARKER
	GAS WELL, METER, VENT
	WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
	IRRIGATION CONTROL VALVE, SPRINKLER HEAD
	STORM SEWER, MH, CB, INLET, YARD DRAIN
	CULVERT/ END SECTION
	SANITARY SEWER, MH, CLEAN OUT
	COMBINED SEWER, MH
	STEAM LINE, MH
	MISC. MANHOLE, HAND HOLE, HAND BOX
	SIGN, FLAG POLE, GUARD POST, ROCK
	SECTION LINE, SECTION CORNER
	SURVEY CONTROL POINT, BENCHMARK
	FOUND IRON ROD (FIR), FD MON, FD PK
	SET IRON ROD (SIR), SET PK, MAG NAIL
	SPOT ELEVATION
	CONTOUR
	FENCE
	GUARD RAIL
	RAILROAD SIGNAL, SIGNAL BOX
	ROW MARKER
	SOIL BORING
	EX. ASPHALT
	EX. CONCRETE
	EX. GRAVEL
	REGULAR SPACES
	BARRIER FREE SPACES

STRUCTURE SCHEDULE

EX. STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10045) CBS	990.37	15" W IE= 983.27 12" E IE= 984.83
(10046) CBS	990.10	12" W IE= 985.70

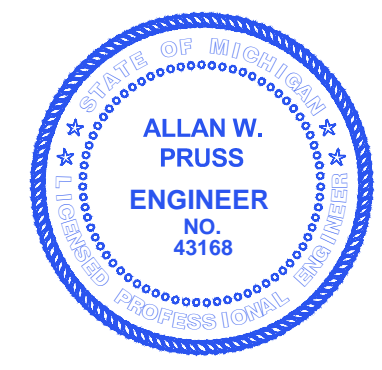
EX. SANITARY SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10002) SAN	989.64	8" SW IE= 980.35 8" E IE= 980.55
(10180) SAN	991.47	8" NE IE= 981.97

BENCHMARKS

- DATUM: LOCAL DATUM
- BM: #1
60D NAIL IN NORTHEAST SIDE OF 40" OAK TREE.
ELEV: 991.87
- BM: #2
60D NAIL IN NORTH SIDE UTILITY POLE.
ELEV: 991.82
- BM: #3
ARROW ON TOP OF HYDRANT, 229± SOUTH OF BUILDING.
ELEV: 993.89

REFERENCE INFO

- Per Site Plans provided by: Alpine Engineering Inc., Job No.: 04-267, Dated: 7-23-04
- Per Architectural Plans provided by: Squires Architectural Group, PLLC, Job No.: 17-366, Dated 4-27-17
- Per Site & Grading Plan provided by: Advantage Civil Engineering, Job No.: 981111, Dated: 7-07-98
- Per Water Main Plans provided by: Tetra Tech Mps, Job No.: 0144472-SW-1, Dated: 2-27-02



Allan W. Pruss

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MEGA
638 SOUTH GRAND AVE.
ANN ARBOR, MI 48106
OFFICE: 517.233.9512

CLIENT: SCHONSHECK,
ADDITIONAL CONSULTANTS
MEGA

TOPOGRAPHIC SURVEY (OVERVIEW)

ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	REVISIONS
5/23/17	REVISED PER REVIEW COMMENTS
5/24/2017	REVISED PER COMMENTS

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V. SCALE : N/A

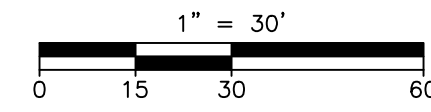
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DATE : 5/2/2017
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SHEET : 2 OF 13

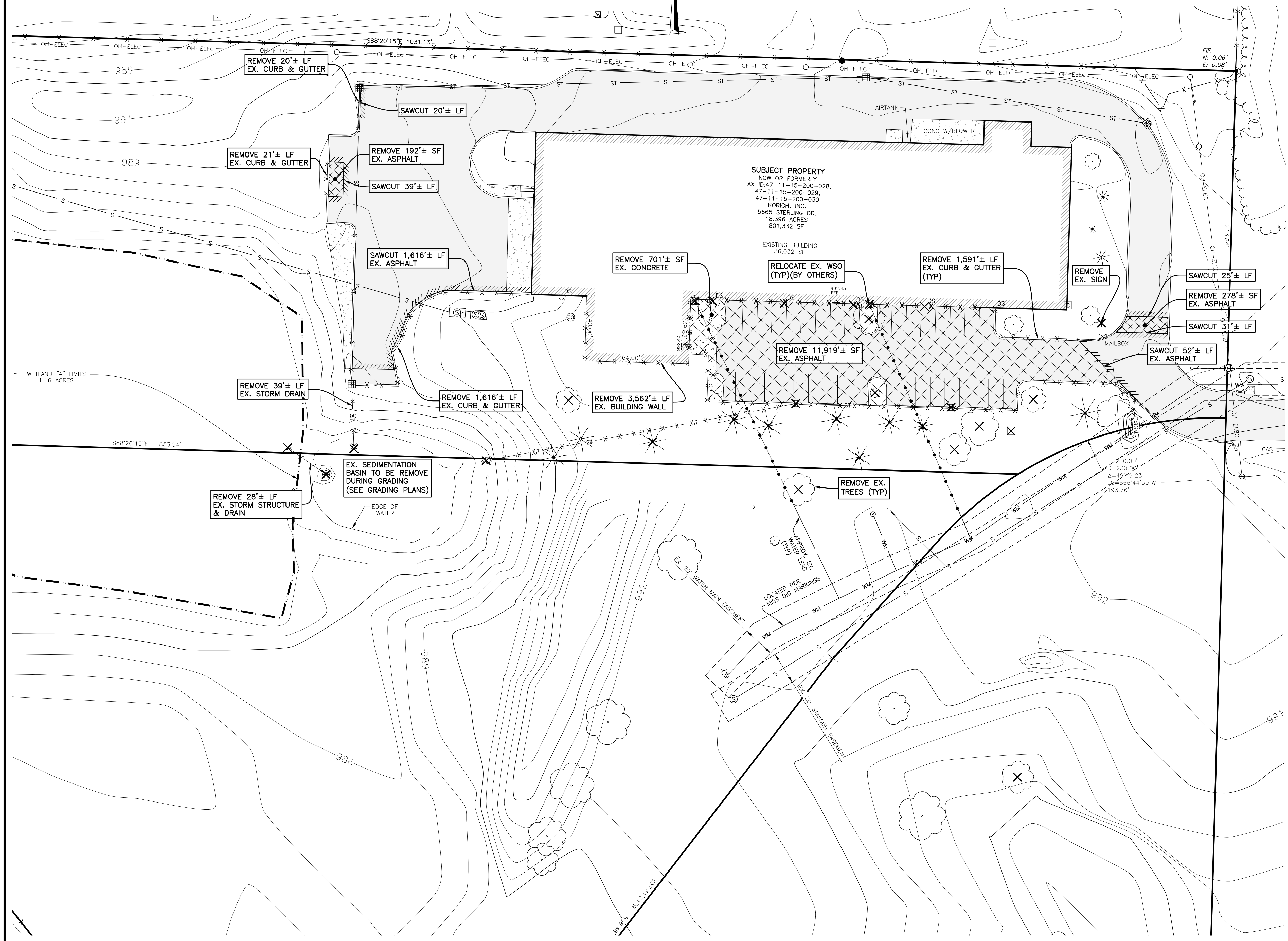
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A & F WOOD PRODUCTS DEMOLITION PLAN



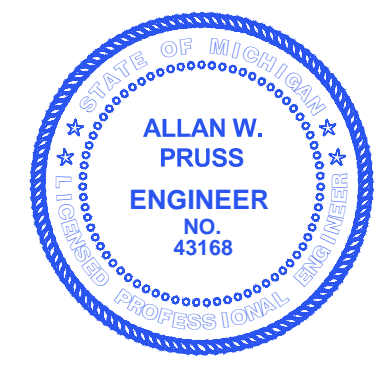
DEMOLITION LEGEND

- ABANDON IN PLACE
- ////// ABANDON LINEAR FEATURE
- ////// SAWCUT
- X X X X X X X X X X REMOVE LINEAR FEATURE
- X REMOVE OBJECT
- REMOVE PAVEMENT
- X TREE TO BE REMOVED



SUBJECT PROPERTY
 NOW OR FORMERLY
 TAX ID: 47-11-15-200-028,
 47-11-15-200-029,
 47-11-15-200-030
 KORICH, INC.
 5665 STERLING DR.
 18.396 ACRES
 801,332 SF

EXISTING BUILDING
 36,032 SF



Allan W. Pruss

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 FOWLERVILLE, MICHIGAN
 OFFICE: 517-233-9512
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CLIENT: **SCHONSHECK,**
 ADDITIONAL CONSULTANTS:
 PROJECT: **DEMOLITION PLAN**

DEMOLITION PLAN
 ADDITION FOR: A&F WOOD PRODUCTS
 PART OF NE 1/4, SEC. 15, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

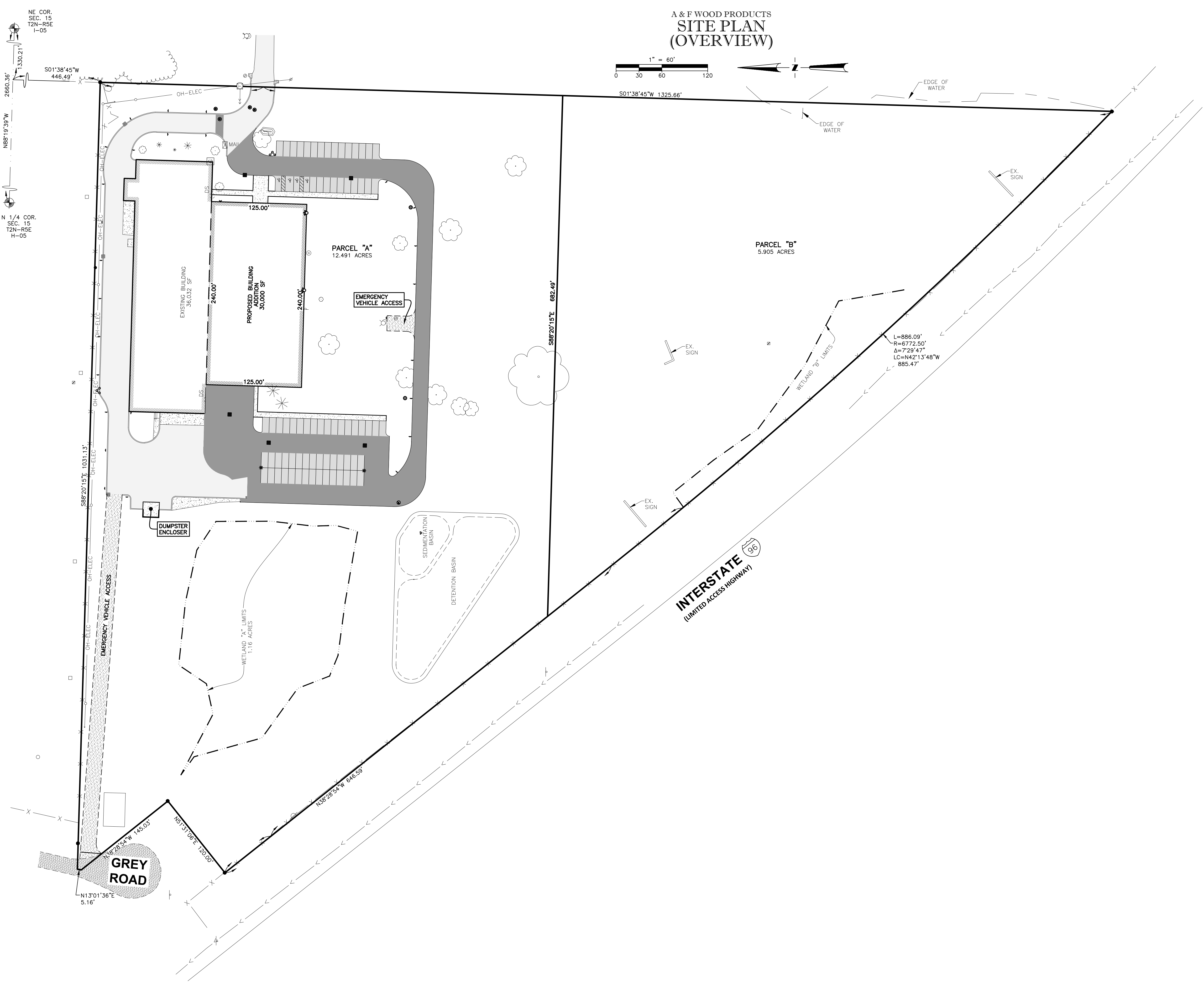
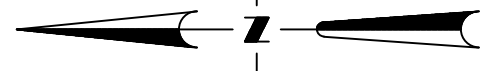
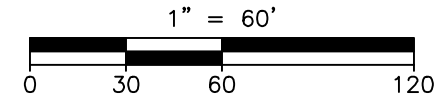
REVISIONS	DATE
REVISED PER REVIEW COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

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 SCALE: 1" = 30'
 JOB#: 17-046

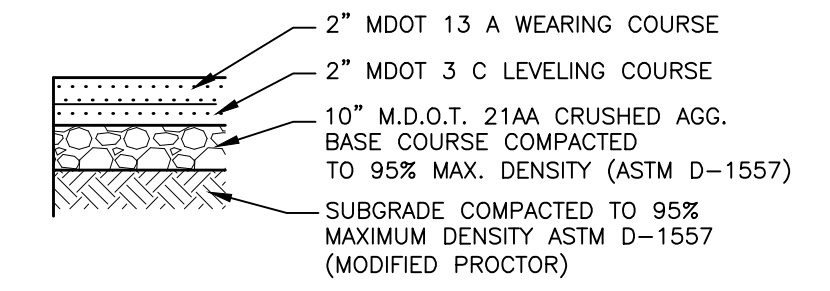
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CD-10

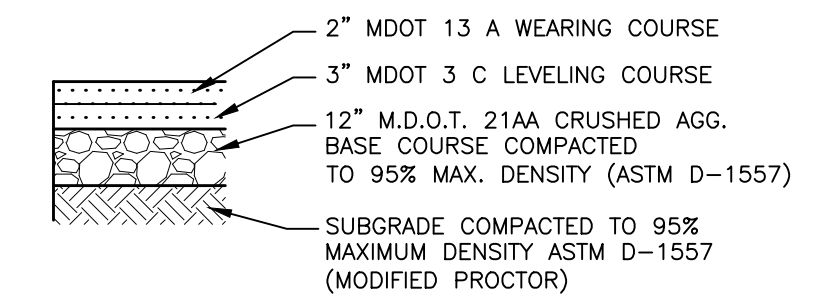
A & F WOOD PRODUCTS SITE PLAN (OVERVIEW)



PAVEMENT SECTIONS:

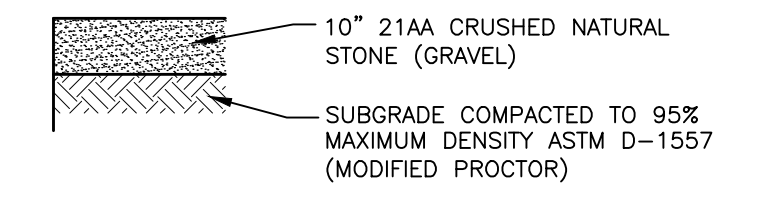


**STANDARD DUTY PAVEMENT
CROSS SECTION**
NOT TO SCALE



**HEAVY DUTY PAVEMENT
CROSS SECTION**
NOT TO SCALE

GRAVEL CROSS SECTION



PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. LIGHT DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL

ENGINEERS - SURVEYORS - CONSULTANTS - LANDSCAPE ARCHITECTS - LAND PLANNERS
638 SOUTH GRAND AVE.
FOWLERVILLE, MICHIGAN 48732
(OFFICE) 517-233-9512
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CLIENT : **SCHONSHECK,**
ARCHITECTS
10000 WOODLAND COUNTRY DRIVE
ANN ARBOR, MI 48106
WWW.SCHONSHECK.COM

SITE PLAN (OVERVIEW)
ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISED PER REVIEW COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

CONT. INT.: 1 FOOT
FIELD : DF, TG
V. SCALE : N/A

SCALE: 1" = 60'

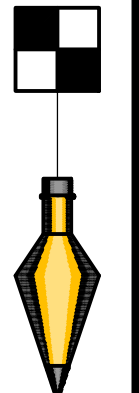
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CHECK : AP
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SHEET : 4 OF 13



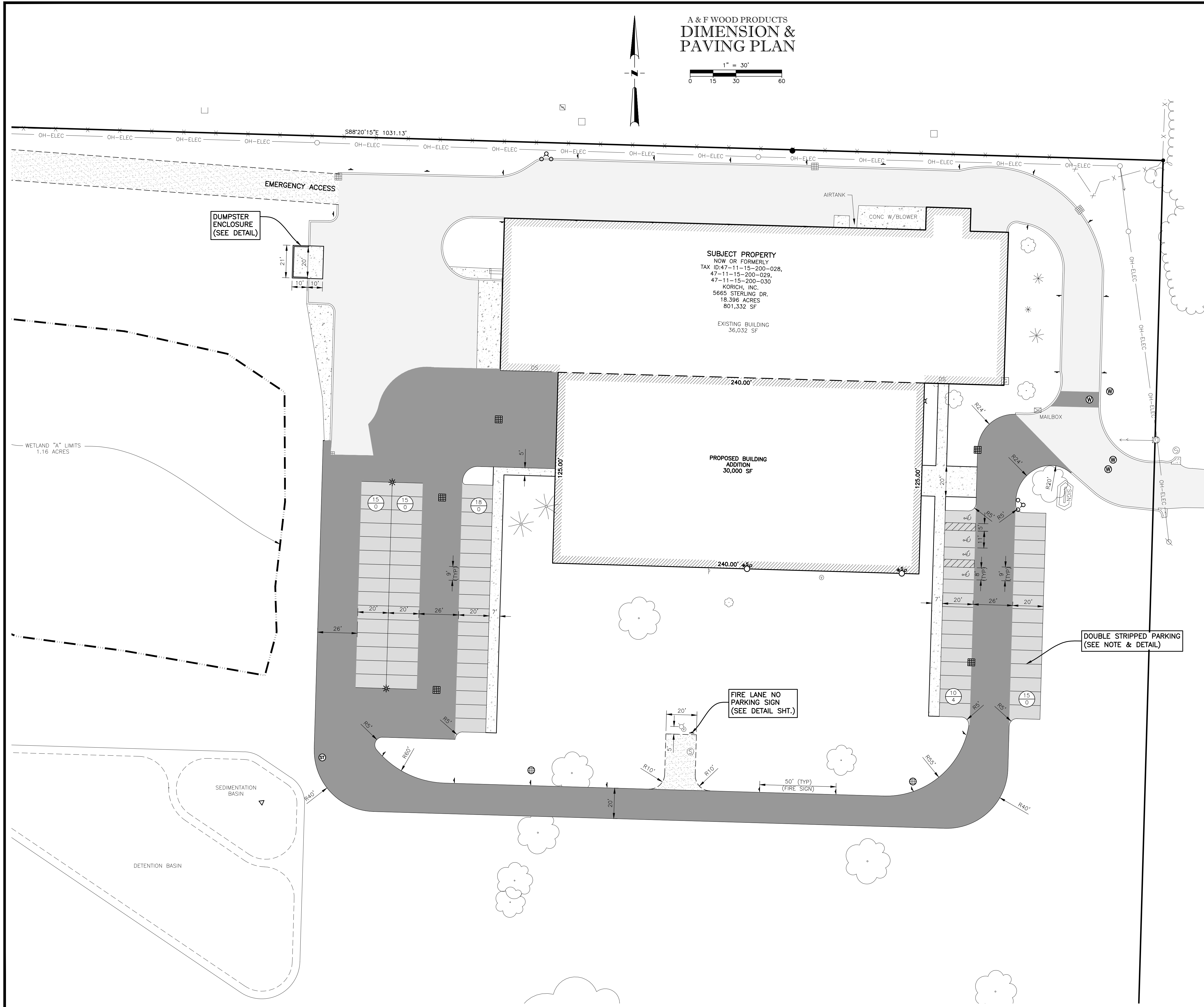
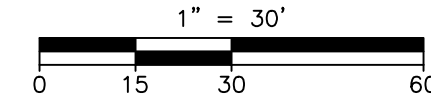
Allan W. Pruss

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C-1.0

A & F WOOD PRODUCTS DIMENSION & PAVING PLAN



SUBJECT PROPERTY
NOW OR FORMERLY
TAX ID: 47-11-15-200-028,
47-11-15-200-029,
47-11-15-200-030
KORICH, INC.
5665 STERLING DR.
18.396 ACRES
801,332 SF

EXISTING BUILDING
36,032 SF

PROPOSED BUILDING
ADDITION
30,000 SF

ZONING (AS PROVIDED):

This zoning information is taken from a zoning report compiled by Squires Architectural Group, PLLC under Project No. 17-366, dated April 27, 2017.

ZONING CLASSIFICATION: (IND) INDUSTRIAL

ADJACENT ZONING:
NORTH: IND
SOUTH: IND
EAST: IND
West: IND

PARCEL SIZE: 18.8 ACRES

EXISTING BUILDING SIZE:
OFFICE: 2,544 (TO BE REMOVED)
WAREHOUSE: 16,500 SF
MANUFACTURING: 16,931 SF

PROPOSED BUILDING ADDITION:
OFFICE: 7,000 SF
WAREHOUSE: 23,000 SF

TOTAL OFFICE: 7,000 SF
TOTAL WAREHOUSE: 39,500 SF
TOTAL MANUFACT.: 16,931 SF

BUILDING SETBACKS REQUIREMENTS:
REQUIRED: PROVIDED:
FRONT: 50'/85' 100' (EXISTING)
SIDE: 25' 35' (EXISTING)
REAR: 40' 385' (EXISTING)

BUILDING HEIGHT: 30' (FROM GRADE TO HALFWAY BETWEEN EAVE AND RIDGE)

PARKING (AS PROVIDED):

This Parking information is taken from a zoning report compiled by Squires Architectural Group, PLLC under Project No. 17-366, dated April 27, 2017.

OFFICE: 1:300 GROSS SF
7,000/300 = 24 SPACES

WAREHOUSE: 1:1,500 GROSS SF
39,500/1,500 = 27 SPACES

MANUFACTURING: 1.5/1,000 GROSS SF
(16,931/1,000) X 1.5 = 26 SPACES

TOTAL PARKING REQUIRED: 77 SPACES

73 PARKING SPACES
4 BARRIER FREE SPACES
77 TOTAL PARKING PROVIDED

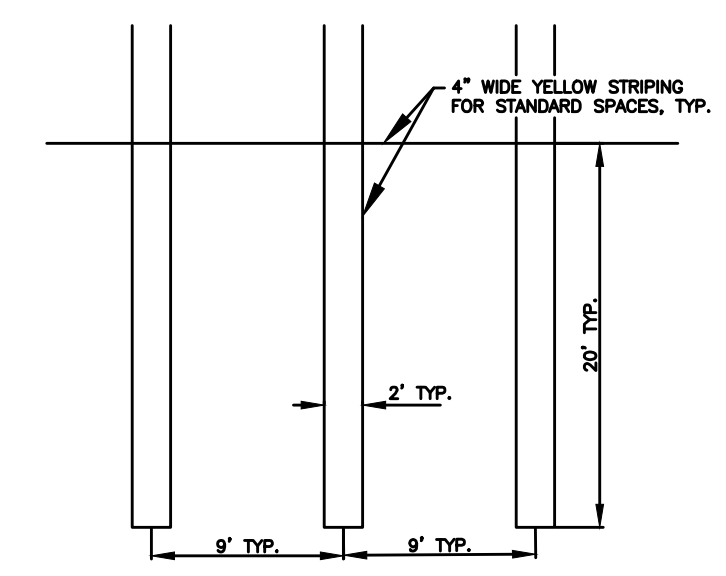
XX REGULAR SPACES
XX BARRIER FREE SPACES

NOTE

- All parking stripes requires the use of looped (double striped) spaces per Township Ordinances.

DOUBLE STRIPING DETAIL

NOT TO SCALE



DOUBLE STRIPPED PARKING
(SEE NOTE & DETAIL)

FIRE LANE NO
PARKING SIGN
(SEE DETAIL SHT.)



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638 SOUTH GRAND AVE.
FOWLERVILLE, MI 48731
PHONE: (517) 233-9512
OFFICE: (517) 233-9512
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CLIENT :
SCHONSHECK,
INDUSTRIAL OVERSEAS TRADING
CORPORATION
10000 WOODLAND DRIVE
WARREN, MI 48090

DIMENSION & PAVING PLAN

ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISED PER REVIEW COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

CONT. INT.: 1 FOOT
FIELD : DF, TG
V. SCALE : N/A

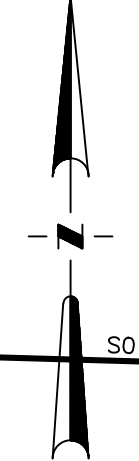
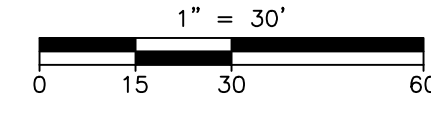
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JOB#: 17-046

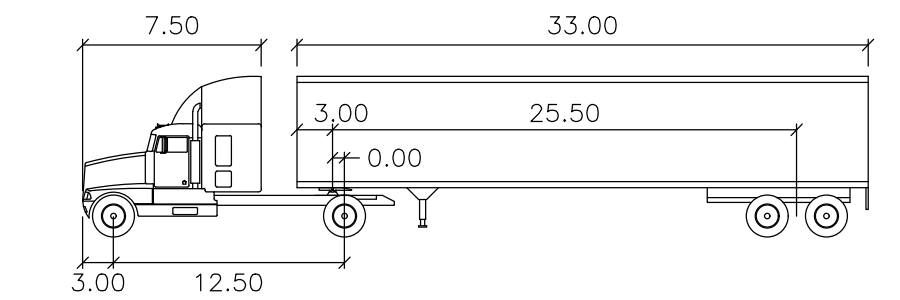
DRWG. by : DC
CHECK : AP
DATE : 5/2/2017
17-046_C-2.0_Dim-Pav
SHEET : 5 OF 13

C-2.0

A & F WOOD PRODUCTS VEHICLE CIRCULATION PLAN

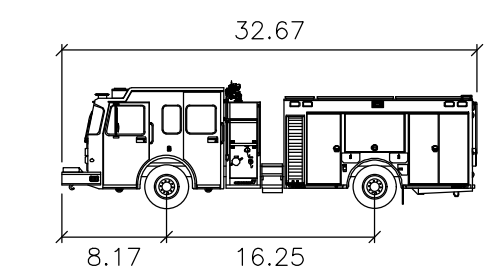


SEMI TRUCK



WB-12M	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 20.3
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.00		

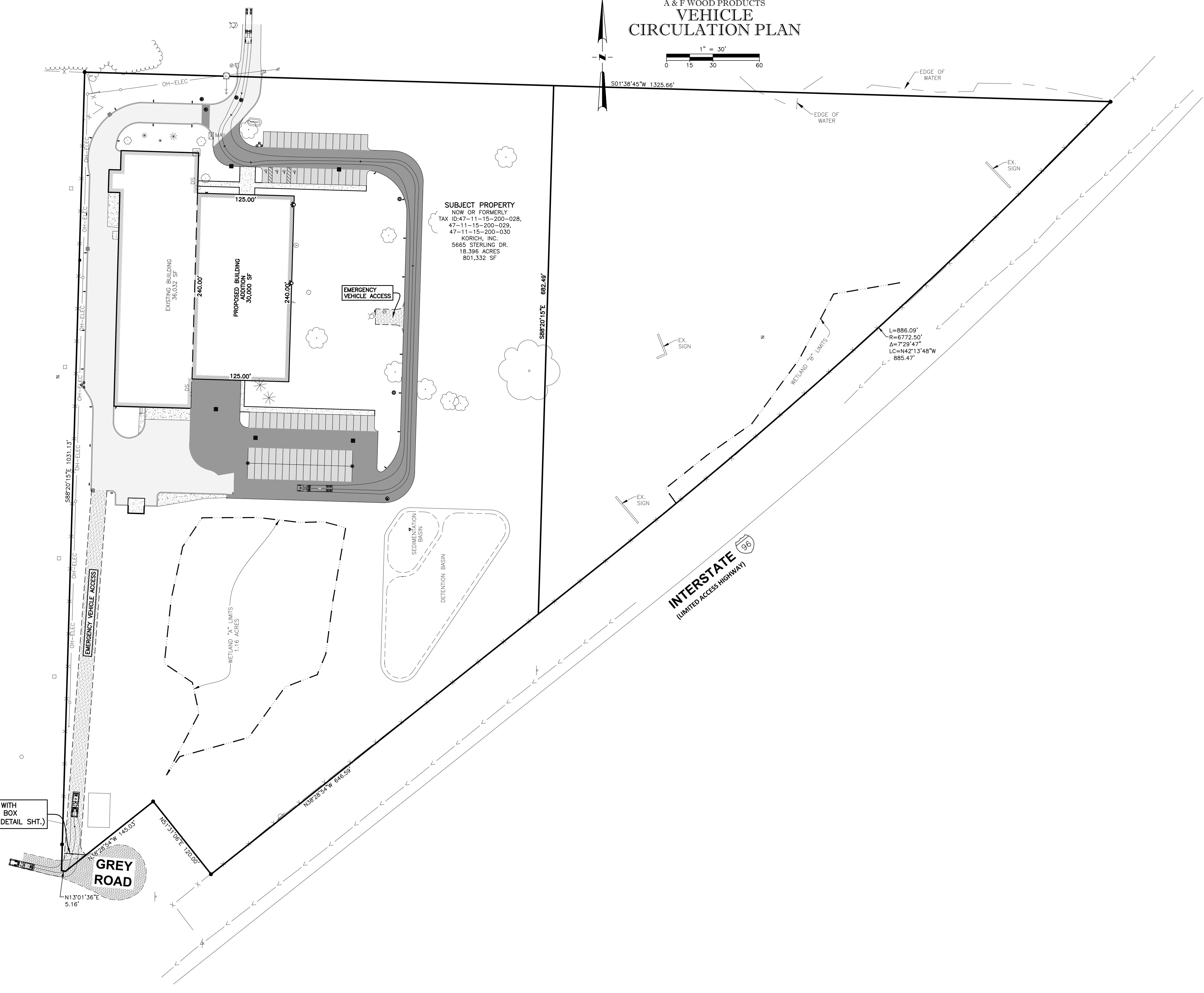
EMERGENCY VEHICLE



Toyne Pumper

	feet
Width	: 8.35
Track	: 7.93
Lock to Lock Time	: 6.0
Steering Angle	: 50.0

SUBJECT PROPERTY
 NOW OR FORMERLY
 TAX ID: 47-11-15-200-028,
 47-11-15-200-029,
 47-11-15-200-030
 KORICH, INC.
 5665 STERLING DR.
 18.396 ACRES
 801,332 SF



INTERSTATE 96
 (LIMITED ACCESS HIGHWAY)

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 ARCHITECTS - LAND PLANNERS
 FOWLERVILLE, MICHIGAN
 (OFFICE) 517.233.9512
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SCHONSHECK, G
 PROFESSIONAL CORPORATION
 1000 W. WATSON BLVD., SUITE 100
 TROY, MI 48063-1000
 CLIENT :

VEHICLE CIRCULATION PLAN
 ADDITION FOR: A&F WOOD PRODUCTS
 PART OF NE 1/4, SEC. 15, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISED PER COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

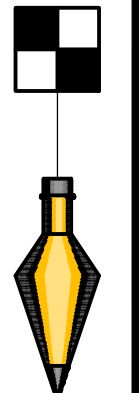
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 FIELD : DF, TG
 V. SCALE : N/A

SCALE: 1" = 30'

JOB#: 17-046

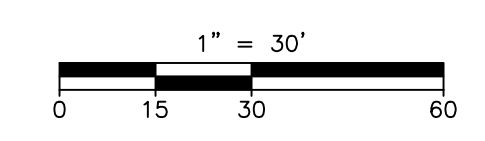
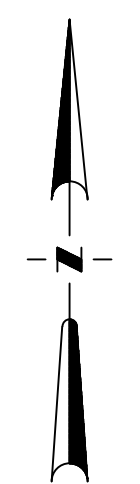
DRWG. by : DC
 CHECK : AP
 DATE : 5/2/2017
 17-046_C-3.0_Circ
 SHEET : 6 OF 13

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C-3.0

A & F WOOD PRODUCTS UTILITY PLAN



UTILITY LEGEND

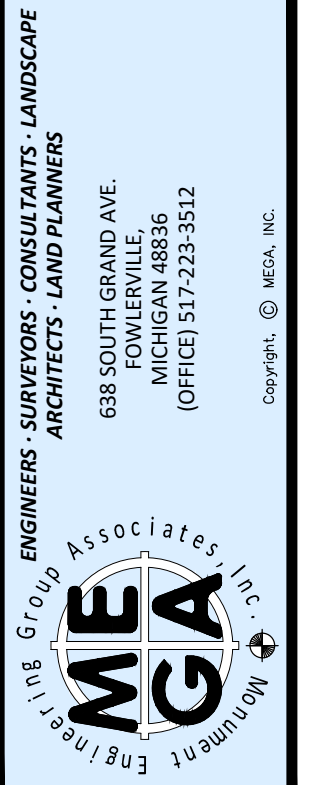
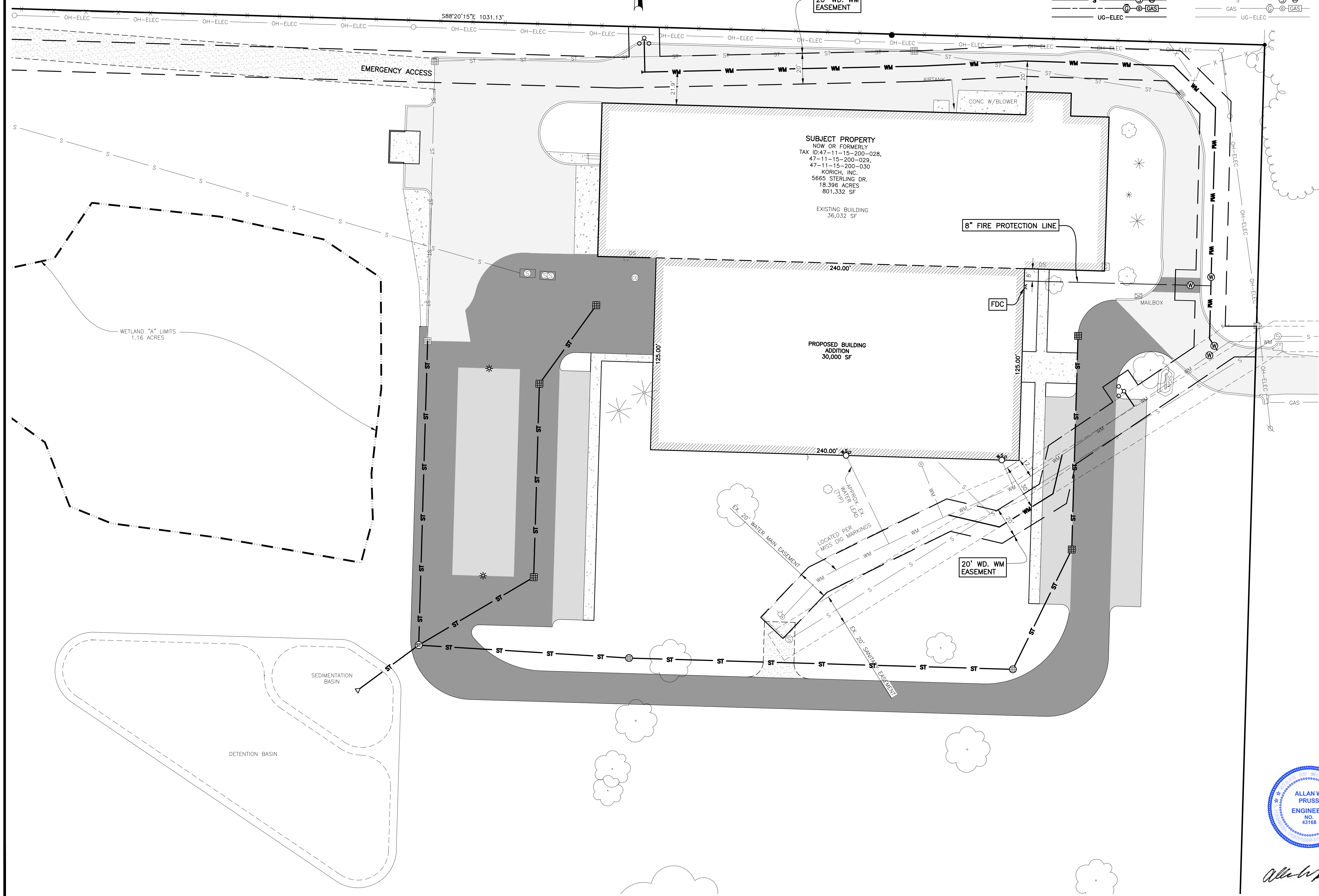
PROPOSED	EXISTING
WM (with valve symbol)	WM (with valve symbol)
ST (with valve symbol)	ST (with valve symbol)
S (with valve symbol)	S (with valve symbol)
UG-ELEC (with cable symbol)	UG-ELEC (with cable symbol)
Y.D. (with valve symbol)	Y.D. (with valve symbol)
GAS (with valve symbol)	GAS (with valve symbol)

WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
 WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
 STORM SEWER, MH, CB, INLET, YARD DRAIN
 CULVERT/ END SECTION
 SANITARY SEWER, MH, CLEAN OUT
 UG GAS, MH, VALVE, LINE MARKER
 UG ELEC (ELEC, CABLE, FIBER)

STRUCTURE SCHEDULE

EX. STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10045) CBS	990.37	15" W IE= 983.27 12" E IE= 984.83
(10046) CBS	990.10	12" W IE= 985.70

EX. SANITARY SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10002) SAN	989.64	8" SW IE= 980.35 8" E IE= 980.55
(10180) SAN	991.47	8" NE IE= 981.97

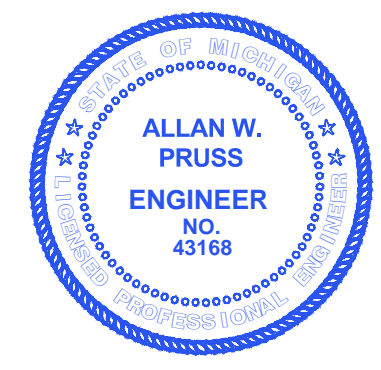


SCHONSHECK
 PROFESSIONAL CORPORATION
 10000 WOODLAND AVENUE
 FARMINGTON HILLS, MI 48334
 (248) 853-8800
 (248) 853-8812

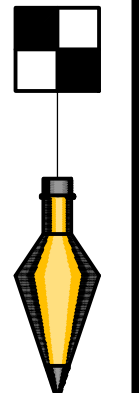
UTILITY PLAN
 CLIENT :
 ADDITION FOR: A&F WOOD PRODUCTS
 PART OF NE 1/4, SEC. 15, T2N-R5E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISED PER REVIEW COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

CONT. INT.: 1 FOOT
 FIELD : DF, TG
 V. SCALE : N/A
 SCALE: 1" = 30'
 JOB#: 17-046
 DRWG. by : DC
 CHECK : AP
 DATE : 5/2/2017
 17-046_C-4.0_UH1
 SHEET : 7 OF 13

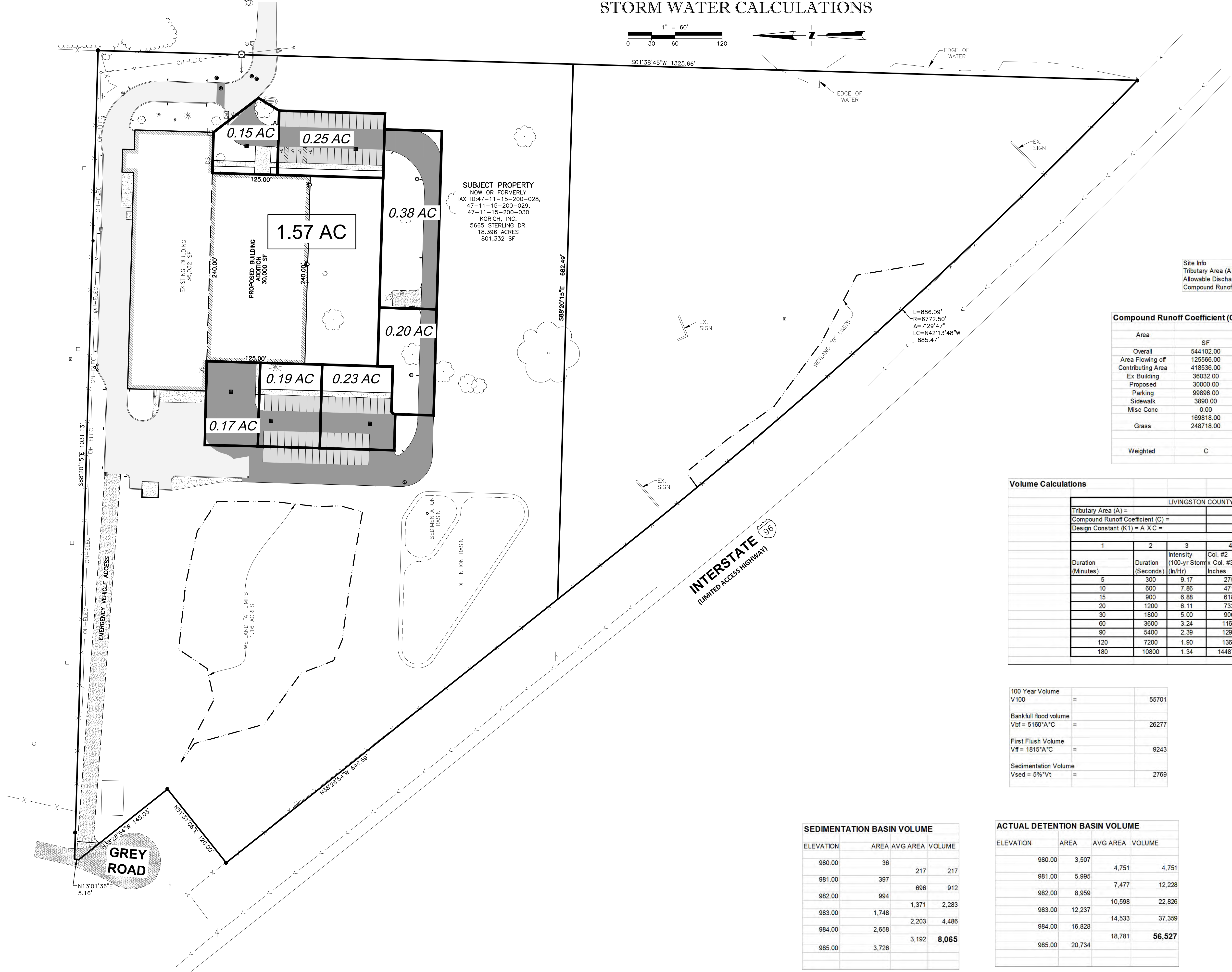
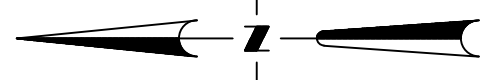
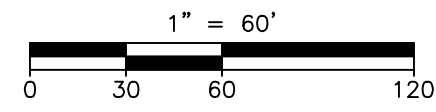


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C-4.0

A & F WOOD PRODUCTS DRAINAGE AREA & STORM WATER CALCULATIONS



SUBJECT PROPERTY
NOW OR FORMERLY
TAX ID: 47-11-15-200-028,
47-11-15-200-029,
47-11-15-200-030
KORICH, INC.
5665 STERLING DR.
18.396 ACRES
801,332 SF

Site Info

Tributary Area (A)	=	9.61 Acres
Allowable Discharge Rate (Qo)	=	0.2 cfs/ac
Compound Runoff Coefficient (C)	=	0.53

Compound Runoff Coefficient (C)

Area	SF	AC	C		
Overall	544102.00	12.49			
Area Flowing off	125566.00	2.88			
Contributing Area	418536.00	9.61			
Ex Building	36032.00	0.83	0.90	32428.80	
Proposed	30000.00	0.69	0.90	27000.00	
Parking	99896.00	2.29	0.60	59937.60	
Sidewalk	3890.00	0.09	0.90	3501.00	
Misc Conc	0.00	0.00	0.90	0.00	
Grass	169818.00	3.90	0.20	49743.60	
	248718.00	5.71	0.20	172611.00	
Weighted	C	172611.00	0.41	Use	0.53
		418536.00			

Volume Calculations

LIVINGSTON COUNTY DETENTION METHOD						
Tributary Area (A) =	9.61					
Compound Runoff Coefficient (C) =	0.53					
Design Constant (K1) = A X C =	5.092					
Allowable Outflow Rate (Qo) = .2 cfs per acre	1.922					
1	2	3	4	5	6	7
Duration (Minutes)	Duration (Seconds)	Intensity (100-yr Storm) (In/Hr)	Col. #2 x Col. #3 (Inches)	Inflow Volume = Col. #4 x K1 (Cu. Ft.)	Outflow Volume = Col. #2 x Qo (Cu. Ft.)	Storage Volume = Col. 5 - Col. 6 (Cu. Ft.)
5	300	9.17	2750	14004.05	576.50	13427.55
10	600	7.86	4714	24006.94	1152.99	22853.94
15	900	6.88	6188	31509.10	1729.49	29779.61
20	1200	6.11	7333	37344.12	2305.98	35038.14
30	1800	5.00	9000	45831.42	3458.98	42372.45
60	3600	3.24	11647	59311.25	6917.95	52393.30
90	5400	2.39	12913	65758.13	10376.93	55381.20
120	7200	1.90	13655	69537.33	13835.90	55701
180	10800	1.34	14487.80	73777.41	20753.85	53023.56

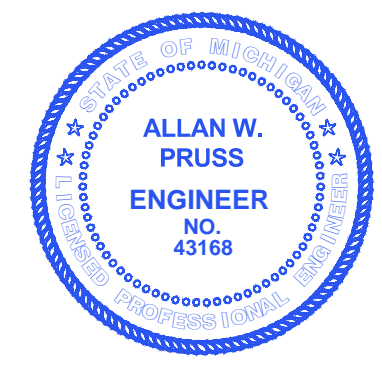
100 Year Volume V100 =	55701
Bankfull flood volume Vbf = 5160*A*C =	26277
First Flush Volume Vff = 1815*A*C =	9243
Sedimentation Volume Vsed = 5%*Vt =	2769

SEDIMENTATION BASIN VOLUME

ELEVATION	AREA	AVG AREA	VOLUME
980.00	36	217	217
981.00	397	696	912
982.00	994	1,371	2,283
983.00	1,748	2,203	4,486
984.00	2,658	3,192	8,065
985.00	3,726		

ACTUAL DETENTION BASIN VOLUME

ELEVATION	AREA	AVG AREA	VOLUME
980.00	3,507	4,751	4,751
981.00	5,995	7,477	12,228
982.00	8,959	10,598	22,826
983.00	12,237	14,533	37,359
984.00	16,828	18,781	56,527
985.00	20,734		



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SCHONSHECK,
ARCHITECTS

DRAINAGE AREA & STORM WATER CALS
ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

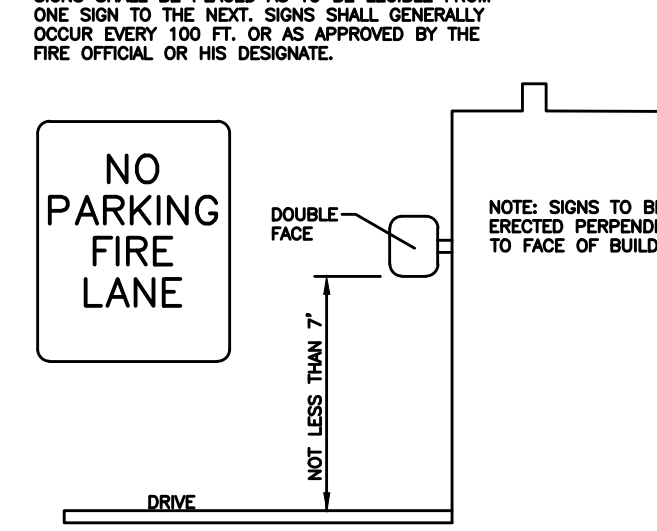
DATE	REVISIONS
5/23/17	REVISED PER REVIEW COMMENTS
5/24/2017	REVISED PER COMMENTS

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FIELD : DF, TG
V. SCALE : N/A
SCALE: 1" = 60'
JOB#: 17-046
DRWG. by: DC
CHECK : AP
DATE : 5/2/2017
17-046-C-6.0_S-W-U
SHEET : 9 OF 13
C-6.0

LATERAL CLEARANCE:
IN URBAN AREAS, A MINIMUM CLEARANCE OF TWO FEET BETWEEN CURB FACE AND SIGN INSTALLATION SHOULD BE MAINTAINED, BUT A CLEARANCE OF ONE FOOT FROM CURB FACE IS PERMISSIBLE WHERE SIDEWALK WIDTH IS LIMITED OR WHERE DUSTING POLES ARE CLOSE TO THE CURB.

NOTE: SIGNS TO BE ERECTED PERPENDICULAR TO DRIVE.

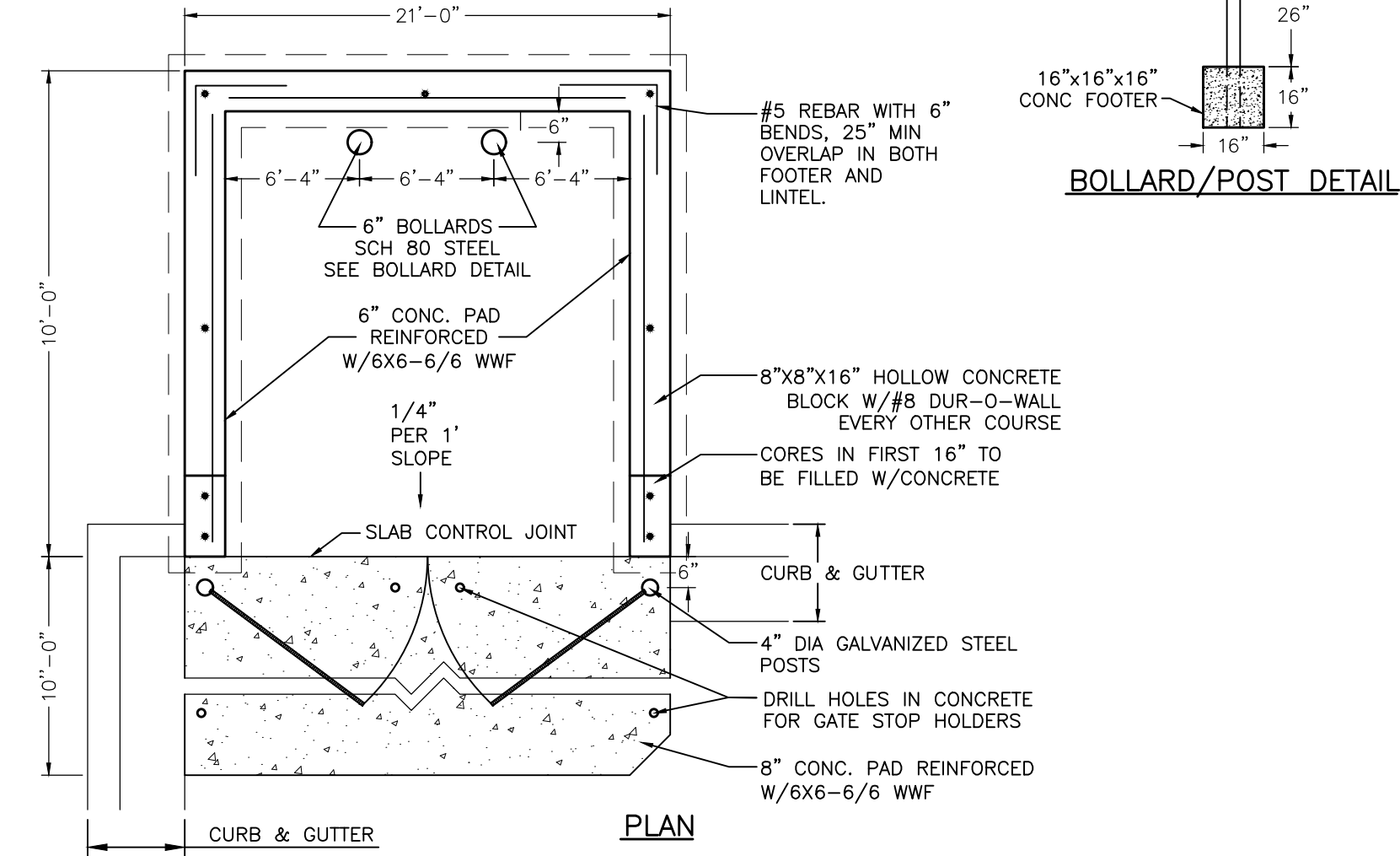
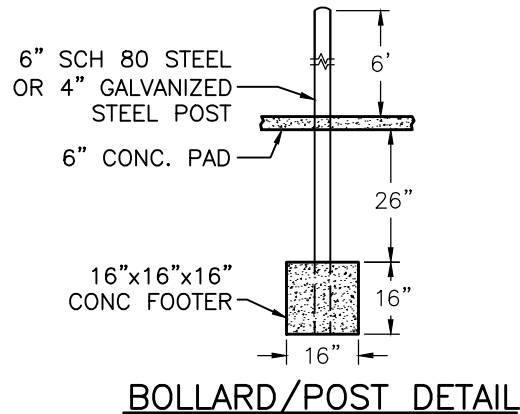
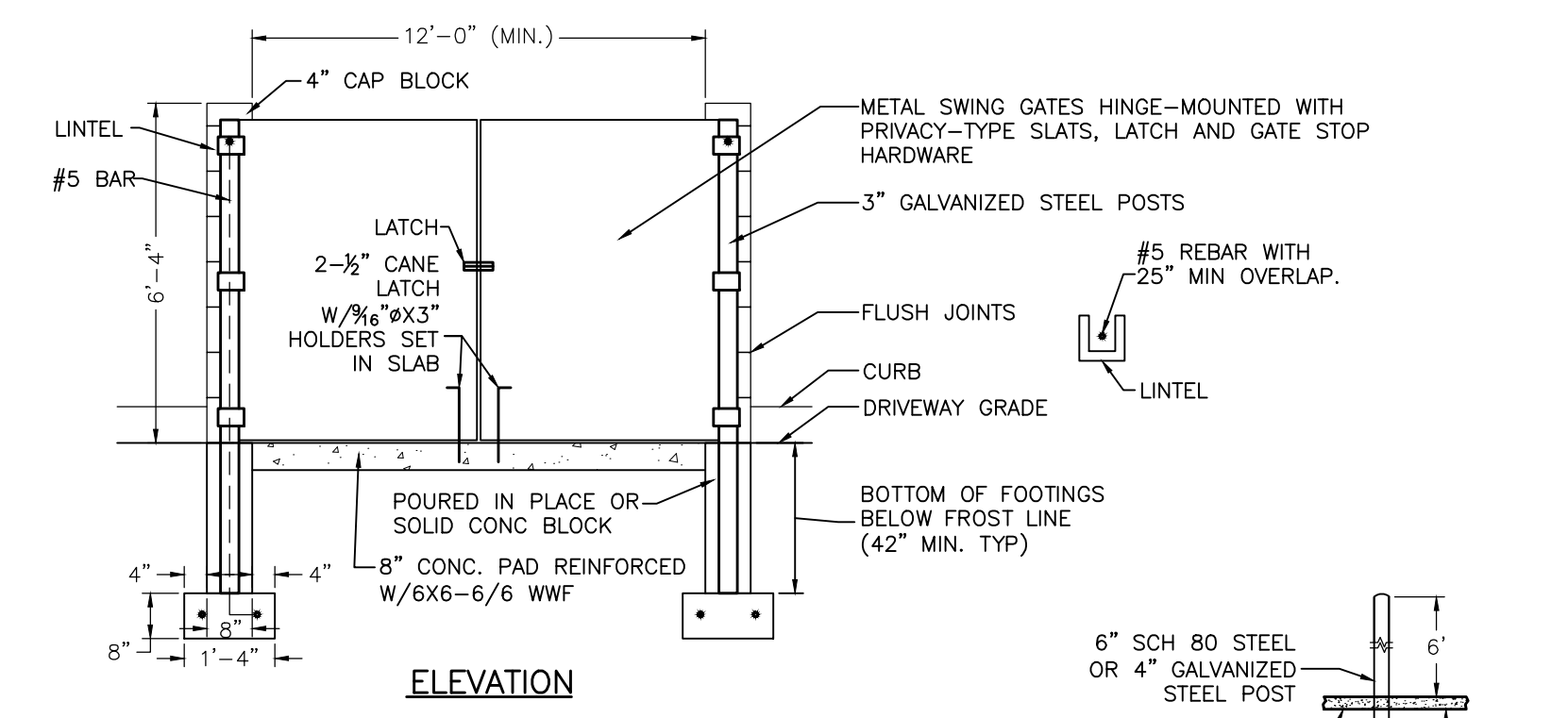
DISTANCE BETWEEN SIGNS:
SIGNS SHALL BE PLACED AS TO BE LEGIBLE FROM ONE SIGN TO THE NEXT. SIGNS SHALL GENERALLY OCCUR EVERY 100 FT. OR AS APPROVED BY THE FIRE OFFICIAL OR HIS DESIGNEE.



FIRE LANE SIGN PLACEMENT DETAIL
NOT TO SCALE



NO PARKING SIGN DETAIL
NOT TO SCALE



DUMPSTER PAD AND ENCLOSURE
NO SCALE

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ARCHITECTS
10000 WOODLAND DRIVE
ANN ARBOR, MI 48106
WWW.SCHONSHECK.COM

DETAIL
ADDITION FOR: A&F WOOD PRODUCTS
PART OF NE 1/4, SEC. 15, T2N-R5E
GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

REVISIONS	DATE
REVISED PER REVIEW COMMENTS	5/23/17
REVISED PER COMMENTS	5/24/2017

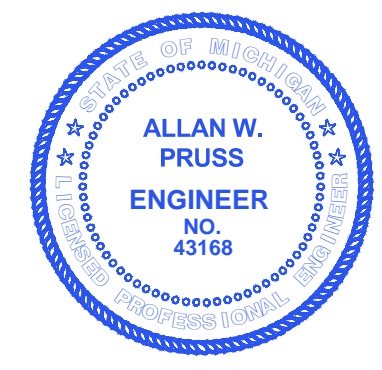
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SCALE: 1" = 30'

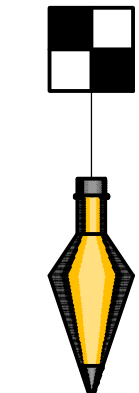
JOB# : 17-046

DRWG. by : DC
CHECK : AP
DATE : 5/2/2017
17-046_C-7.0_Details
SHEET : 11 OF 13

C-7.1



Allan W. Pruss



GENERAL NOTES

- All construction and materials shall be in accordance with the current standards and specifications of the local municipality, the County D.P.W., the County Drain Commissioner, Detroit Metro Water & Sewerage Department, Michigan Department of Transportation, and the Department of Environment, Quality, the State of Michigan, and the County Road Commission where applicable.
- Rules, regulations or laws of any controlling Governmental Agency shall govern, when the requirements are more stringent than the requirements of these specifications.
- Should the contractor encounter a conflict between these plans and specifications, either among themselves or with the requirements of any and all reviewing and permit-issuing agencies, he shall seek clarification in writing from the engineer before commencement of construction. Failure to do so shall be at sole expense of the contractor.
- The Contractor shall provide all materials, labor and equipment to complete the type of work which is bid, in accordance with the plans, specifications, details and to the satisfaction of the Owner and Owner's Representative.
- Contractor agrees that in accordance with generally accepted construction practices, contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property, that this requirement shall be made to apply continuously and not be limited to any particular phase of the project. Contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real or alleged, in connection with the performance of this project, excepting liability arising from the sole negligence of the design professional.
- Any work within street or highway right-of-ways shall be done in accordance with the requirements of the governmental agency having jurisdiction and shall not begin until permits have been issued by these governing authorities.
- All necessary permits, bonds, insurances, etc., shall be paid for by the Contractor.
- All elevations shown are based on benchmarks provided by the local municipality unless otherwise noted on the drawings.
- All items of work not specifically indicated as pay items on the drawings or in the bid package shall be considered incidental items.
- The contractor shall be responsible for dust control during the periods of construction.
- At least three (3) working days prior to any excavation, the Contractor shall contact MISS DIG (1-800-482-7171) to verify the location conditions, the protection of the work, the general and local conditions including recent climatic changes, the time of year in which construction will take place and all other matters which can in any way affect the work under this Contract.
- All properties or facilities in the surrounding areas, public or private, destroyed or otherwise disturbed due to construction, shall be replaced and/or restored to the original condition by the Contractor, at no additional cost to the owner.
- Manhole, catch basin, gate well rims and hydrant finish grade elevations must be as-built and approved by the Engineer before the Contractor's work is considered complete. Agency requirements for record drawings also apply.
- Contractor shall remove and dispose of off-site any trees, brush, stumps, trash or other unwanted debris, at the Owner's direction, including old building foundations and floors. The burning or burying of trash, stumps or other debris will not be allowed.
- All references to M.D.S.T. specifications refer to the most current Standard Specifications For Construction.
- All Contractors bidding this project shall have visited the site to become thoroughly familiar with the site and the conditions in which they will be conducting their operations. Any variance found between the plans and existing conditions shall be reported immediately to the Design Engineer.
- The locations and dimensions shown on the plans for existing underground facilities are in accordance with available information provided by the utility companies and specifications for uncovering and measuring. The Design Engineer does not guarantee the accuracy of this information or that all existing underground facilities are shown.
- The Owner may employ and pay for the services of an Engineer to provide on-site inspection and verify in the field that all backfill, pavements and concrete curb and gutter have been placed and compacted in accordance with the plans and specifications. It is the opinion of the Engineer, the work does not meet the technical or design requirements stipulated for the work, the Contractor shall make all necessary adjustments as directed by the Engineer. The Contractor shall make no deviations from the contract documents without specific written approval of the Owner.
- All excavated material removed from the sanitary sewer, storm sewer and water main trenches under, through and within 3 feet of the 45' zone of influence line of existing or proposed paving, sidewalk areas and/or other structures, shall be backfilled, shall be removed from these areas and disposed of.
- The Contractor shall restore to their present conditions any pavement or public right-of-way that is disturbed by the operations of the Contractor. All restoration work in public rights-of-way shall be performed to the satisfaction of the government agencies having jurisdiction.
- The Contractor shall provide all necessary barricades, signage and lights to protect the work and safely maintain traffic, in accordance with local requirements and the Manual of Uniform Traffic Control Devices (latest edition).
- O.S.H.A. safety requirements – all work, work practice, and materials shall comply with all applicable local, state and federal safety, occupational, health and environmental regulations and also NFPA and ANSI codes as applicable. All work inside a confined space such as manholes or underground structures shall be coordinated with utility worker and all worker safety requirements strictly enforced. Land shall be the sole responsibility of the contractor.
- It shall be the contractor's responsibility to arrange for or supply temporary water service, sanitary facilities and electricity.
- Contractor shall provide for the continuous operation of existing facilities without interruption during construction unless specifically authorized otherwise by the respective authority.
- The contractor shall note existing underground utilities in the project plans. Backfill trenches for existing utilities shall be examined critically. Any trench which, in the opinion of the soils engineer are found to be soft, unstable, or unsuitable material shall be completely excavated and backfilled with suitable material. Sand backfill shall be used under pavement or within the 1 on 1 land influence of pavement or structures.

SECTION 02015 – EROSION CONTROL STANDARDS

- All erosion and sediment control work shall conform to standards and specifications of the jurisdictional agency under Part 91 of Act 451 of 1994, as amended.
- Under "Michigan's Permit-By-Rule For Construction Activities", promulgated under Act 245, Public Acts of 1929 as amended, an NPDES Storm Water Discharge Coverage permit is required for any construction activity that disturbs 1 acre or more of land. A certified storm water operator is required for the supervision and inspection of the soil erosion control measures at the construction site in accordance with the provisions of these rules.
- Daily inspections shall be made by contractor while working to determine the effectiveness of erosion and sediment control measures. Any necessary repairs shall be performed without delay. All soil erosion control provisions shall be properly maintained during construction.

SECTION 02015 – EROSION CONTROL STANDARDS, CONTINUED

- Erosion and any sedimentation from work on this site shall be contained on the site and allowed to collect on any off-site areas or in waterways. Waterways include both natural and man-made open ditches, streams, storm drains, lakes, and ponds.
- Contractor shall apply temporary erosion and sedimentation control measures when required and as directed on these plans. Contractor shall remove temporary measures as soon as permanent stabilization of slopes, ditches, and other earth change areas have been completed.
- Staging the work will be done by the contractor as directed in these plans and as required to ensure progressive stabilization of disturbed earth.
- Soil erosion control practices will be established in early stages of construction by the Contractor. Sediment control practices will be applied as a perimeter defense against any transporting of silt off the site.
- Dust shall be controlled by watering or by other approved means throughout all construction operations.
- Permanent soil erosion control measures for slopes, channels, ditches or any disturbed areas shall be completed within 5 calendar days after final grading or the final earth change has been completed. When it is not possible to permanently stabilize a disturbed area after an earth change has been completed or where significant earth change has been completed or where significant earth change activity ceases, temporary soil erosion control measures shall be implemented within 5 calendar days. All temporary soil erosion control measures shall be maintained until permanent soil erosion control measures are implemented and established before a certificate of compliance is issued.

SECTION 02200 – GRADING AND EARTHWORK SPECIFICATIONS

- Although a sub-surface investigation may have been made by the owner, the bidder and any sub-contractors shall make a personal investigation of site and existing surface and sub-surface conditions. The contractor is responsible to acquaint himself with conditions of the work area. The contractor is advised to determine the sub-surface soil conditions and ground water conditions to his own satisfaction prior to bidding. No modifications to the unit prices bid for any item will be made due to variable sub-surface conditions. Dewatering, if determined necessary by the contractor, by well pointing or deep wells will be incidental to the installation cost of the item.
- The Contractor shall be responsible for having determined his satisfaction prior to the submission of his bid the confirmation of the ground, the character and quality of the substrata, the types and quantities of materials to be encountered, the nature of the groundwater conditions, the protection of the work, the general and local conditions including recent climatic changes, the time of year in which construction will take place and all other matters which can in any way affect the work under this Contract.
- Prior to commencing the excavation the contractor shall submit a plan of his proposed operations and time schedule to the Owner & Owner Representative for their approval.
- The Contractor shall consider, and his plan for excavation shall reflect, the equipment and methods to be employed in the excavation and what methods will be used when wet conditions are encountered requiring groundwater control or other moisture conditioning. The Contractor shall submit an outline of his earthwork methods which shall take into account the overall construction schedule. The prices established in the proposal for the work to be done shall reflect all costs pertaining to the work. No claims for extras based on substrata or groundwater table conditions or moisture conditioning will be allowed.
- The Contractor shall keep informed and the Owner's Representative informed at all times as to a "fill surplus or shortage" situation. Shortage or surplus of suitable material at the conclusion of the grading and earthwork operation shall be the sole responsibility of the Contractor and he will be required to supply the deficiency or dispose of the surplus without additional cost to the Owner.
- The Contractor shall remove vegetation, debris, unsatisfactory soil materials, obstructions, and other deleterious materials from ground surface prior to cut or fill operations.
- Materials for fill or backfill required to grade the site and achieve design elevations shall be either on or off-site soils which are free of organic matter and debris. No topsoil shall be used as engineered fill.
- No fill may be placed until the exposed surfaces have been approved by the Geotechnical Engineer. All fill materials shall be approved by the Geotechnical Engineer prior to placement.
- If any unknown subsurface structures are encountered during construction, they shall be immediately brought to the attention of the Owner's representative and Design engineer prior to proceeding.
- All fill material shall be placed and compacted at the optimum moisture content or as directed by the Geotechnical Engineer.
- No frozen material shall be used as fill nor will any fill be placed on a frozen base.
- No rock or similar material greater than 6" diameter shall be placed in the fill unless recommendations for such placement have been submitted by the Geotechnical Engineer in advance and approved by the Owner and Owner's Representative.
- Compact fill material to at least the following percentage of Maximum Dry Density, as determined by ASTM D-1557 (Modified Proctor). No deviation from these compaction densities will be allowed unless specifically recommended by the Geotechnical Engineer and approved by the Owner and Owner's Representative.

FILL AREAS	% OF MAXIMUM DRY DENSITY
Fill under building (extending 5' beyond footings at a slope of 1 on 1)	95%
Fill in the upper 18" under pavement or sidewalks	95%
Fill placed under or behind retaining walls	95%
All other fill	90%

- Fill material shall be placed and compacted in lifts, that will not exceed the depth in which the compaction equipment can achieve the maximum density required for the entire depth of the material placed in the lift.
- All areas where fill has been placed or the existing soils have been disturbed shall be subject to compaction testing by the Geotechnical Engineer and shall be to the satisfaction of the Geotechnical Engineer, Owner and Owner's Representative.
- Fill material under pavements or structures shall be free of organic or deleterious materials. It shall be suitable for supporting pavements and structures without adverse shrinking or swelling.
- Fill material in berms and landscape areas shall be suitable to support growth of the landscaping materials (typical for the local climate) and as proposed by the Landscape Architect.
- The Contractor is responsible for the removal and disposal of, in a legal manner, any trees, brush or debris that are within the designated cutting and filling areas to bring the site to proposed grades.
- The Contractor shall stockpile excavated material only in designated areas as directed by the Owner or Owner's Representative.
- During the performance of site grading operations, the subgrade shall be examined critically, and any areas discovered which, in the opinion of the Owner's Representative or Geotechnical Engineer, are soft and unstable, shall be excavated to such depths as may be necessary to insure satisfactory supporting properties as determined by the Geotechnical Engineer. These areas of excavation shall be backfilled immediately and shall be brought back to the elevation of the surrounding areas with approved fill material and in accordance with the earth fill construction procedure.

SECTION 02200 – GRADING AND EARTHWORK SPECIFICATIONS, CONTINUED

- Newly graded areas shall be protected from the action of the elements. Any settlement, displacement, or warping out that may occur prior to commencing the next phase of construction shall be repaired, and grades reestablished to the required elevations and slopes.
- The finished subgrade surface shall be shaped to indicated profiles and shall be reasonably smooth and free from irregular surface changes and shall be no more than 1 inch above or below the indicated subgrade elevations.
- The grading Contractor shall backfill all parking lot planters and lawn areas to within 2 inches of the top adjacent curb grades. The top 4 inches minimum shall be topsoil, free from debris and stones larger than 1 inch in diameter.
- The Contractor shall provide all necessary pumps, ditching, well point systems and other means for removing water from excavations, trenches, subgrades and other parts of the work. The Contractor shall continue de-watering operations until the water has been removed entirely. Upon completion of water removal the Contractor shall take appropriate action to dry the soils, regrade to proposed elevations and compact soils to the satisfaction of the Geotechnical Engineer and Owner's Representative.
- The Contractor shall dispose of water in a safe and sanitary way to prevent flooding or injury to public or private property and shall obtain approval of the local governing authority before discharging run-off water to their system.
- The Contractor shall provide a smooth transition between existing grades and new grades.

SECTION 02500 – STORM SEWER SPECIFICATIONS

- These specifications shall be used in conjunction with the General Specifications and the Specifications and Detail Sheets of the governing agencies. If any conflict is found between the specifications, the stricter specifications shall be followed.
- Contractor shall furnish certified evidence that all material tests and inspections have been performed and that the product has been manufactured in compliance with the applicable specifications.
- Proper implements, tools and facilities shall be provided and used for unloading and distributing materials along the line of work. Any pipe or fitting damaged in transportation or handling shall be rejected and immediately removed from the job site.
- The Contractor shall be responsible for the safe storage of all material intended for the work. He shall take all necessary precautions to prevent damage to materials, equipment and work.
- Pipe bedding, unless otherwise indicated, shall be CL II sand, crushed stone or rounded gravel and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% passing a 3/4" sieve and retained on a no. 4 sieve.
- Porous filter material for perforated subsurface drains shall be crushed rock or gravel graded between 1-1/2" and 3/4" or per plans and details.
- Backfill, unless otherwise noted, shall be coarse sand, fine gravel or earth having a low plasticity index, free of rocks, debris and other foreign materials and defined as all passing through a 3/8" sieve and not more than 10% by volume passing through a 200-mesh sieve.
- Storm sewer piping and fittings shall be of the size and type indicated on the Drawings and shall conform to the following:
 - Polvinyl chloride (PVC) and Acrylonitrile butadiene styrene ABS for pipe up to and including 10" in diameter, shall conform to ASTM D3034, SDR 23.5 for PVC pipe and ASTM D2751 for ABS pipe with elastomeric gasket joints conforming to ASTM D3212 or chemically welded pipe joints conforming to ASTM F545.
 - Reinforced concrete pipe, for pipe 12" in diameter and up, shall conform to ASTM C-76, Class IV unless modified by the Drawings. Joints shall be modified grooved tongue with rubber gasket conforming to ASTM C-443.
 - Perforated subsurface drain pipe shall be PVC conforming to ASTM D-2729 or ADS perforated, corrugated polyethylene pipe conforming to AASHTO M-294 or corrugated steel pipe. Joints for PVC and polyethylene pipe shall be prefabricated coupling with solvent weld.
- Manholes, catch basins, and inlets shall be of the size and type indicated on the Drawings and shall be constructed of the following:
 - Reinforced pre-cast concrete manhole sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478-64T.
 - Brick shall be sound, hard-burned throughout and of uniform size and quality and shall be in accordance with ASTM C-32, Grade MS.
 - Concrete masonry shall be solid pre-cast segmental units conforming to ASTM C-139.
- Iron castings shall conform to ASTM A-48, Class 30. Bearing surfaces between cast iron frames, covers and grades shall be machined, fitted together and matched-matched to prevent rocking. System identifying letters "2" high shall be stamped or cast into all covers so that they may be plainly visible.
- Castings shall be manufactured by East Jordan Iron Works, Inc., Neenah Foundry company or equal.
- Concrete and masonry materials for construction of storm drainage structures shall consist of the following:
 - Portland cement shall be standard brand of Portland cement conforming to ASTM C-150, type I or IA.
 - Fine and coarse aggregates for concrete shall be per ASTM C-33.
 - Aggregate for cement mortar shall be clean, sharp sand conforming to ASTM C-144.
 - Hydrated lime shall comply with ASTM C-207, Type S.
 - Water shall be clean and free from deleterious materials.
 - Reinforcing steel for concrete shall be intermediate-grade new billet steel conforming to ASTM A-615, Grade 40.
- Concrete, unless otherwise noted, shall have compressive strength after 28 days of 3000 psi minimum with 3" maximum slump.
 - Concrete fill below grade may be 2500 psi at 28 days.
 - Concrete, where exposed to the weather, shall be air-entrained. Air entrainment shall be accomplished by the use of additives conforming to ASTM C-260. Air content shall be 6% ± 1%. Additive shall be used strictly in accordance Manufacturer's printed directions.
- Ready-Mix Concrete shall conform to the requirements of ASTM C-94.
- Mortar shall be specified hereinafter. Use method of mixing mortar at job so that specified proportions of mortar materials can be controlled and accurately maintained during work progress. Mortar shall not be mixed greater quantities than required for immediate use amount of water consistent with satisfactory workability. Re-tampering of mortar is not permitted.
- Mortar for laying brick or concrete masonry units shall conform to ASTM C-270, Type M, average compressive strength 2500 psi minimum at 28 days. Mortar mix shall be proportioned by volume.
 - Mortar for plastering shall consist of 1 part Portland cement and 2-1/2 parts sand.
 - Mortar for grouting of rip-rap shall consist of 1 part Portland cement and 3-1/2 parts sand.
- Perform all excavating and trenching to dimensions and elevations indicated on Drawings.
- Open no more trench in advance of pipe laying than is necessary to expedite the work.
- Core shall be taken not to excavate below the depths indicated on Drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled to the proper grade with compacted bedding material, at no expense to the Owner.

SECTION 02500 – STORM SEWER SPECIFICATIONS, CONTINUED

- Where unstable soil is encountered, Contractor shall not place pipe until a solid bed has been provided.
- Excavation for drainage structures shall extend a sufficient distance from the walls and footings to allow for forms, construction of walls, connections and for inspection.
- Provide required timber sheeting, bracing and shoring to protect sides of excavation. Do not brace sheeting against pipe. Provide suitable ladders for safe entry to and exit from excavation.
- During excavation, material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of trenches to avoid overloading, and to prevent slides or cave-ins.
- When wet excavation is encountered, the trench shall be de-watered until the pipe has been laid and backfilled to a point at least 1 foot above top of pipe.
- Manholes and catch basins shall be constructed of brick, concrete masonry units or pre-cast concrete with cast iron frames, covers and manhole steps.
- The wall thickness of manholes and catch basins constructed of various materials and set at various depths shall meet these minimums. Adhere to requirements of the governing agency if they exceed these thicknesses:

Depth	Brick	Block	Pre-cast Concrete
0' - 10'	8"	6"	6"
10' - 16'	12"	8"	8"
16' - 25'	16"	12"	12"

- Whenever existing manholes or sewer pipe are to be tapped, drill holes 4" center to center, around the periphery of openings to create a plane of weakness joint before breaking section out.
- Manhole steps shall be built into and thoroughly anchored to walls. Steps shall be factory installed in pre-cast structures.
- All piping entering or leaving drainage structures shall be adequately supported by poured in-place concrete fill from pipe center to undisturbed ground.
- Set frames in full bed of stiff mortar or bituminous mastic jointing compound at final elevation.
- All timber sheeting below a plane 12" above top of pipe shall remain in place in order not to disturb pipe grading. Before backfilling, remove all other sheeting bracing and shoring.
- Bedding used for trench bottom shall be extended up the sides and carefully placed around and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% of maximum dry density as per ASTM D-1557 (Modified Proctor) until 12" of cover exists over pipe.
- Remainder of trench shall be backfilled with specified backfill material to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
- In streets, drives, parking lots and other areas to have or having improved hard surfaces, backfill shall be material specified and shall be deposited in 6" loose layers at optimum moisture content (±2%) compacted to 95% of maximum dry density per ASTM D1557. (Modified Proctor) Suitable materials found on site may be used.
- Before backfilling around drainage structures, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical or hand tampers.
- After installation of pipes and drainage structures, clean them, and adjust tops to finish grade. Pipe shall be straight between structures, with the full inside diameter visible when sighting between structures.
- Ends of headwall and end sections shall be fitted with a #4 minimum welded steel rod grating. Rods shall be spaced 6" O.C. maximum. Weld rod at all intersections. Grate shall be removable for access and cleaning.
- Rip-rap shall be laid from the bottom upward; stones shall be laid by hand with 8" minimum dimension perpendicular to grade with well-broken joints, compacted in place. All joints shall be filled with cement mortar. Surface stone to be exposed. Clean joints with wire brush.
- The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.
- All connections to existing sewers shall be incidental to the job.

SECTION 02573 – WATER MAIN SPECIFICATIONS

- Water main specifications shall be used in conjunction with the General Specifications, the watermain specifications and the detail sheets of the governing agencies. If any conflict is found between the specifications, the stricter specifications shall be followed.
- The governing agency will inspect the installation of all sanitary sewer piping.
- Proper implements, tools and facilities shall be provided and used for unloading and distributing materials along the line of work. Any pipe or fitting damaged in transportation or handling shall be rejected and immediately removed from the job site.
- The Contractor shall be responsible for the safe storage of all material intended for the work. The Contractor shall take all necessary precautions to prevent damage to materials, equipment and work.
- The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.
- It will be the responsibility of the Contractor to coordinate and schedule the sanitary sewer installation with the grading, excavation and other site utility subcontractors and the Owners Representative so as to provide for a smooth and orderly progression of the work.
- Sanitary sewer piping and fittings shall be of the size and type indicated on the drawings and shall conform to the requirements of the governing agency.
- Reinforced pre-cast concrete manhole sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478 or AASHTO M-199.
- Open no more trench in advance of pipe laying than is necessary to expedite the work.
- Core shall be taken not to excavate below the depths indicated on Drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled to the proper grade with compacted bedding material, at no expense to the Owner.
- The Contractor shall be responsible for the safe storage of all material intended for the work. The Contractor shall take all necessary precautions to prevent damage to materials equipment and work.
- Pipe bedding, unless otherwise indicated, shall be crushed stone or rounded gravel. Bedding under pipe shall be 95% passing a 3/4" sieve and retained on a No. 4 sieve; load factor shall be 1.5.
- Backfill, unless otherwise noted, shall be coarse sand, fine gravel or earth having a low plasticity index, free of rocks, debris and other foreign materials and defined as all passing through a 3/8" sieve and not more than ten percent (10%) by volume passing through a 200 mesh sieve.
- Gate wells shall be reinforced pre-cast concrete sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478.
- Thrust blocks shall be made of 3000 psi concrete wet mix.

SECTION 02573 – WATER MAIN SPECIFICATIONS, CONTINUED

- The maximum width of trench to top of pipe shall be as follows:

Pipe Diameter	Trench Width
Through 12"	36"
15" through 36"	O.D. Plus 24"
42" through 60"	O.D. Plus 30"
66" and Larger	O.D. Plus 36"
- Open no more trench in advance of pipe laying than is necessary to expedite the work.
- Core shall be taken not to excavate below the depths indicated on drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled to the proper grade with compacted bedding material, at no expense to the Owner.
- Where unstable soil is encountered, Contractor shall not place pipe until a solid bed has been provided.
- Excavation for structures shall extend a sufficient distance from the walls and footings to allow for forms, construction of walls, connections and for inspection. Drawings and specified herein:
 - Completely fill joints on pre-cast concrete sections with bituminous mastic jointing compound or joints shall be made with cement mortar with inside pointing and outside rubber wrap.
- Brick shall be wet when laid. Lay brick or concrete masonry units in mortar so as to form full bed, with end and side joints in one operation, with joints not more than 3/8" wide except when bricks or concrete masonry units are laid radially, in which case the narrowest part of joint shall not exceed 1/4". Lay in true line and, whenever practical, joints shall be carefully struck and pointed on inside.
- Protect fresh brick work from freezing, from drying effects of sun and wind, and for such time as directed by the Geotechnical Engineer. In freezing weather, hush sufficiently to remove ice and frost from brick work.
- Gate well steps shall be built into and thoroughly anchored to walls.
- All piping entering or leaving gate wells shall be adequately supported by poured-in-place concrete fill from pipe center to undisturbed ground.
- The outside surfaces of brick or concrete masonry portion of gate wells shall be plastered and trowled smooth with 1/2" layers of cement mortar.
- Set frames in full bed of stiff mortar or bituminous mastic jointing compound at final elevation.
- Place horizontal and/or vertical thrust blocks at all plugs, caps, tees and fittings. The cost of thrust blocks shall be included in the price bid per foot for water main. Thrust blocks shall not be backfilled prior to observation by the controlling governmental agency.
- In unstable soil conditions, thrust blocks shall be supported by piling driven to solid foundations by removal of the unstable soil and the replacement with ballast of sufficient stability to resist the thrusts. The cost of piling or ballast at thrust blocks shall be included in the price bid for water main.
- Place all concrete anchorages and encasements, as called for on the drawings. The cost of anchorage and encasements shall be included in the price bid for water main.
- Bedding used for trench bottom shall be extended up the sides and carefully placed around and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% of maximum dry density as per ASTM D-1557 (Modified Proctor) until 12" of cover exists over pipe.
- Remainder of trench shall be backfilled with specified backfill material to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
- In streets, drives, parking lots and other areas paved, or areas proposed to be paved, place sand backfill in 6" loose layers at optimum moisture content (±2%) and compacted to 95% of maximum dry density as determined by ASTM D-1557 (Modified Proctor).
- Before backfilling around structures, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical or hand tampers.
- Remainder of trench shall be backfilled with specified backfill material to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
- In streets, drives, parking lots and other areas paved, or areas proposed to be paved, place sand backfill in 6" loose layers at optimum moisture content (±2%) and compacted to 95% of maximum dry density as determined by ASTM D-1557 (Modified Proctor).
- Before backfilling around structures, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical or hand tampers.
- The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.

- All sewers over 24" diameter shall be subjected to infiltration tests. All sewers of 24" diameter or smaller, where ground water level above the top of sewer is over seven (7) feet, shall be subjected to an infiltration test.
- All sewers of 24" diameter or less, where the ground water level above the top of the sewer is seven (7) feet or less, shall be subject to air tests or exfiltration tests.
- No sanitary sewer installation or portion thereof shall have infiltration exceeding 100 gallons per inch diameter per mile of pipe per 24 hour period.

SECTION 02583 – SANITARY SEWER SPECIFICATIONS

- These specifications shall be used in conjunction with the General Specifications and the Sanitary Sewer Specifications and Detail Sheets of the governing agencies. If any conflict is found between the specifications, the stricter specifications will be followed.
- The governing agency will inspect the installation of all sanitary sewer piping.
- Proper implements, tools and facilities shall be provided and used for unloading and distributing materials along the line of work. Any pipe or fitting damaged in transportation or handling shall be rejected and immediately removed from the job site.
- The Contractor shall be responsible for the safe storage of all material intended for the work. The Contractor shall take all necessary precautions to prevent damage to materials, equipment and work.
- The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.
- It will be the responsibility of the Contractor to coordinate and schedule the sanitary sewer installation with the grading, excavation and other site utility subcontractors and the Owners Representative so as to provide for a smooth and orderly progression of the work.
- Sanitary sewer piping and fittings shall be of the size and type indicated on the drawings and shall conform to the requirements of the governing agency.
- Reinforced pre-cast concrete manhole sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478 or AASHTO M-199.
- Open no more trench in advance of pipe laying than is necessary to expedite the work.
- Core shall be taken not to excavate below the depths indicated on Drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled to the proper grade with compacted bedding material, at no expense to the Owner.
- The Contractor shall be responsible for the safe storage of all material intended for the work. The Contractor shall take all necessary precautions to prevent damage to materials equipment and work.
- Pipe bedding, unless otherwise indicated, shall be crushed stone or rounded gravel. Bedding under pipe shall be 95% passing a 3/4" sieve and retained on a No. 4 sieve; load factor shall be 1.5.
- Backfill, unless otherwise noted, shall be coarse sand, fine gravel or earth having a low plasticity index, free of rocks, debris and other foreign materials and defined as all passing through a 3/8" sieve and not more than ten percent (10%) by volume passing through a 200 mesh sieve.
- Gate wells shall be reinforced pre-cast concrete sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478.
- Thrust blocks shall be made of 3000 psi concrete wet mix.

SECTION 02583 – SANITARY SEWER SPECIFICATIONS, CONTINUED

- Provide required timber sheeting, bracing and shoring to protect sides of excavation. Do not brace sheeting against pipe. Provide staging and suitable ladders where required.
- During excavation, material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of trenches to avoid overloading, and to prevent cave-ins.
- When wet excavation is encountered, the trench shall be de-watered until the pipe has been laid and backfilled to a point at least 1 foot above top of pipe.
- Sanitary Sewer crossings shall be made with 18" of vertical clearance from another utility and shall be made without placing point loads on either pipe. Construct saddles, or place protective concrete cap to prevent damage.
- All connection branches in the sewer pipe shall be securely and completely fastened to, or formed in, the wall of the pipe during the course of manufacture. All pipe containing such connection branches shall be installed with the main sewer. The proposed location of the eye shall be per plan or as directed by the Owner or Owner's Representative.
- Service leads shall terminate (with an approved stopper) per plans or as directed by Owner or Owner's Representative.
- Each riser and/or service lead shall be marked with a 2 inch x 2 inch x 8 foot long yellow marker, placed vertically at the end of the pipe.
- Downspouts, weep tile, footing drains, or any conduit, that carries storm or ground water shall not be allowed to discharge into a sanitary sewer.
- The connection to an existing sanitary sewer manhole shall be made in strict conformance with the plans and specifications, with all work being done in a workmanlike manner. This work shall include the construction of a proper channel in the existing manhole at which the connection is to be made, to direct the flow of incoming fluids to the existing outlet in a manner which will tend to create the least amount of turbulence. Any portion of the existing structure which would interfere with such construction shall be removed. The cost of all connections shall be included in the Contract price for the main sewer unless otherwise provided in the Proposal.
- When connections are made with sewers or drains carrying fluids, special care must be taken that no part of the work is built under water. A flume or dam must be installed and pumping maintained, if necessary, and the new work kept dry until completed and any concrete or mortar has set.
- All timber sheeting below a plane 12" above top of pipe shall remain in place in order not to disturb pipe grading. Before backfilling, remove all other sheeting, bracing and shoring.
- Bedding used for trench bottom shall be extended up the sides and carefully placed around and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% of maximum dry density as per ASTM D-1557 (Modified Proctor) until 12" of cover exists over pipe.
- Remainder of trench shall be backfilled with specified backfill material as approved by the Geotechnical Engineer to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
- In streets, drives, parking lots and other areas to have or having improved hard surfaces, backfill shall be material specified and shall be deposited in 6" loose layers at optimum moisture content (±2%) and compacted to 95% of maximum dry density as determined by ASTM D-1557 (Modified Proctor). Suitable materials found on site may be used if approved by the Geotechnical Engineer and Owner's Representative. Where service or utility lines cross pavement or sidewalk, bedding shall be carried to 3 feet behind the curb line or 3 feet behind the side of sidewalk farthest away from the proposed pavement.
- Before backfilling around manholes, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical and hand tampers.
- Sanitary sewer manholes must be water-tight and shall be precast sections with modified grooved tongue joints with rubber gaskets, conforming to ASTM designation C478. Cast iron steps shall be cast into the manhole sections at 16" O.C. during manufacture and at 45' from the centerline of the sewer. Manhole steps shall be Neenah R-1980-E, East Jordan Iron Works, 8500 or approved equal.
- When existing reinforced concrete manholes or sewer pipes are to be tapped, a hole of the appropriate diameter, shall be core drilled, through the wall of the manhole or sewer pipe, to accept a resilient connector conforming to ASTM designation C-923. Resilient connectors shall be "Kor-N-Seal" as manufactured by "The Core and Seal Co." or approved equal.
- All sewers shall be subjected to infiltration, air or exfiltration tests or a combination thereof in accordance with the following requirements, prior to acceptance of the system and prior to removal of the bulkheads:
 - All sewers over 24" diameter shall be subjected to infiltration tests. All sewers of 24" diameter or smaller, where ground water level above the top of sewer is over seven (7) feet, shall be subjected to an infiltration test.
 - All sewers of 24" diameter or less, where the ground water level above the top of the sewer is seven (7) feet or less, shall be subject to air tests or exfiltration tests.
- No sanitary sewer installation or portion thereof shall have infiltration exceeding 100 gallons per inch diameter per mile of pipe per 24 hour period.

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SPECIFICATIONS
 ADDITION FOR: A&E WOOD PRODUCTS
 PART OF NE 1/4, SEC. 15, T2N-18E
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	REVISIONS
5/23/17	REVISED PER COMMENTS
5/24/2017	REVISED PER COMMENTS

CONT. INT.: 1 FOOT
 FIELD : DF, TG
 V. SCALE : N/A
 SCALE: N/A
 JOB# : 17-046
 DRWG. by: DC
 CHECK : AP
 DATE : 5/2/2017
 SHEET : 04-08, 08-13
 SHEET : 12 OF 103

C-8.0

SECTION 02621 - BITUMINOUS PAVING SPECIFICATIONS

SECTION 02621 - BITUMINOUS PAVING SPECIFICATIONS, CONTINUED

SECTION 02630/02641 - CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS, CONTINUED

SECTION 02650 - TRAFFIC LANE AND PARKING LOT MARKING

- 1. Reference specifications where applicable to work under this section are referred to by abbreviation as follows:
A. American Association of State Highway and Transportation Officials (AASHTO).
B. The Asphalt Institute (TAI)
C. Michigan Department of Transportation/ Current Standard Specifications For Construction (M.D.O.T.)
D. American Society for Testing Materials (ASTM)

- 2. Crushed Aggregate Base Course (CABC) shall meet the requirements of Section 8.02 of the MDOT Standard Specifications for Construction and shall consist of 21AA Crushed Aggregate.
Note: The use of slag is prohibited.

- 3. Tack Coat shall be emulsified asphalt meeting requirements of AASHTO M140 and TAI SS-1H.

- 4. Aggregate shall consist of crushed stone, crushed gravel, a mixture of uncrushed gravel with either crushed stone or crushed gravel, or other inert material having similar characteristics. It shall be composed of clean, tough, durable fragments from an excess of flat or elongated pieces, and shall be free of organic matter and deleterious substances and meet the requirements of MDOT Standard Specifications, Section 8.02.

- 5. Fine aggregate shall be well graded from coarse to fine and consist of natural sand, stone screenings, or a blend of natural sand and stone screenings. It shall be composed of round surfaced and angular grains of quartz or other hard durable rock and meet the requirements of MDOT Standard Specifications, Section 8.02.

- 6. Asphalt cement shall comply with the requirements of AASHTO M226 (ASTM 3381) for bituminous concrete surface course and surface treatment.

- 7. Bituminous Concrete shall comply with MDOT Section 7.10 of Standard Specifications for Construction.

- 8. Bituminous Leveling Course shall be MDOT 1100L, 20AA mix.

- 9. Bituminous wearing course shall be MDOT 1100T, 20AA mix.

- 10. The Contractor shall submit, to the Owner, two copies of materials certificates signed by Material Producer and Contractor. Certificates shall state that each material item meets specified requirements.

- 11. The Contractor shall submit to the Geotechnical Engineer, job-mix formulas for each required asphalt aggregate mixture. Mix designs shall be within allowable tolerances as specified for the particular application.

- 12. Subgrade preparations shall consist of the final machining of the subgrade immediately prior to placing the bituminous base course. The subgrade shall be compacted per plans and details. The subgrade shall be true to line and grade.

- 13. Crushed Aggregate Base Course shall be compacted to a density equal to at least 95 percent of the maximum dry density as determined by ASTM D-1557 (Modified Proctor).

- 14. Bituminous concrete pavement construction methods shall conform to applicable portions of Section 4.00 of the MDOT Standard Specifications for Construction.

- 15. The Contractor shall not place the Aggregate Base Course or the Bituminous base Course prior to the approval of the subgrade by the Geotechnical Engineer.

- 16. Each lift and course of bituminous concrete shall be approved by the Geotechnical Engineer, prior to the placement of a succeeding course or lift.

- 17. Apply bituminous tack coats only when temperature has not been below 35 degrees F. for 12 hours immediately prior to application. Construct Bituminous Concrete Wearing Course only when atmospheric temperature is above 40-degrees F. and proceeding course or lift is clean and dry. Base course may be laid when temperature is above 35 degrees F. and rising and approved by the Geotechnical Engineer.

- 18. The Bituminous Concrete shall be transported from the mixing plant to the point of use in vehicles conforming to the requirements of Section 4.00 of the MDOT Standard Specifications for Construction. Deliveries shall be scheduled so that spreading and rolling of Bituminous Concrete prepared for one day's run can be completed during daylight, unless adequate artificial lighting is provided. Hauling over freshly placed Bituminous mat shall not be permitted until the Bituminous Concrete has been compacted, as specified, and allowed to cool to atmospheric temperature.

- 19. Upon arrival, the Bituminous Concrete shall be spread to a thickness not to exceed 3-inches and to the full width by an approved Bituminous Paver. It shall be struck off in a uniform layer of such depth that when the work is completed, it shall have the required thickness and conform to the grade and contour indicated. The speed of the paver shall be regulated to eliminate pulling and tearing of the Bituminous Mat. Unless otherwise directed, placement of the Bituminous Concrete shall begin along the centerline of a crowned section or on the high side of areas with a one-way slope. The Bituminous Concrete shall be placed in consecutive adjacent strips having a minimum width of 10 feet, except where edge lanes require less width to complete the area. Transverse joints in adjacent lanes shall be offset a minimum of 10 feet.

- 20. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the Bituminous Concrete may be spread and raked by hand tools.

- 21. The Bituminous Concrete shall be placed at a temperature of not less than 250 nor higher than 350 degrees F. or as directed by the Geotechnical Engineer.

- 22. The Bituminous Concrete mixture shall be thoroughly and uniformly compacted by rolling. The surface shall be rolled when the Bituminous Mat has attained sufficient stability so that the rolling does not cause undue displacement, cracking and shoving. The sequence of rolling operations shall be at the discretion of the Contractor.

- 23. The speed of the roller shall, at all times, be sufficiently slow to avoid displacement of the hot bituminous concrete. Any displacement occurring as a result of reversing the direction of the roller, or from any other cause, shall be corrected at once.

- 24. Sufficient rollers shall be furnished to handle the output of the plant. rolling shall continue until all roller marks are eliminated, the surface is of uniform texture and true to grade and cross-section, and the required field density is obtained.

- 25. Tack coat shall be applied to the surface of previous lifts and courses of Bituminous Concrete and to surfaces abutting or projecting into the Bituminous Concrete.

- 26. Immediately before placing a succeeding lift or course of bituminous concrete the preceding lift or course shall be cleared of any debris by appropriate methods.

- 27. To prevent adhesion of the Bituminous Concrete to the roller, the wheels shall be kept properly moistened, but excessive water will not be permitted.

- 28. In areas not accessible to the roller, the Bituminous Concrete shall be thoroughly compacted with hot hand tampers.

- 29. Any Bituminous Concrete that becomes loose and broken, mixed with dirt, or in any way defective shall be removed and replaced with fresh hot Bituminous Concrete and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.

- 30. The Contractor shall provide at least two rollers for each paver operating on the work. The Contractor shall use additional rollers as required to obtain the specified pavement density.

- 31. The Contractor shall carefully make joints between old and new pavements, or between successive days' work, to ensure a continuous bond between adjoining work. Construct joints to have the same texture, density and smoothness as other sections of the Bituminous Concrete Course. The Contractor shall clean contact surfaces of sand, dirt, or other objectionable material before making the joint.

- 32. The Contractor shall test the finished surface of each Bituminous Concrete Course for smoothness, using a 10 foot straightedge applied parallel with and at right angles to centerline of paved area. Surface shall not be acceptable if exceeding the following tolerances for smoothness.
A. Leveling Course Surface: 1/4 inch, plus or minus 1/4 inch.
B. Surface Course: 1/4 inch

- 33. The Contractor shall test crowned surfaces with a crown template, centered and at right angles to the crown. Surfaces will not be acceptable if the finished crown surfaces vary more than 1/4 inch from the crown template.

- 34. After final rolling, the Contractor shall not permit vehicular traffic on the Bituminous Concrete Pavement until it has cooled and hardened, and in no case sooner than six hours or as directed by the Geotechnical Engineer.

- 35. The aggregate base must extend a minimum of 1' behind the back-of-curb around the perimeter of the parking lot and drives

SECTION 02630/02641 - CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS

- 1. These Specifications shall govern the construction of all pavements, curb and gas, sidewalks, service walks, driveway approaches, and loading dock areas, as indicated on the Drawings.

- 2. Reference specifications where applicable to work under this section are referred to by abbreviation as follows:
A. American Association of State Highway and Transportation Officials (AASHTO).
B. American Concrete Institute (ACI)
C. Michigan Department of Transportation/ Current Standard Specifications For Construction (M.D.O.T.)
D. American Society for Testing and Materials (ASTM)

- The fine aggregate shall meet all requirements of Section 8.02 of M.D.O.T. Specification for No. 2NS Natural Sand.

- The coarse aggregate shall meet all requirements of Section 8.02 of M.D.O.T. Specifications for No. 6AA Course Aggregate.

- 3. The Contractor shall submit, to the Owner, two copies of materials certificates signed by Material Producer and Contractor. Certificates shall state that each material item meets specified requirements.

- 4. The Contractor shall submit, to the Geotechnical Engineer, job-mix formulas for each required cement-aggregate mixture. Mix designs shall be within allowable tolerances as specified for the particular application.

- 5. Concrete mix shall be air-entrained and proportioned to provide the following:
A. Compressive strength at 28 days: 3500 psi min., or as indicated on plans.
B. Total air content by volume: 5% to 8%.

- C. Slump 3 inch maximum, or as indicated on plans.

- 6. The Contractor shall at his expense furnish samples of fresh concrete and provide safe and satisfactory facilities for obtaining the samples.

- 7. Construct concrete curbing only when ground temperature is above 35 degrees F. and base is dry.

- 8. All cement used in curb construction shall be Portland Cement, Type I or IA ASTM C-150.

- 9. Water used in concrete shall be clean, free from oil, acids, strong alkalis or vegetable matter and potable. If Municipal water is used in the concrete, all necessary permits shall be obtained from the Municipal Water Department.

- 10. Air Entraining Admixture shall be in accordance with ASTM C-260.

- 11. All ready-mixed concrete suppliers must be approved by the Owner. Concrete shall be manufactured and delivered to the job site by a ready-mixed concrete manufacturer thoroughly experienced in ready-mixed concrete. If requested by the Owner, submit a written description of proposed ready-mixed concrete Manufacturer, giving qualifications of Personnel, location of batching plant, list of Projects similar in scope of specified work, and other information as may be requested by the Owner.

- 12. The Contractor shall submit a Statement of Purchase for Ready-Mixed Concrete. Prior to actual delivery of concrete, submit to the Geotechnical Engineer four copies of Statement of Purchase, giving the dry weights of concrete and saturated surface dry weights of fine and coarse aggregates and quantities, type and name of admixtures (if any) and of water per cu.yd., that will be used in the manufacture of the concrete. The Contractor shall also furnish evidence satisfactory to the Geotechnical Engineer that the materials to be used and proportions selected will produce concrete of the quality specified. Whatever strengths are obtained, the quantity of cement used shall not be less than the minimum specified.

- 13. Ready-Mixed Concrete Delivery Tickets: Submit one copy of each delivery ticket to the Geotechnical Engineer and Contractor in accordance with Section 16 of ASTM C94.

- 14. Ready-Mixed concrete shall be batched, mixed and transported in accordance with ASTM C94, and comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete," except as otherwise specified herein.

- 15. Ready-mixed concrete shall be mixed and delivered to the point of discharge at the job by means of a ready mix concrete truck.

- 16. No water from the truck water system or elsewhere shall be added after the initial introduction of the mixing water for the batch. Under no circumstances shall the approved maximum water content be exceeded nor shall the slump exceed the maximum specified.

- 17. Discharge of the concrete shall be completed within 1-1/2 hours or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing water to the cement and aggregates or the introduction of the cement to the aggregates.

- 18. In hot weather (air temperature 80-degrees F. and above) or under conditions contributing to quick stiffening of the concrete, the time shall be reduced to one hour.

- 19. Concrete delivered in cold weather (air temperature 45-degrees F. and lower) shall have a temperature not less than 60-degrees F. at the point of discharge at the job, and in compliance with ACI 308R "Cold Weather Concreting". Concrete placing will not be permitted when the air temperature is 35-degrees F. or lower.

- 20. Concrete delivered under hot weather conditions contributing to quick stiffening of concrete, or in air temperature of 80-degrees F. and over, shall have a temperature between 60- and 80-degrees F. at the point of discharge at the job, and in accordance with ACI 305R "Hot Weather Concreting."

- 21. In no case shall the mixer or truck be flushed out onto the street pavement, in a catch basin or sewer manhole, or in any public right-of-way.

- 22. Reinforcement bars shall be per ASTM A615-84A, Grade 60 Deformed Billet - Steel Bars:

- 23. Tie Wire shall be black, annealed steel wire, not less than 16 gauge.

- 24. Bar supports shall conform to "Bar Support Specifications" contained in ACI "Manual of Standard Practice." Provide chairs, spacers and other devices suitable for proper spacing supporting and fastening reinforcing bars.

- 25. When forms are used and the curb radius is less than 200 feet, the curved alignment shall be provided for by either standard steel forms equipped with flexible liners or by flexible forms. The forms shall be of the full depth of the section. Curb and gutter forms shall be so constructed as to permit the inside of the forms to be securely fastened to the outside forms.

- 26. All new curb shall be placed only on a prepared subgrade, smooth and leveled to the grades established by the Engineer.

- 27. Compact and cut-to-grade subgrade under forms so that forms when set will be uniformly supported for the entire length. Securely stake and brace or tie forms to prevent leakage of mortar. Bracing with earth will not be permitted.

- 28. Coat surfaces of forms to be in concrete with a light clear paraffin oil or parting compound which will not stain the concrete.

- 29. The interior surfaces of concrete conveying equipment shall be maintained free of hardened concrete, debris, water, snow, ice and other deleterious materials.

- 30. Curbing may be constructed either by use of forms or by a mechanical curb and gutter paver, provided the required finish, and cross-section, as shown on Drawings are obtained. Concrete shall be placed to provide one course monolithic structure without the use of mortar topping or sand-cement drier. Concrete shall be spaded or vibrated sufficiently to ensure satisfactory consolidation.

- 31. Provide reinforcement for concrete curb as shown on the Drawings. Reinforcement shall be kept clean and free from objectionable rust. Bends or kinks in reinforcing bars shall be corrected before placing. All reinforcement shall be accurately located in forms and securely held in place before and during concrete placing, by supports adequate to prevent displacement during the course of construction.

- 32. The concrete curb surface shall be struck off the required cross-section with a template. After the concrete curb has been floated to an even surface, the contraction joint shall be cut and all slab edges rounded with a 1/2 inch radius edging tool that will finish to a width of 2 inches. After the concrete has slightly set, a broom shall be brushed lightly across the surface parallel to forms so as to impart a rough finish.

- 33. Contraction joints shall be cut in Concrete Curbing at 10' intervals. The joint shall cut 1/4 inch wide by 1/3 the depth of the concrete curb section.

- 34. Isolation joints shall be placed in curbing at tangent points in curb returns at intersections, at both sides of structures located in the line and in runs of curb at intervals not exceeding 400 feet. Isolation joints shall be 1" thick pre-formed joint filler strips. The strips shall extend the full depth of the concrete curb section. Isolation joints shall be placed in curb at the end of each day's pour and when abutting previously poured curb.

- 35. The curing compound shall be white membrane type and comply with ASTM C-309. It shall not allow a moisture loss of more than 0.055 g/sq/cm when applied at 200 sq/ft/gal.

- 36. All contraction joints in concrete curb sections shall be sealed with either hot poured joint sealer or cold applied joint sealer.

- 37. Slightly underfill joint groove with joint sealer to prevent extrusion of the sealer. Remove excess joint sealer materials as soon after sealing as possible.

- 38. Freshly placed concrete shall be protected as required to maintain the temperature of the concrete at not less than 50 degrees F. nor more than 80 degrees F. and in a moist condition continuously for the period of time necessary for the concrete to cure. Changes in temperature of the concrete during curing shall be as uniform as possible and shall not exceed 5 degrees F. in any one hour, nor 50 degrees F. in any 24 hour period.

- 39. Cold weather protection: When the temperature of the atmosphere is 40-degrees F. and below, the concrete shall be protected by heating, insulation covering, or combination thereof as required to maintain the temperature of the concrete at or above 50-degrees F. and in a moist condition continuously for the concrete curing period. Cold weather protection shall meet the requirements of ACI 306R "Cold Weather Concreting".

- 40. Hot Weather Protection: When the temperature of the atmosphere is 90-degrees F. and above, or during other climatic conditions which will cause too rapid drying of the concrete, the concrete shall be protected by windbreaks, shading, fog spraying light colored moisture retaining covering, or a combination of three of as required to maintain the temperature of the concrete below 80-degrees F. and in a moist condition continuously for the concrete curing period. Hot weather protection shall meet the requirements of ACI 305R "Hot Weather Concreting"

- 41. All forms, rolls and stakes shall be removed within 24 hours after placing the curb.

- 42. After completion of concrete curbing in an area, remove all weather protection materials, rubbish and debris resulting from specified work, sweep concrete curbs clean, and seal joints.

- 43. All cement used in sidewalk construction shall be Portland Cement, Type I or IA ASTM C-150.

- 44. All new walks and concrete pavements shall be placed only on a prepared subgrade smooth and leveled to the grades established by the Engineer. In clay soils the subgrade shall be excavated 2-inches below the sidewalk base and filled with approved sand meeting MDOT Class II, Sand Designation.

- 45. Construct concrete surface course only when ground temperature is above 35 degrees F. and base is dry.

- 46. Sidewalks shall pitch toward the street or away from buildings with a required cross slope of 1/8-inch per foot of width. In some extreme cases, as determined by the Engineer, the cross-slope may be increased but in no case shall it be less than 3/16-inch per foot of width.

- 47. Prior to placing the concrete, all debris, stones, dirt, etc., shall be removed from the subgrade. The subgrade shall be moistened with water in such a manner as to thoroughly wet the material without forming puddles or pockets of water. No concrete shall be placed on frozen subgrade.

- 48. Forms shall be metal or wood and of an approved section. They shall be straight, free from distortion and shall show no vertical variation greater than 1/8-inch in 10-foot lengths from the true plane surface on the top of the forms when tested with a 10-foot straightedge, and shall show no lateral variation greater than 1/4-inch in 10-feet from the true plane surface of the lateral face of the form when tested with a 10-foot straightedge. They shall be of the depth specified for the sidewalk, or concrete pavement per plans and details, and be securely held in place and true to line and grade.

- 49. The concrete shall be deposited continuously in the forms in such a manner as to avoid segregation and it shall be thoroughly tamped or vibrated so that the forms are entirely filled and the concrete thoroughly consolidated. The slabs shall be placed in sections or blocks in one operation as a monolith.

- 50. The concrete surface shall be struck off to a plane surface with a straightedge. After the concrete has been floated to an even surface, the contraction joint shall be cut and all slab edges rounded with a 1/2-inch radius edging tool that will finish to a width of 2-inches. After the concrete has slightly set, a broom shall be brushed lightly across the surface at right angles to forms so as to impart a rough finish.

- 51. Contraction joints shall be placed at right angles to the edge of the sidewalk or concrete pavement and perpendicular to the surface and at a depth of at least 1/4 the slab thickness with a minimum depth of 1-1/4-inches for sidewalks and 3-inches for concrete pavement slabs.

- 52. Contraction joints in sidewalks shall be spaced at a minimum of every 5-feet, or as shown on the plans.

- 53. Isolation papers shall be of the pre-molded, non-extruding, asphalt impregnated type, not less than 1/2-inch thick. The length shall be equal to the width of the slab, and the depth equal to the thickness of the slab plus 1-inch.

- 54. Isolation joints shall be placed at the following location for sidewalks and concrete pavements:

- A. At the back of the curb and front edge of the sidewalks and pavement slabs adjacent to each driveway approach and service walk.
B. At intervals not to exceed 50-feet in all public sidewalks.
C. At the back of the curb where the ramps extend from the key flag to the pavement.
D. Between the key flag and the ramp in all cases, except where there are existing expansion joints at the intersections of the sidewalks and the key flag.
E. At any place where a sidewalk or concrete pavement abuts a building or fixed structure.
F. At any other locations indicated on the Plan.

- 55. Contraction joints in the concrete pavement in the loading area will be as follows:

- A. Transverse joints shall be at 10-foot intervals or as shown on plans and details.
B. Longitudinal joints shall be at 12-foot intervals or as shown on plans and details.

- 56. Prior to applying joint sealer, clean joint groove of foreign matter and loose particles, and dry surface.

- 1. Provide all materials, labor, equipment, and services necessary to complete all traffic lane and parking lot markings as indicated in the Construction Documents.

- 2. Work includes, but not limited to painting of letters, markings, stripes and islands on the pavement surface applied in accordance with this Specification and at the locations shown on the Plans or as directed by the Engineer.

- 3. The paint shall meet the requirements of Federal Specification TT-P-115C(3), with or without reflectorized beads as required on the Plans.

- 4. Color shall be as specified on the Plans or as follows:
A. Traffic lane striping shall be white or yellow reflectorized, as shown on the Plans.

- B. Traffic marking and curb faces shall be white unless noted otherwise.

- C. Parking lot striping shall be white, unless noted otherwise.

- D. Handicap stall striping meeting current ADA requirements shall be blue unless noted otherwise.

- 5. The painting shall be performed only when the existing surface is dry and clean, when the atmospheric temperature is above 40-degrees F. and when the weather is not excessively windy, dusty or foggy.

- 6. All equipment for the Work shall be approved by the Contractor and shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, and such auxiliary hand painting equipment as may be necessary to satisfactorily complete the job.

- 7. The mechanical marker shall be an approved atomizing spray-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall be designed so as to apply markings of uniform cross-sections and clear-cut edges without running or spattering and within the limits for straightness set forth herein. When needed, a dispenser shall be furnished, which is properly designed for attachment to the mechanical marker and suitable for dispensing the required quantity of reflective beads.

- 8. Suitable adjustments shall be provided on the sprayer/sprayers of a single machine or by furnishing additional equipment for painting the width required.

- 9. Immediately before application of the paint, the existing surface shall be dry and entirely free from dirt, grease, oil, acids, debris, or other foreign matter which would reduce the bond between the coat of paint and the pavement. The surface shall be thoroughly cleaned by sweeping and blowing as required to remove all dirt, debris and loose materials. Areas which cannot be satisfactorily cleaned by brooming and blowing shall be scrubbed as directed with a water solution of trisodium phosphate (10%Na3PO4 by weight) or an approved equal solution. After scrubbing, the solution shall be rinsed off and the surface dried prior to painting.

- 10. Existing markings or stripes which are to be abandoned or removed shall be obliterated or obscured by the best methods suited for the purpose and to the satisfaction of the Owner or Owners Representative.

- 11. The Contractor is responsible for laying out a sample section of striping which is to be approved by the Owner or Owners Representative as to quality before the Contractor may proceed with the striping. The Contractor is to insure that all subsequent striping meets the quality of the approved sample application.

- 12. On those sections of pavements where no previously applied figures, markings, or stripes are available to serve as a guide, suitable layouts and lines of proposed stripes shall be spotted in advance of the point application. Control points shall be spaced at such intervals as will ensure accurate location of all markings.

- 13. The Contractor shall provide an experienced Technician to supervise the location alignment, layout, dimensions and application of the paint.

- 14. Markings shall be applied at the locations and to the dimensions and spacing indicated on the Plans or as specified. Paint shall not be applied until the indicated alignment is laid out and the conditions of the existing surface have been approved by the Owner or Owners Representative.

- 15. The paint shall be mixed in accordance with the manufacturer's instructions before application. The paint shall be thoroughly mixed and applied to the surface of the pavement with the marking machine at its original consistency without the addition of thinner. If the paint is applied by brush, the surface shall receive two (2) coats; the first coat shall be thoroughly dry before the second coat is applied.

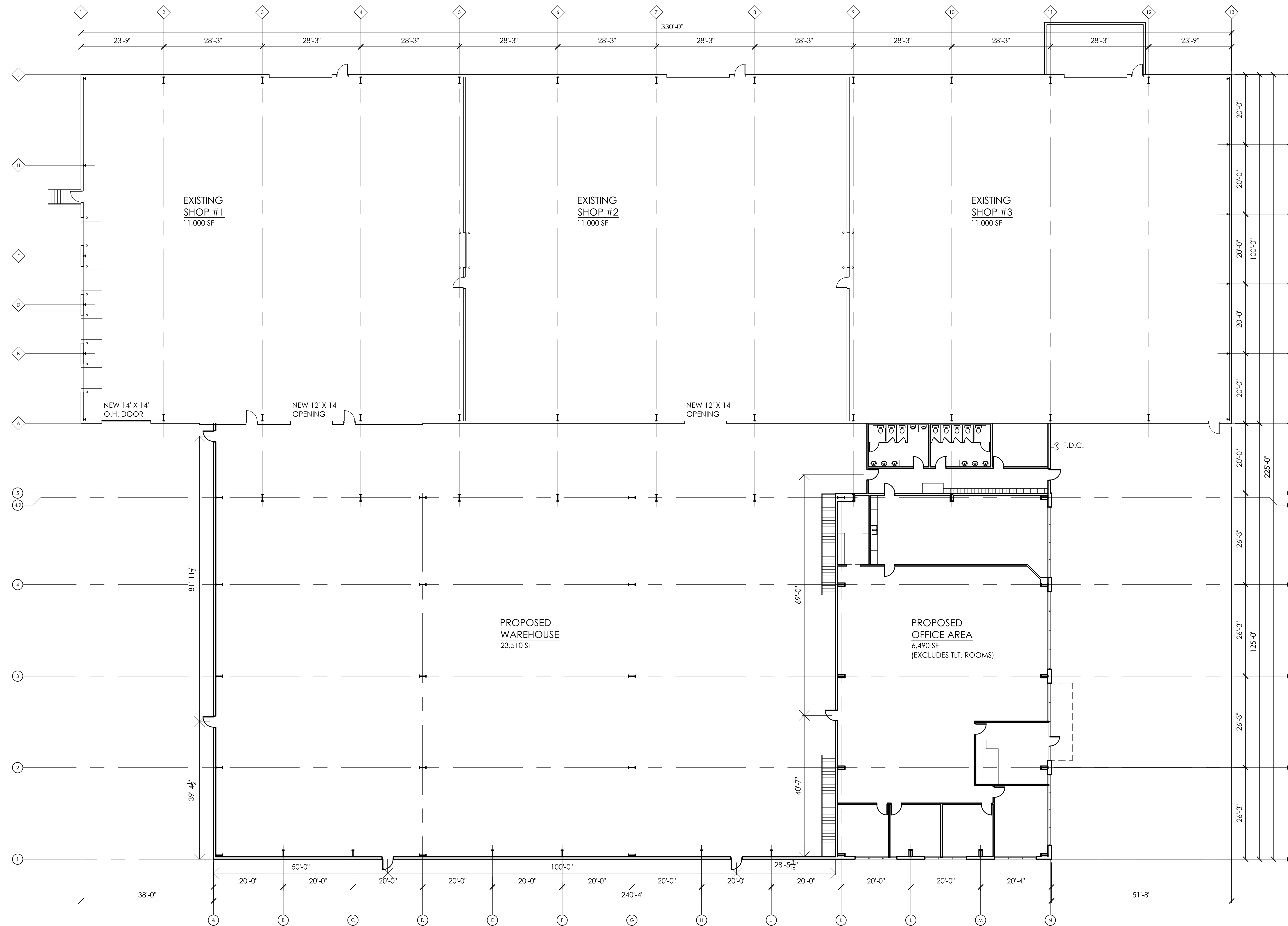
- 16. A minimum of one (1) week shall elapse between application of the bituminous seal coat, slurry seal or the placement of the bituminous surface course and the marking of the pavement. The paint shall not bleed excessively, cur, or discolor when applied to bituminous or concrete surfaces.

- 17. In the application of straight stripes, any deviation in the edges exceeding 1/2-inch in 50-foot shall be obliterated and the marking corrected. The width of the markings shall be as designated within a tolerance of 5 percent (5%). All painting shall be performed to the satisfaction of the Owner or Owners Representative by competent and experienced Equipment Operators, Laborers, and Artisans in a neat and workmanlike manner.

- 18. Paint shall be applied uniformly by suitable equipment at a rate of 0.0094 gal./s.f. for stencils and 0.00313 gal./ft. for striping. Paint application shall produce an average wet film thickness of 0.015-inches.

- 19. After applications of the paint, all markings shall be protected while the paint is drying. The fresh paint shall be protected from injury or damage of any kind. The Contractor shall be directly responsible and shall erect or place suitable warning signs, flags, or barricades, protective screens or coverings as required. All surfaces shall be protected from disfigurement by spatter, splashes, spillage, drippings of paint or other material.

MEGA ENGINEERS - SURVEYORS - CONSULTANTS - LANDSCAPE ARCHITECTS - LAND PLANNERS
SCHONSHECK, ADDITION FOR: A&E WOOD PRODUCTS PART OF NE 1/4, SEC. 15, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
SPECIFICATIONS
CLIENT:
DATE: 5/23/17, 5/24/2017
REVISIONS:
REVISED PER REVIEW COMMENTS
REVISED PER COMMENTS
CONT. INT.: 1 FOOT
FIELD : DF, TG
V. SCALE : N/A
SCALE: N/A
JOB#: 17-046
DRWG. by :DC
CHECK : AP
DATE : 5/2/2017
17-046_C-8-0_Specs
SHEET : 13 OF 13
C-8.1



OVERALL FLOOR PLAN
 SCALE: 1/16" = 1'-0"

SQUIRES
 ARCHITECTURAL
 GROUP, PLLC

223 West Grand River Avenue
 Suite 2
 Howell, MI 48843
 517-518-8843 voice
 517-518-8956 facsimile



SCHONSHECK, INC.

DESIGNERS • BUILDERS • DEVELOPERS
 50555 PONTIAC TRAIL, WIXOM, MI 48393
 (248) 669-8800 F(248)669-0850
 WWW.SCHONSHECK.COM

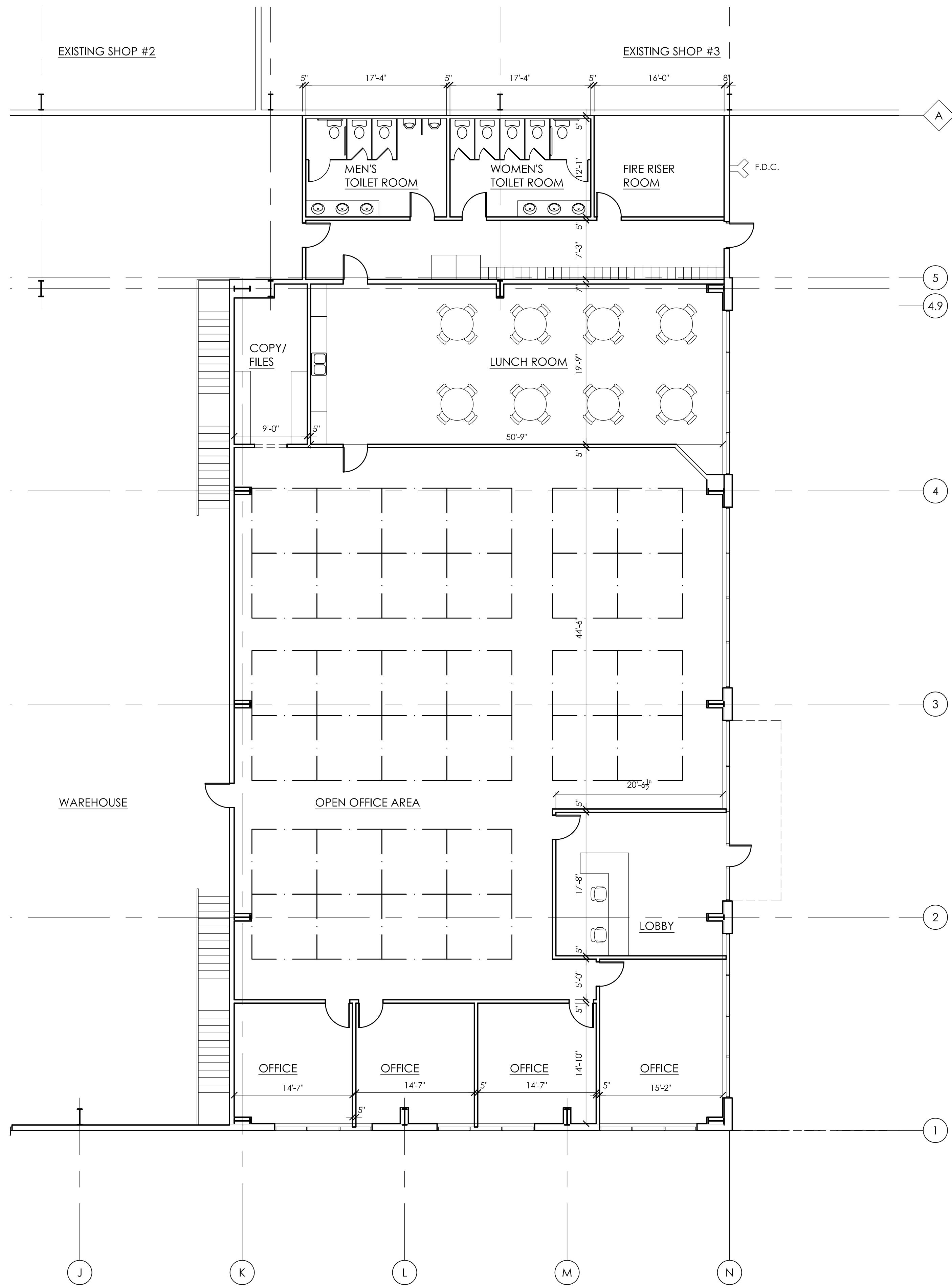


CLIENT: SCHONSHECK, INC.
 PROJECT: PROPOSED ADDITION FOR:
 A & F WOOD PRODUCTS
 5665 STERLING DRIVE
 GENOA TOWNSHIP, MICHIGAN

ISSUE	DATE
SCHEMATIC	05/23/17

NOT FOR CONSTRUCTION

PROJECT NUMBER: 17-366
 SHEET TITLE:
OVERALL FLOOR PLAN
 SHEET NUMBER:
A-101



OFFICE AREA FLOOR PLAN

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

SQUIRES
ARCHITECTURAL
GROUP, PLLC

223 West Grand River Avenue
Suite 2
Howell, MI 48843
517-518-8843 voice
517-518-8956 facsimile



SCHONSHECK, INC.

DESIGNERS • BUILDERS • DEVELOPERS
50655 PONTIAC TRAIL WIXOM, MI 48393
(248) 669-8800 F(248)669-0850
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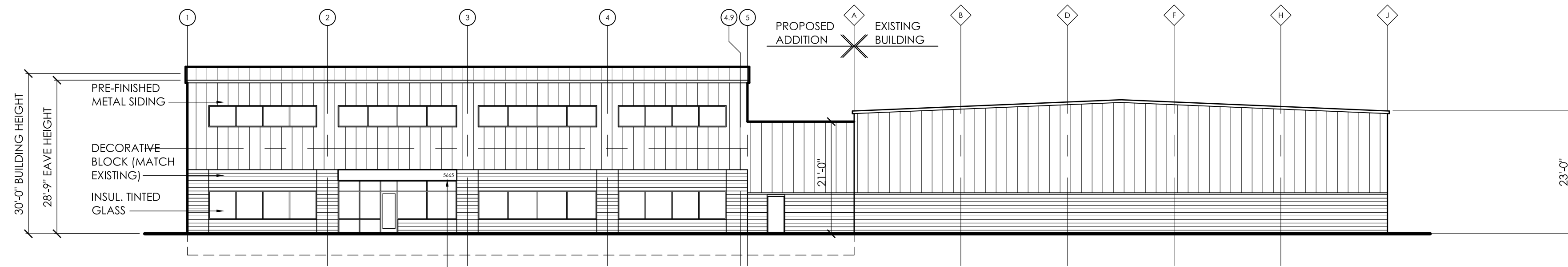


CLIENT: SCHONSHECK, INC.
PROJECT: PROPOSED ADDITION FOR:
A & F WOOD PRODUCTS
5665 STERLING DRIVE
GENOA TOWNSHIP, MICHIGAN

ISSUE	DATE
SCHEMATIC	05/23/17

NOT FOR CONSTRUCTION

PROJECT NUMBER: 17-366
SHEET TITLE:
**OFFICE AREA
FLOOR PLAN**
SHEET NUMBER:
A-102

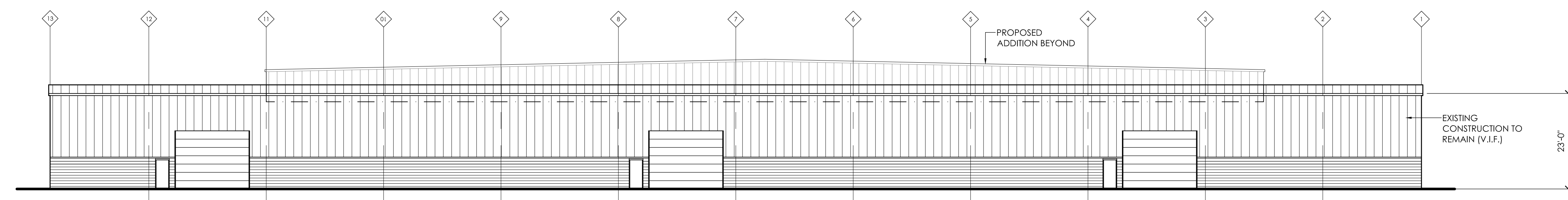


EAST ELEVATION
 0 8' 16' 32'
 SCALE: 1/16" = 1'-0"

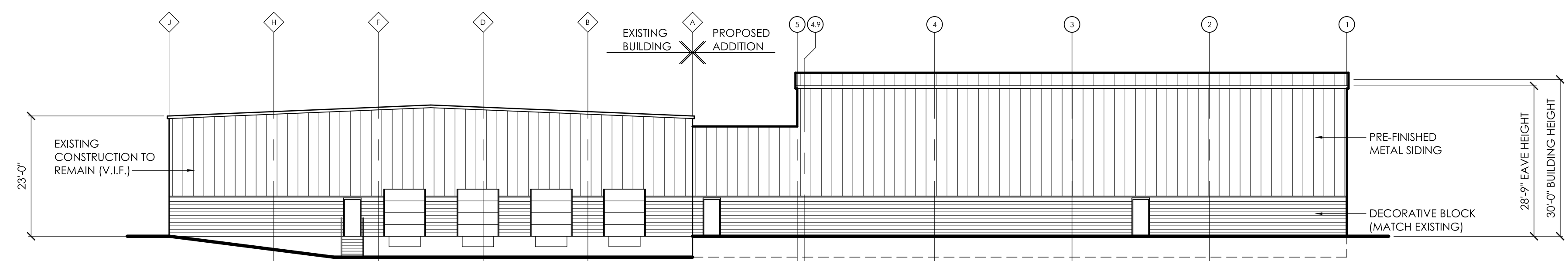
BUILDING ADDRESS:
 6' MINIMUM HEIGHT
 CONFIRM EXACT LOCATION WITH
 OWNER AND FIRE MARSHAL

EXTERIOR WALL MATERIALS:

GROSS AREA	3,386 SF	
LESS DOORS/WINDOWS	892 SF	
NET AREA	2,494 SF	
DECORATIVE BLOCK	817 SF	(33%)
METAL SIDING	1,677 SF	(67%)



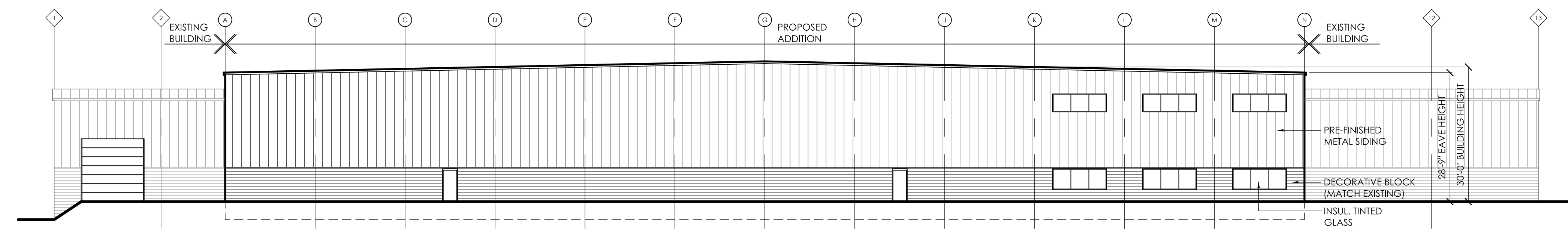
NORTH ELEVATION
 0 8' 16' 32'
 SCALE: 1/16" = 1'-0"



WEST ELEVATION
 0 8' 16' 32'
 SCALE: 1/16" = 1'-0"

EXTERIOR WALL MATERIALS:

GROSS AREA	3,386 SF	
LESS DOORS/WINDOWS	48 SF	
NET AREA	3,338 SF	
DECORATIVE BLOCK	1,365 SF	(41%)
METAL SIDING	1,973 SF	(59%)



SOUTH ELEVATION
 0 8' 16' 32'
 SCALE: 1/16" = 1'-0"

EXTERIOR WALL MATERIALS:

GROSS AREA	7,080 SF	
LESS DOORS/WINDOWS	360 SF	
NET AREA	6,720 SF	
DECORATIVE BLOCK	1,624 SF	(24%)
METAL SIDING	5,096 SF	(76%)

SQUIRES
 ARCHITECTURAL
 GROUP, PLLC

223 West Grand River Avenue
 Suite 2
 Howell, MI 48843
 517-518-8843 voice
 517-518-8956 facsimile

S

SCHONSHECK, INC.

DESIGNERS • BUILDERS • DEVELOPERS
 50655 PONTIAC TRAIL WIXOM, MI 48393
 (248) 669-8800 F(248)669-0850
 WWW.SCHONSHECK.COM



CLIENT:
 SCHONSHECK, INC.

PROJECT:
 PROPOSED ADDITION FOR:
 A & F WOOD PRODUCTS
 5665 STERLING DRIVE
 GENOA TOWNSHIP, MICHIGAN

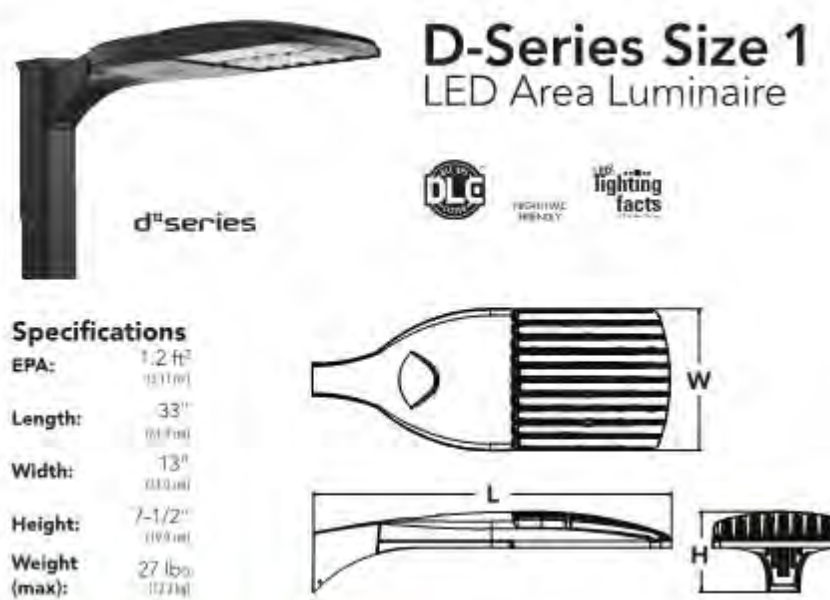
ISSUE	DATE
SCHEMATIC	05/23/17

NOT FOR CONSTRUCTION

PROJECT NUMBER: 17-366

SHEET TITLE:
BUILDING ELEVATIONS

SHEET NUMBER:
A-201



D-Series Size 1 LED Area Luminaire

Specifications
 EPA: 1.2 ft² (0.11 m²)
 Length: 33" (840 mm)
 Width: 13" (330 mm)
 Height: 7-1/2" (191 mm)
 Weight (max): 27 lbs (12 kg)

Introduction
 The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100-400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBX-D

Series	LEDs	Drive Current	Color Temperature	Distribution	Voltage	Mounting	Shipped included
DSX1 LED	Forward optics 30K 30 LEDs (over temp) 40K 40 LEDs (over temp) 60C 60 LEDs (over temp) 60C 60 LEDs (over temp)	530 350 mA 700 300 mA 1000 300 mA 1000 300 mA	30K 3000 K 40K 4000 K 50K 5000 K AMRC Amber (optional)	T15 Type I T25 Type II T35 Type III T3M Type III Medium T3W Type III Wide	120V 208V 240V 277V 347V	AWX1 120" 208" 240" 277" 347"	Shipped included DDBX Disk bracket DDBL Black DDBW White DDBM Medium DDBR Recessed DDBS Square DDBT Teardrop DDBV Vertical DDBW Wide DDBM Medium DDBR Recessed DDBS Square DDBT Teardrop DDBV Vertical

Shipped installed	Other options	Finish
PER PERM (with lock enclosure only) (over temp) PERC (with lock enclosure only) (over temp) PERD (with lock enclosure only) (over temp) PERE (with lock enclosure only) (over temp) PERF (with lock enclosure only) (over temp) PERG (with lock enclosure only) (over temp) PERH (with lock enclosure only) (over temp) PERI (with lock enclosure only) (over temp) PERJ (with lock enclosure only) (over temp) PERK (with lock enclosure only) (over temp) PERL (with lock enclosure only) (over temp) PERM (with lock enclosure only) (over temp) PERN (with lock enclosure only) (over temp) PERO (with lock enclosure only) (over temp) PERP (with lock enclosure only) (over temp) PERQ (with lock enclosure only) (over temp) PERR (with lock enclosure only) (over temp) PERS (with lock enclosure only) (over temp) PERT (with lock enclosure only) (over temp) PERU (with lock enclosure only) (over temp) PERV (with lock enclosure only) (over temp) PERW (with lock enclosure only) (over temp) PERX (with lock enclosure only) (over temp) PERY (with lock enclosure only) (over temp) PERZ (with lock enclosure only) (over temp)	AWX1 120" 208" 240" 277" 347"	AWX1 120" 208" 240" 277" 347"

Accessories

DSX1 LED 120V 350mA 30K 30 LEDs (over temp)
 DSX1 LED 120V 350mA 40K 40 LEDs (over temp)
 DSX1 LED 120V 350mA 50K 50 LEDs (over temp)
 DSX1 LED 120V 350mA AMRC Amber (optional)
 DSX1 LED 208V 300mA 30K 30 LEDs (over temp)
 DSX1 LED 208V 300mA 40K 40 LEDs (over temp)
 DSX1 LED 208V 300mA 50K 50 LEDs (over temp)
 DSX1 LED 208V 300mA AMRC Amber (optional)
 DSX1 LED 240V 300mA 30K 30 LEDs (over temp)
 DSX1 LED 240V 300mA 40K 40 LEDs (over temp)
 DSX1 LED 240V 300mA 50K 50 LEDs (over temp)
 DSX1 LED 240V 300mA AMRC Amber (optional)
 DSX1 LED 277V 300mA 30K 30 LEDs (over temp)
 DSX1 LED 277V 300mA 40K 40 LEDs (over temp)
 DSX1 LED 277V 300mA 50K 50 LEDs (over temp)
 DSX1 LED 277V 300mA AMRC Amber (optional)
 DSX1 LED 347V 300mA 30K 30 LEDs (over temp)
 DSX1 LED 347V 300mA 40K 40 LEDs (over temp)
 DSX1 LED 347V 300mA 50K 50 LEDs (over temp)
 DSX1 LED 347V 300mA AMRC Amber (optional)

One Lithonia Way • Conley, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com
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D-Series Size 1 LED Wall Luminaire

Specifications Luminaire
 Width: 13-3/4" (349 mm)
 Depth: 10" (254 mm)
 Height: 6-3/8" (163 mm)

Back Box (BBW, ELCW)
 Width: 13-3/4" (349 mm)
 Depth: 4" (102 mm)
 Height: 6-3/8" (163 mm)

Weight: 12 lbs (5.4 kg)

Weight: 5 lbs (2.3 kg)

Weight: 10 lbs (4.5 kg)

Introduction
 The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance. With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

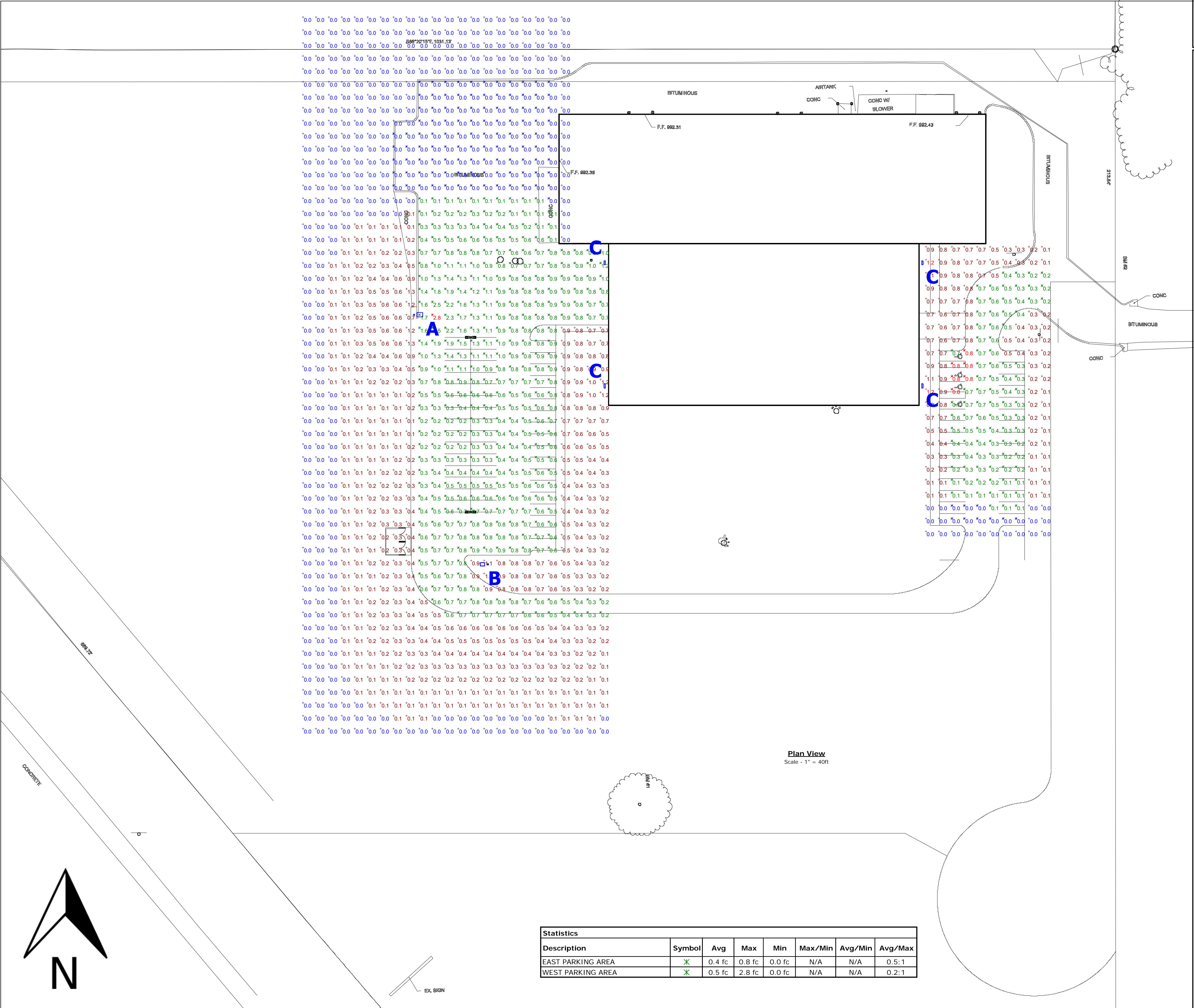
Ordering Information EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBT-XD

Series	LEDs	Drive Current	Color Temperature	Distribution	Voltage	Mounting	Control Options	Other Options	Finish (standard)
DSXW1 LED	10K 10 LEDs 20C 20 LEDs 20C 20 LEDs	350 350 mA 700 300 mA 1000 300 mA	30K 3000 K 40K 4000 K AMRC Amber (optional)	T25 Type I T35 Type II T3M Type III Medium T3W Type III Wide	120V 208V 240V 277V 347V	AWX1 120" 208" 240" 277" 347"	Shipped included FE Forward optics DMS 12-00 dimmer BW Back box PR Recessed PFR Recessed PFRM Recessed ELCW Emergency battery backup	Shipped installed DMS 12-00 dimmer BW Back box PR Recessed PFR Recessed PFRM Recessed ELCW Emergency battery backup	Shipped separately DDBX Disk bracket DDBL Black DDBW White DDBM Medium DDBR Recessed DDBS Square DDBT Teardrop DDBV Vertical DDBW Wide DDBM Medium DDBR Recessed DDBS Square DDBT Teardrop DDBV Vertical

Accessories

DSXW1 LED 120V 350mA 30K 10 LEDs
 DSXW1 LED 120V 350mA 40K 10 LEDs
 DSXW1 LED 120V 350mA AMRC Amber (optional)
 DSXW1 LED 208V 300mA 30K 10 LEDs
 DSXW1 LED 208V 300mA 40K 10 LEDs
 DSXW1 LED 208V 300mA AMRC Amber (optional)
 DSXW1 LED 240V 300mA 30K 10 LEDs
 DSXW1 LED 240V 300mA 40K 10 LEDs
 DSXW1 LED 240V 300mA AMRC Amber (optional)
 DSXW1 LED 277V 300mA 30K 10 LEDs
 DSXW1 LED 277V 300mA 40K 10 LEDs
 DSXW1 LED 277V 300mA AMRC Amber (optional)
 DSXW1 LED 347V 300mA 30K 10 LEDs
 DSXW1 LED 347V 300mA 40K 10 LEDs
 DSXW1 LED 347V 300mA AMRC Amber (optional)

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Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
EAST PARKING AREA	X	0.4 fc	0.8 fc	0.0 fc	N/A	N/A	0.5:1
WEST PARKING AREA	X	0.5 fc	2.8 fc	0.0 fc	N/A	N/A	0.2:1

GENERAL NOTE

- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
- SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
- CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

Luminaire Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Mounting Height
A	A	1	Lithonia Lighting	DSX1 LED 60C 700 40K T1FM MVOLT	DSX1 LED with 60 LEDs @ 700 mA, 4000K, TYPE FORWARD THROW MEDIUM OPTICS	LED	1	DSX1_LED_60C_700_40K_T1FM_MVOLT.ies	15995	0.99	131	30'-0"
B	B	1	Lithonia Lighting	DSX1 LED 60C 700 40K T5W MVOLT	DSX1 LED with 60 LEDs @ 700 mA, 4000K, TYPE 5 WIDE OPTICS	LED	1	DSX1_LED_60C_700_40K_T5W_MVOLT.ies	16801	0.99	131	30'-0"
C	C	4	Lithonia Lighting	DSXW1 LED 20C 1000 40K T1FM MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T1FM OPTIC, 4000K, @ 1000MA.	LED	1	DSXW1_LED_20C_1000_40K_T1FM_MVOLT.ies	7711	0.96	73.2	28'-0"



















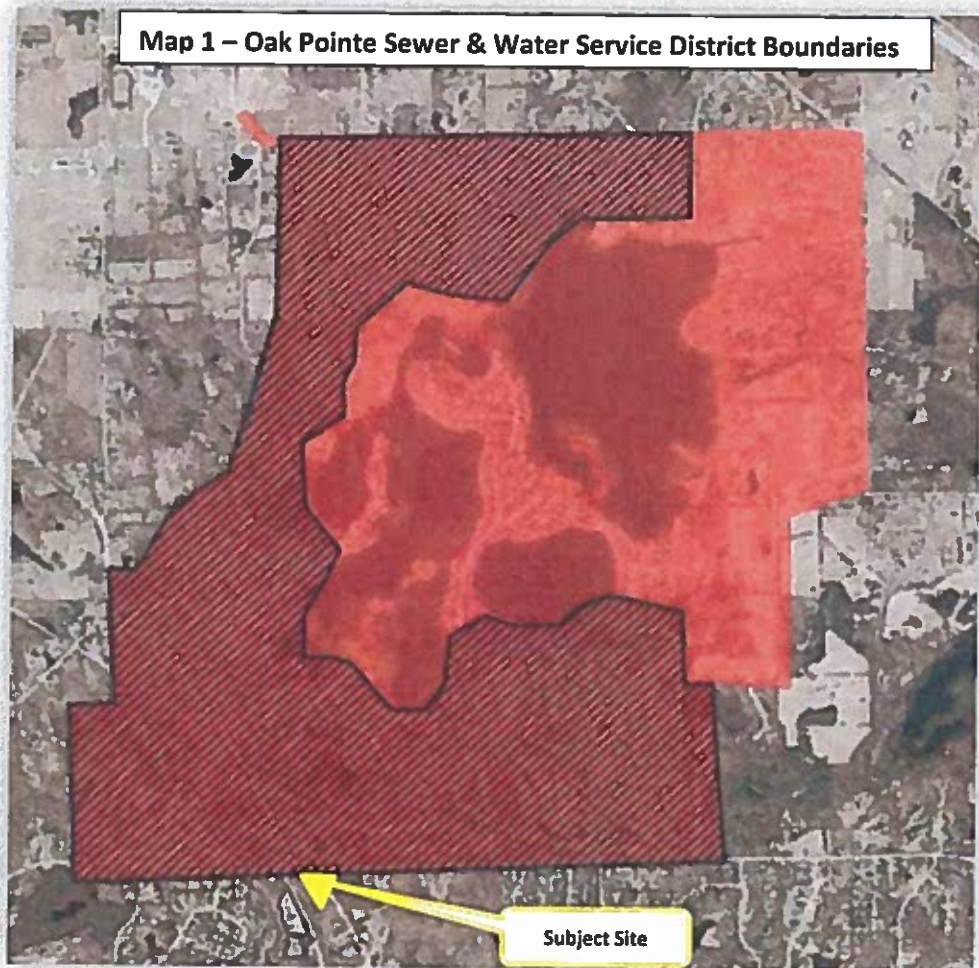


MEMORANDUM

TO: Honorable Board of Trustees
FROM: Kelly VanMarter, Assistant Township Manager
DATE: June 13, 2017
RE: Addition to the Oak Pointe Sewer District

Manager's Review: 

I have reviewed the request by Dewey Thomas dated June 1, 2017 for an expansion of the Oak Pointe Sewer District. The current sewer district boundaries are shown in red on the map (Map 1) below with hatching showing those areas also served with water.



SUPERVISOR

Bill Rogers

CLERK

Paulette A. Skolarus

TREASURER

Robin L. Hunt

TRUSTEES

Jean W. Ledford

H. James Mortensen

Terry Croft

Diana Lowe

MANAGER

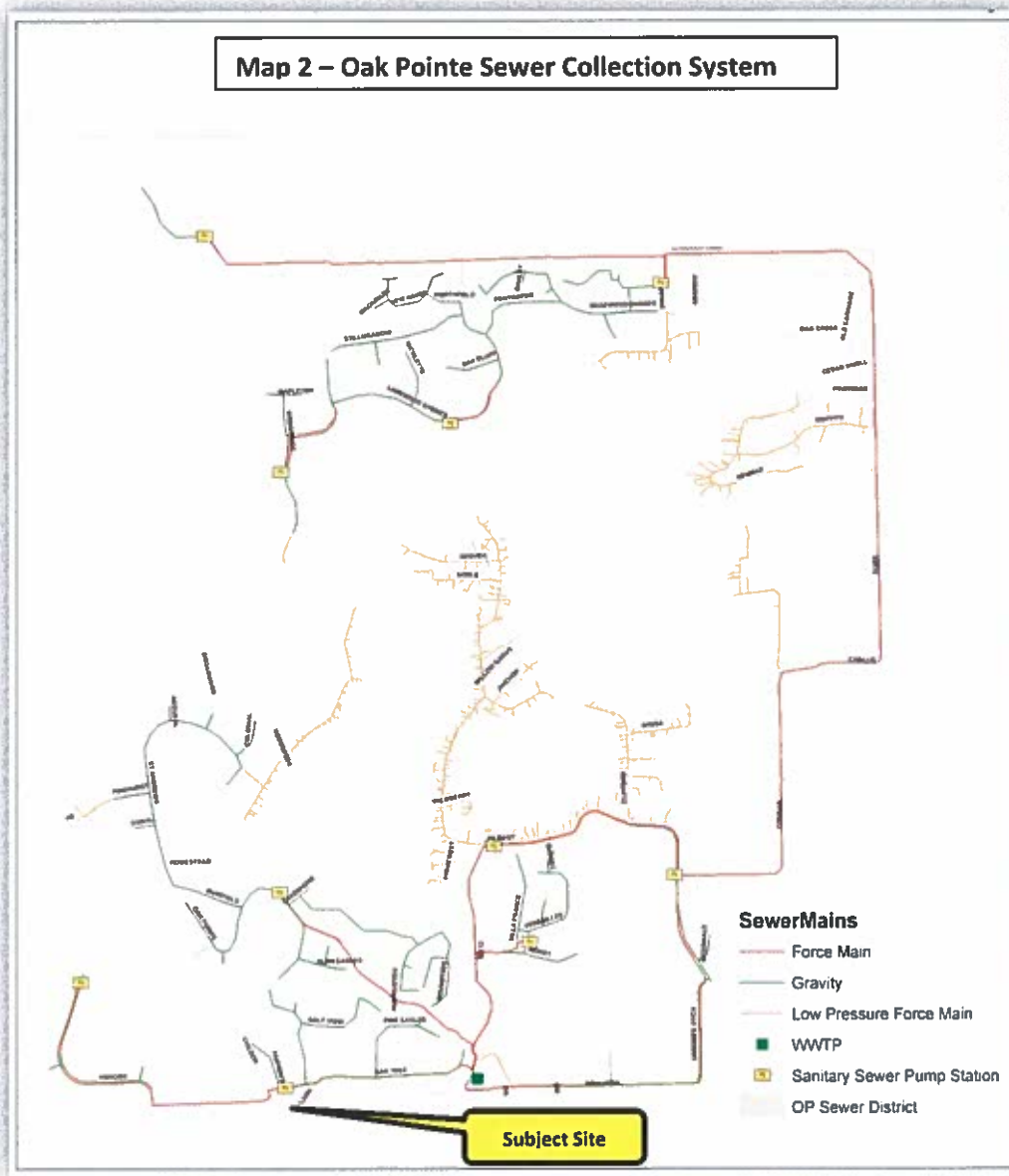
Michael C. Archinal

June 14, 2017

Dewey Thomas – Sanitary Sewer Expansion

Page 2 of 3

The following map (Map 2) shows the collection system for the Sanitary Sewer District.



As explained by the Utility Director in the memo attached as Exhibit A, the request for a private lead presents significant challenges therefore an extension of public sewer main is suggested. If approved, Mr. Thomas's request would be the first expansion of the district boundaries to serve an area south of Brighton Road and could set a precedent for additional requests for service.

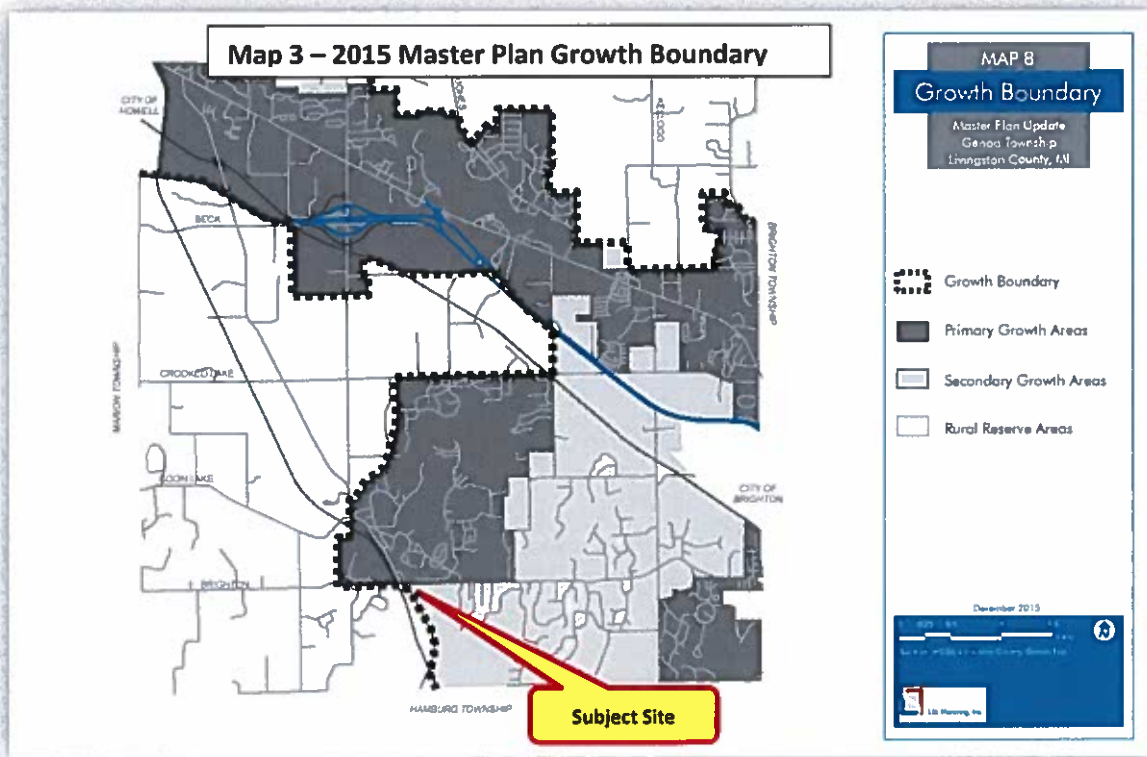
From a planning perspective, an expansion of the sewer district in this location should be carefully considered because it would be contrary to the Township Master Plan Growth

June 14, 2017

Dewey Thomas – Sanitary Sewer Expansion

Page 3 of 3

Boundary shown below in Map 3. Specifically, this request for service would require an extension of the primary growth boundary as presented in Section 5.C. of the Township Master Plan. The 2015 amendment to the Master Plan removed this area from the primary growth area as a result of capacity limitations in the Oak Pointe system. I've attached the background on the Master Plan amendment in the attached Exhibit B for your review. Regardless of the land uses proposed, I do not recommend a deviation from the recently approved Master Plan unless there have been significant changes which would strongly support the departure.



I trust this meets your needs at this time. Please don't hesitate to contact me if you have any questions or concerns in this regard.

Sincerely,

Kelly VanMarter

Assistant Township Manager/Community Development Director



EXHIBIT A MEMO

TO: Kelly VanMarter, Assistant Manager

FROM: Greg Tatara, Utility Director

DATE: June 9, 2017

RE: Private Sewer Lead for Parcel 4711-33-200-019
5033 Chilson Road

MANAGER REVIEW: _____

.....

The Utility Office has reviewed the request to construct a private sewer lead for parcel 4711-33-200-019 (5033 Chilson Road). As shown on the attached utility plan map, existing sanitary facilities are located north of Chilson Road in relationship to this parcel in the common area for the Fairways Subdivision. However, it is the opinion of this office, that “private lead” would not be able to connect to these utilities for the following two reasons:

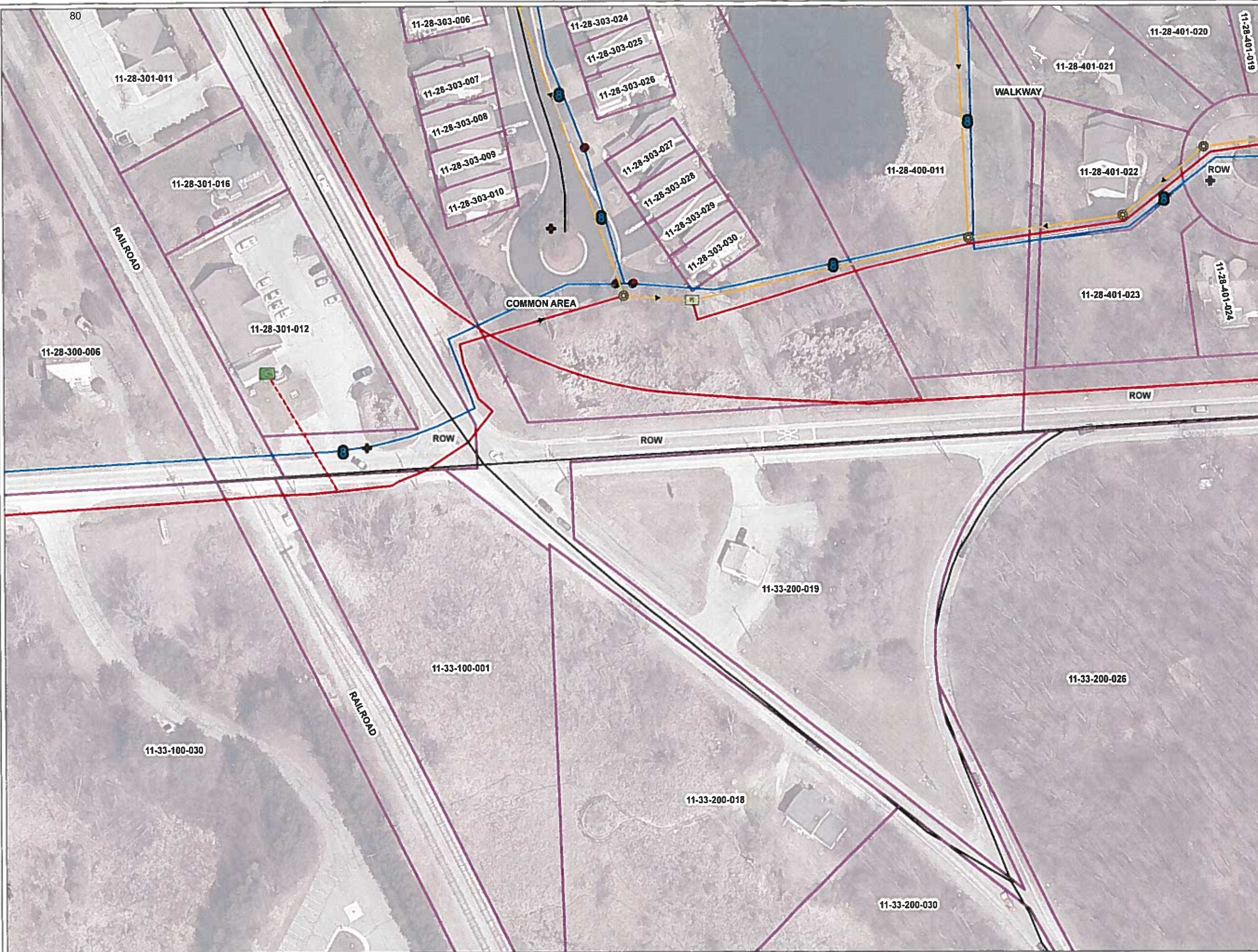
1. As was determined by during the recent construction of the Oak Pointe Sanitary force main from the former Oak Pointe WWTP to the Genoa-Oceola WWTP, the common area of the Fairways allows for installation of “public utilities”. A private lead would require a private easement with the Fairways Condominium Association.
2. The Livingston County Road Commission would have to grant a permit for the construction and maintenance of a sewer lead in the public road right of way. It has been the experience of this office that private utilities are generally not permitted in public right of way due to liability issues and that any service leads would have to be public.

From an engineering standpoint, in order to physically serve this parcel, an approximate 1.5 – inch HDPE force main would be constructed under Brighton Road and connecting the requesting parcel to either the existing gravity sewer or 6-inch force main from Station 56. We do not recommend any connection to the 10-inch transmission main from Oak Pointe to the Genoa Oceola Sewer Plant. The force main would connect to a future grinder pump system on the requesting parcel.



Parcel 4711-33-200-019

MHOG Utilities



1" = 800'

Source: Data provided by MHOG. MHOG does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 HARN StatePlane Michigan South FIPS 2113 Feet Intl

Map Published: June 9, 2017

EXHIBIT B

**RESOLUTION # 151207-A
GENOA CHARTER TOWNSHIP
COUNTY OF LIVINGSTON, MICHIGAN**

**RESOLUTION APPROVING UPDATES TO THE MASTER PLAN
FUTURE LAND USE MAP AND GROWTH BOUNDARY MAP**

At a regular meeting of the Board of Trustees of Genoa Charter Township, Livingston County, Michigan, held on December 07, 2015, at 6:30 p.m. prevailing local time.

PRESENT: McCririe, Skolarus, Hunt, Rowell, Mortensen, Smith and Ledford.

ABSENT: None,

The following Preamble and Resolution were offered by Smith and supported by Ledford:

WHEREAS, Genoa Charter Township initiated a process to update the Master Plan for Land Use which was adopted in 2013; and

WHEREAS, the Genoa Charter Township Planning Commission, pursuant to the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), has studied and prepared recommendations for the use, development and preservation of all lands in the Township; and

WHEREAS, the Planning Commission has developed an update to the Master Plan consisting of research and analyses dealing with land use and utility limitations; and

WHEREAS, the Planning Commission has used the Master Plan analyses to prepare an update to the Future Land Use Map and Growth Boundary Map that allocates land in appropriate amounts for the future development of residential uses in sections 6, 33 and 35; and

WHEREAS, on September 14, 2015, the Planning Commission submitted the plan to the Township Board of Trustees for distribution; and

WHEREAS, on September 21, 2015 the Genoa Charter Township Board of Trustees authorized distribution of the Master Plan as provided by the Michigan Planning Enabling Act (MPEA); and

WHEREAS, the Township complied with required plan development steps of notifying and involving the Livingston County Planning Commission, surrounding communities and outside agencies; and

WHEREAS, the Planning Commission held a public hearing on November 9, 2015, and after giving consideration of all comments and concerns of the public the Commission approved a Resolution to adopt the Updated Master Plan with amendments to the Future Land Use Map and Growth Boundary Map; and

WHEREAS, the Township Board as authorized by the MPEA and by Township Resolution Number 120402 asserts its right to approve or reject the proposed updated Master Plan; and

WHEREAS, the Township Board recognizes that the Master Plan and the Future Land Use and Growth Boundary Maps are guides for public and private decision-making that will keep the Township in motion toward its vision to maintain outstanding quality of life for all residents.

NOW, THEREFORE, BE IT RESOLVED that the Board of Trustees of Genoa Charter Township hereby approves the updated Master Plan and Maps and resolves to use the Plan and Map together as a guide for the overall development of the Township;

AYES: Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe.

NAYS: None

ABSENT: None

ABSTENTIONS: None

CERTIFICATION

I, Paulette A. Skolarus, being the duly elected Clerk of Genoa Charter Township does hereby certify that this Resolution was duly passed at a public meeting of the Genoa Charter Township Board of Trustees held on December 7, 2015 Livingston County, Michigan, at a regular meeting held on December 7, 2015.



Paulette A. Skolarus
December 07, 2015



MEMO

TO: Kelly VanMarter, Assistant Township Manager

FROM: Greg Tatara, Utility Director

DATE: August 27, 2015

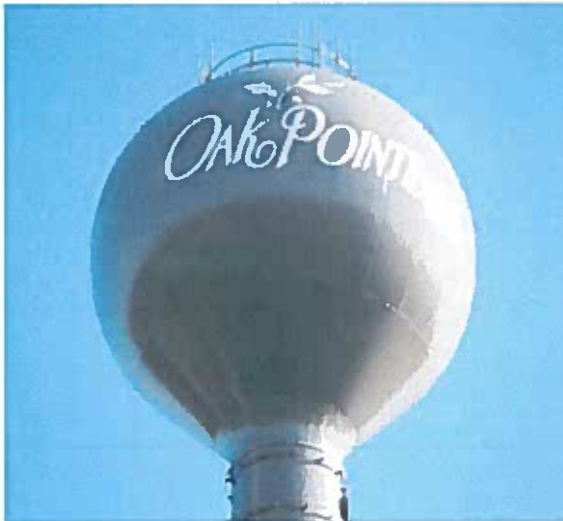
RE: Extension of the Oak Pointe Municipal Water and Sanitary Sewer Boundaries

.....

Per your request, I have prepared this Memo outlining the available capacity with the existing Oak Pointe municipal water and sanitary sewer systems.

Oak Pointe Municipal Water System

The current maximum day demand in the Oak Pointe municipal water system is near the capacity of our wells and exceeds the treatment capacity of the plant. In fact, during periods of high irrigation and demand, we have had to implement water use restrictions to assure that enough water would be available for fire and public safety measures. Current customers also experience diurnal low pressure periods due to high peak demand and the inability of the distribution and production systems to meet these demands.



Currently, the water system has a maximum daily production capability of 1,100 gallons per minute. This equates, when backwash and service water is taken into account, to a maximum daily production amount of 1.45 million gallons per day (MGD). The production capability of Oak Pointe Water System compared to actual demand data from the past several years is at 90%. The Michigan Department of Environmental Quality (MDEQ) recommends that this amount be near 75%, which means that the Oak Pointe Water System is at production capacity and cannot serve additional developments.

In addition, the water treatment process is over capacity. The existing iron removal filters operate at a flow rate of 8 gpm/sft during peak flow, which is significantly over what the recommend 10 State Standards of 3 gpm/sft. Since the facility only removes iron and manganese, there is not as strong regulatory guidelines for iron removal equipment due to the fact that public health is not in danger if the treatment process doesn't function appropriately. However, the existing customers of Oak Pointe expect high

quality water to be supplied at all times. As a result of this over capacity issue, numerous operational measures are taken to ensure we can reliability remove iron during peak summer demand with our current customers, and any expansion of the system will only exacerbate this issue.

Oak Pointe Municipal Wastewater System

The Oak Pointe Wastewater Plant was converted to a pump station and was taken off line in January of 2015, with the wastewater being pumped approximately 5 miles away to the Genoa-Oceola WWTP for treatment. The Sewage Treatment Agreement between Genoa Township and the Genoa Oceola Sewer and Water Authority includes a figure showing the existing Oak Pointe Sanitary Sewer Service Area (Exhibit 1 of the Agreement) and states the following in regards to the future expansion of the district within Genoa Township:

“The line constructed to connect Oak Pointe to the GO WWTP shall be dedicated for the sole purpose of transporting Oak Pointe Flows to the GO Plant and shall not be utilized to transport other flows originated in Genoa Township to the GO WWTP without amendment of this agreement by both Governing Boards.”

In addition to modifications to the existing Sewer Treatment Agreement, if the Township wishes to expand the Oak Pointe sanitary sewer district modifications will be necessary to the Oak Pointe pump station, including, but not limited to modification of the pump flow rates and additional covered equalization and odor control measures at the Oak Pointe pump station.



As outlined above, expanding the existing Oak Pointe municipal water and sanitary sewer presents numerous challenges. Please let me know if you need any further information or have any questions on the above information



October 30, 2015

Planning Commission
Genoa Township
2911 Dorr Road
Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP Assistant Township Manager and Planning Director
Subject:	Proposed Amendments to the 2013 Township Master Plan – End of Review Period

The review period is nearing its conclusion for the minor amendment to the Township's Master Plan. The following changes to maps are proposed for this update. Please see the attached maps for specific locations to be changed.

- On Map 7: Future Land Use, an area has been changed from Small Lot Single Family (2 to 3 units per acre) to Low Density Single Family (1 acre per unit) residential. The corresponding area has also been changed on Map 8: Growth Boundary, from a Primary Growth Area to a Secondary Growth Area.
- On Map 7: Future Land Use, Township staff precipitated a change for the property on Chilson Road (formerly known as Aspen Glen) after internal discussion and meeting with prospective purchasers from MDR to HDR.

Since neither area is referenced specifically in the text, only these two maps have changed and the rest of the plan would remain as adopted in 2013.

During the review period, comments were received from the City of Brighton, Livingston County Planning Commission, City of Howell, and Hartland Township, all of which were supportive of the changes proposed.

The next steps in the process to adopt this amendment are as follows:

- November 9: Following the 42-day review period, Planning Commission conducts a public hearing, reviews any comments received, adopts the amended plan, and forwards to Township Board for their approval
- December 7: Township Board adopts amended plan.

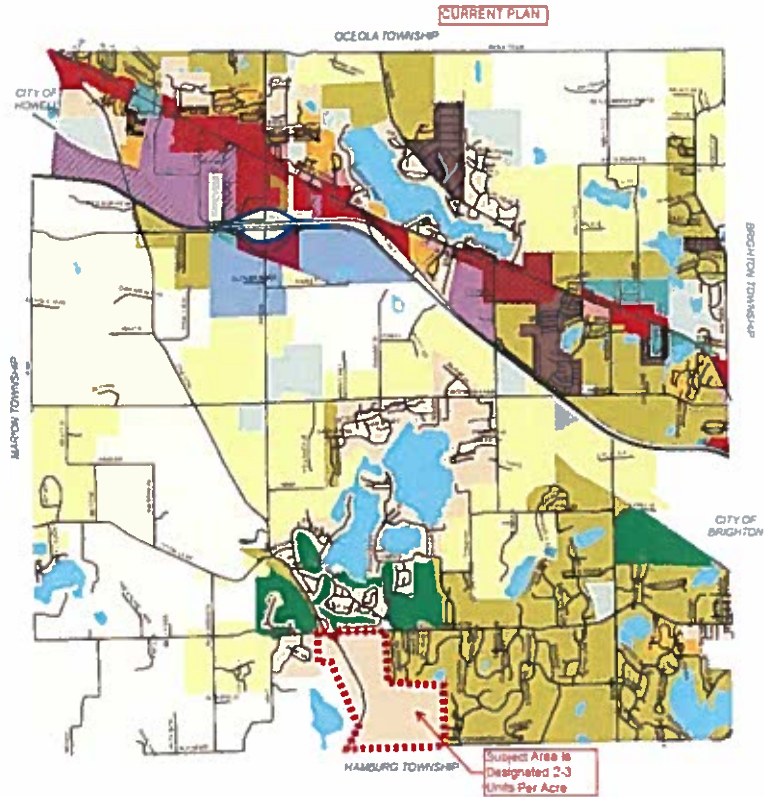
Should you have any questions concerning this matter, please do not hesitate to contact our office. We can be reached by phone at (248) 586-0505, or via e-mail at borden@lslplanning.com and duffy@lslplanning.com.

Sincerely,
LSL PLANNING, INC.

Brian V. Borden, AICP
Principal Planner

Kathleen Duffy, AICP
Project Planner II

This page shows the 2013 Maps - BEFORE the amendment

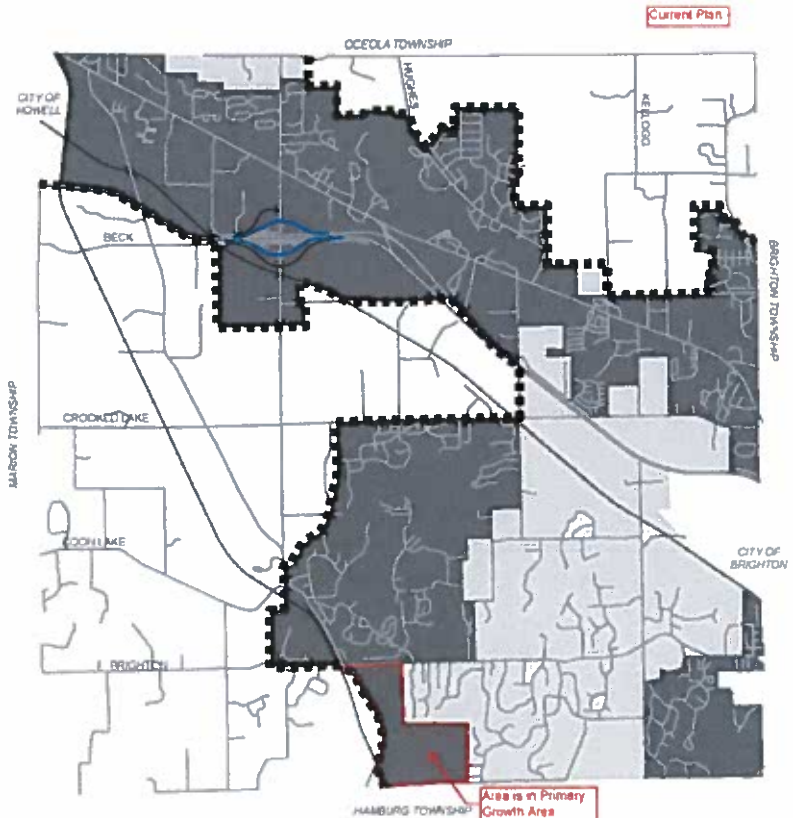


MAP 7
Future Land Use
 Master Plan Update
 Genoa Township
 Livingston County, MI

- AGRICULTURE/COUNTRY ESTATE - 5 acres per unit
- LARGE LOT RURAL RESIDENTIAL - 2 acres per unit
- LOW DENSITY RESIDENTIAL - 1 acre per unit
- SMALL LOT SINGLE FAMILY RESIDENTIAL - 2 to 3 units per acre
- MEDIUM DENSITY RESIDENTIAL - 5 units per acre
- HIGH DENSITY RESIDENTIAL - 8 units per acre
- MANUFACTURED HOUSING
- NEIGHBORHOOD COMMERCIAL
- GENERAL COMMERCIAL
- REGIONAL COMMERCIAL
- MIXED-USE TOWN CENTER
- OFFICE
- INDUSTRIAL
- RESEARCH AND DEVELOPMENT
- PUBLIC/INSTITUTIONAL/UTILITIES
- PRIVATE RECREATION
- INTERCHANGE CAMPUS
- INTERCHANGE COMMERCIAL

October 2013

ES Planning, Inc.

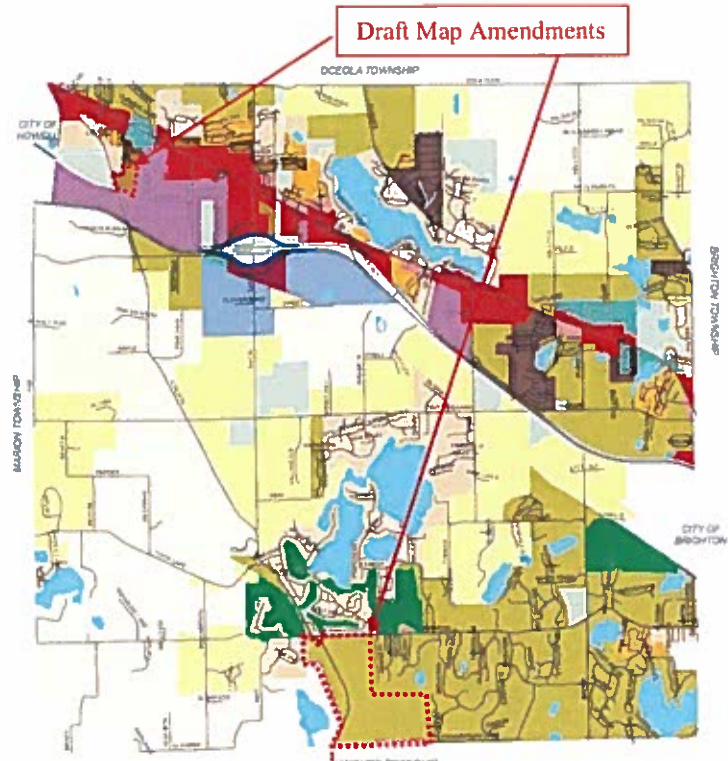


MAP 8
Growth Boundary
 Master Plan Update
 Genoa Township
 Livingston County, MI

- Growth Boundary
- Primary Growth Areas
- Secondary Growth Areas
- Rural Reserve Areas

October 2013

ES Planning, Inc.

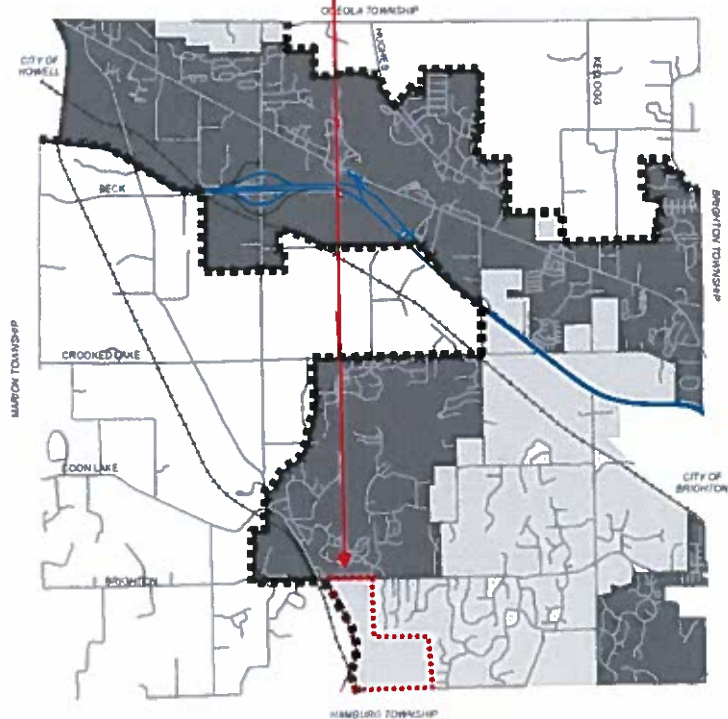


MAP 7
Future Land Use
 Master Plan Update
 Genoa Township
 Livingston County, MI

- AGRICULTURE/COUNTRY ESTATE - 5 acres per unit
- LARGE LOT RURAL RESIDENTIAL - 2 acres per unit
- LOW DENSITY RESIDENTIAL - 1 acre per unit
- SMALL LOT SINGLE FAMILY RESIDENTIAL - 2 to 3 units per acre
- MEDIUM DENSITY RESIDENTIAL - 5 units per acre
- HIGH DENSITY RESIDENTIAL - 8 units per acre
- MANUFACTURED HOUSING
- NEIGHBORHOOD COMMERCIAL
- GENERAL COMMERCIAL
- REGIONAL COMMERCIAL
- MIXED-USE TOWN CENTER
- OFFICE
- INDUSTRIAL
- RESEARCH AND DEVELOPMENT
- PUBLIC INSTITUTIONAL/UTILITIES
- PRIVATE RECREATION
- INTERCHANGE CAMPUS
- INTERCHANGE COMMERCIAL

October 2015

U.S. Planning, Inc.



MAP 8
Growth Boundary
 Master Plan Update
 Genoa Township
 Livingston County, MI

- Growth Boundary
- Primary Growth Areas
- Secondary Growth Areas
- Rural Reserve Areas

August 2015

U.S. Planning, Inc.

Dewey E. Thomas
5819 Marchar Lane
Howell, Michigan 48843

June 1, 2017

Mr. Bill Rogers, Supervisor
Genoa Charter Township
2911 Dorr Road
Brighton, Michigan 48116

Re.: Parcel # 4711-33-200-019
5033 Chilson Road

Dear Mr. Rogers,

I am writing to request consideration from the Township Board to allow a "private lead" from my property located at 5033 Chilson Road into the Oak Pointe Sanitary Sewer District, the access point of which is located in the "Fairways" subdivision directly across Brighton Road from my property.

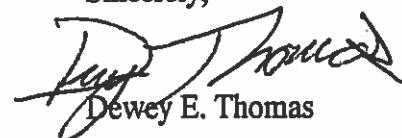
The business which has historically operated on my property as a drive-thru restaurant with walk-in retail, is presently serviced by an engineered septic system. The source of the waste was from a sink and a bathroom, substantially less than a single family residence.

Based on the possibility of expanded uses for this unique parcel to a "conditional re-zone in regional commercial" my proposal for this property is to allow 2 gasoline islands and a walk-in retail area. It has been suggested that 2.6 REUs would be an appropriate estimate of usage, subject to final approval of the proposed land use.

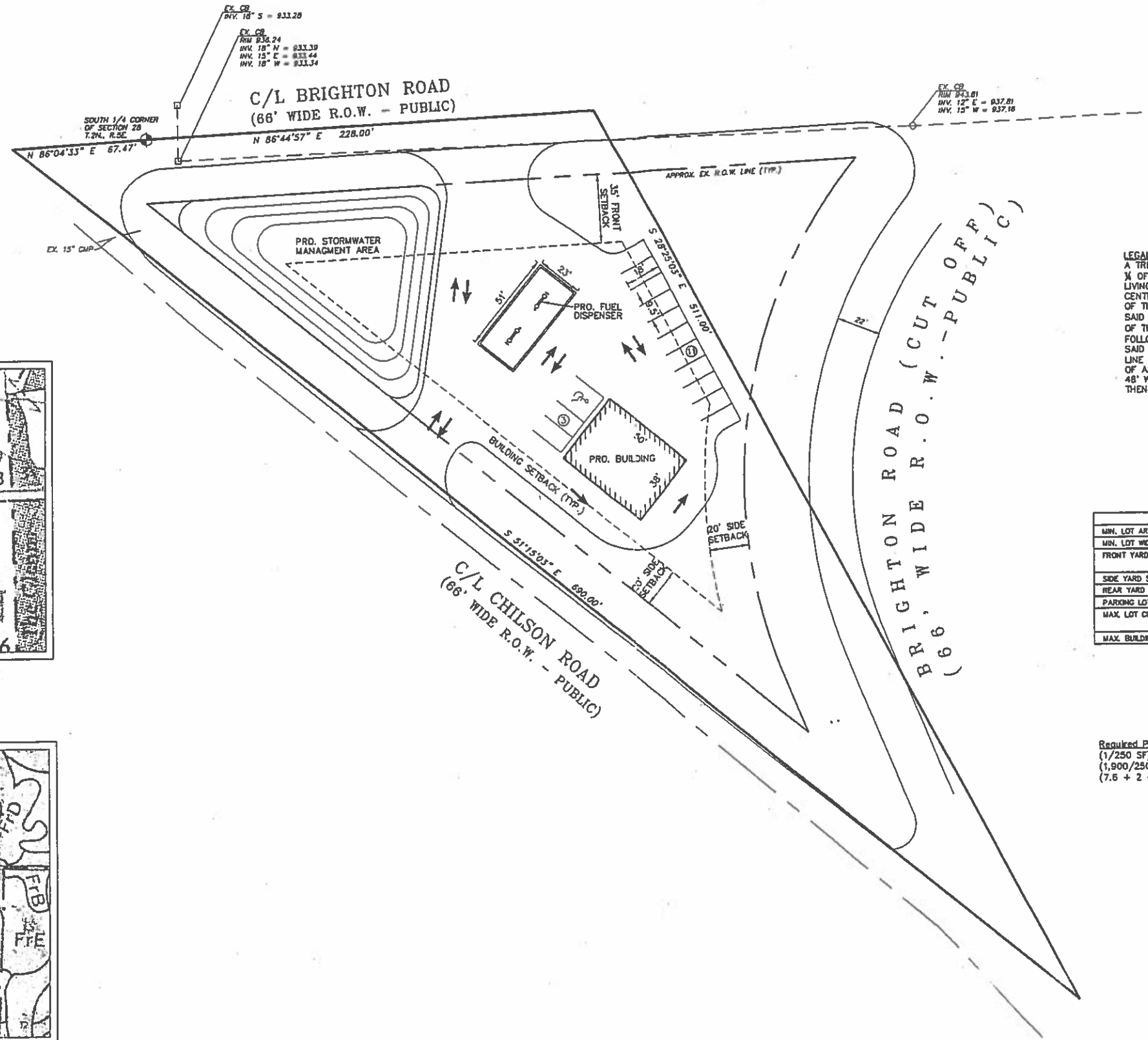
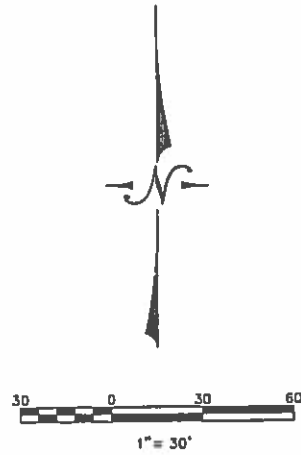
The attached conceptual drawing indicates setbacks from all three roads, ie.: Chilson and Brighton Roads and the Chilson Bypass, the location of the existing well servicing the property and potential placement of gasoline islands and building.

I would appreciate a reply. Thank you for your consideration.

Sincerely,



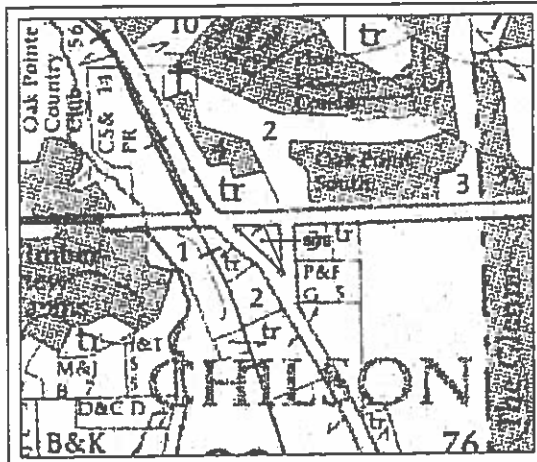
Dewey E. Thomas



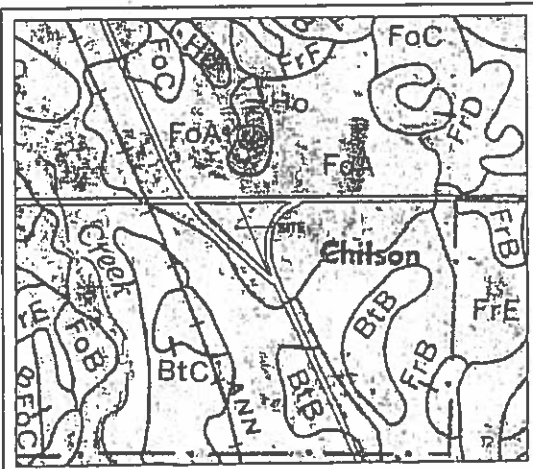
LEGAL DESCRIPTION FOR 5033 CHILSON ROAD
 A TRIANGULAR PIECE OF LAND IN THE NORTH PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 33, T2N-R5E, GENDA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN AND LYING WESTERLY OF THE CENTER OF THE ANN ARBOR HIGHWAY SO CALLED AND EASTERLY OF THE CENTER OF THE NEW RIGHT OF WAY OR CUT-OFF OF SAID HIGHWAY AND BEING ALL THAT PORTION OF THE SAID NW 1/4 OF THE NE 1/4 OF SECTION 33 THAT WOULD BE INCLUDED IN THE FOLLOWING DESCRIPTION: COMMENCING AT THE N 1/4 POST OF SAID SECTION 33, T2N-R5E, MICHIGAN RUNNING EAST ON SECTION LINE 228 FEET; THENCE SOUTH 25°10' EAST ALONG THE CENTER OF ANN ARBOR HIGHWAY SO CALLED 511 FEET; THENCE NORTH 48° WEST 680 FEET TO THE NORTH LINE OF SAID SECTION; THENCE EAST 67 FEET TO THE PLACE OF BEGINNING.

	PROPOSED
MIN. LOT AREA	1.573 ACRES
MIN. LOT WIDTH	N/A
FRONT YARD SETBACK	35' ALL SIDES
SIDE YARD SETBACK	20'
REAR YARD SETBACK	N/A
PARKING LOT SETBACK	10' FROM PROP. LINE.
MAX. LOT COVERAGE	2.8%
MAX. BUILDING HEIGHT	1 STORY

Required Parking
 $(1/250 \text{ SF}) + (2/\text{employee}) + (1/500 \text{ SF}) =$
 $(1,900/250) + (2/1) + (1,900/500) =$
 $(7.6 + 2 + 3.8) = 13.4 = 14 \text{ SPACES}$



LOCATION MAP
 NOT TO SCALE

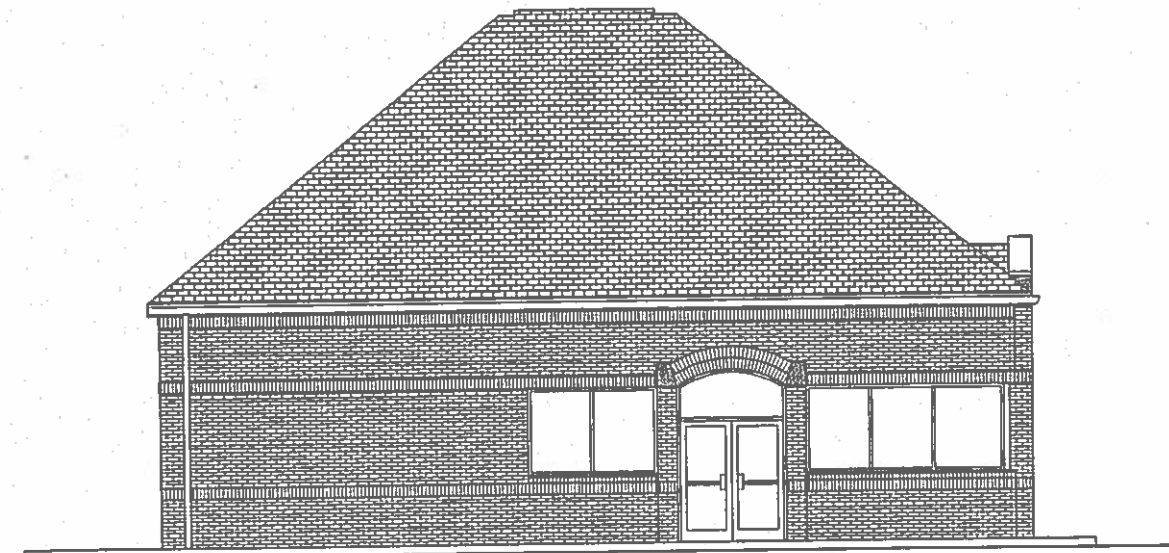


SOIL MAP
 NOT TO SCALE

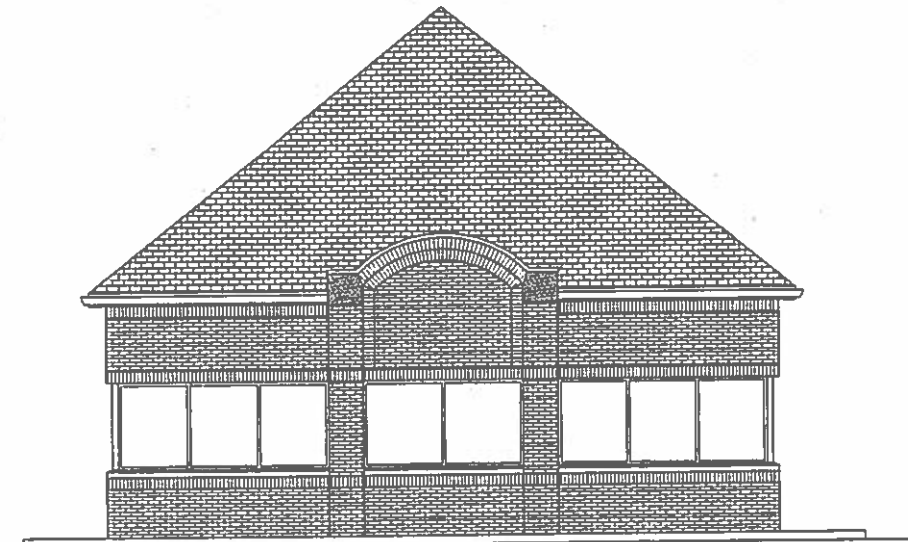
SOIL LEGEND
 FaA - Fox Sandy Loam, 0 to 2 percent slopes

NOTE:
 LEGAL DESCRIPTION, SITE BOUNDARY,
 AND ELEVATION DATA TAKEN FROM
 SITE PLAN PREPARED BY BOSS
 ENGINEERING ON 4-17-90.

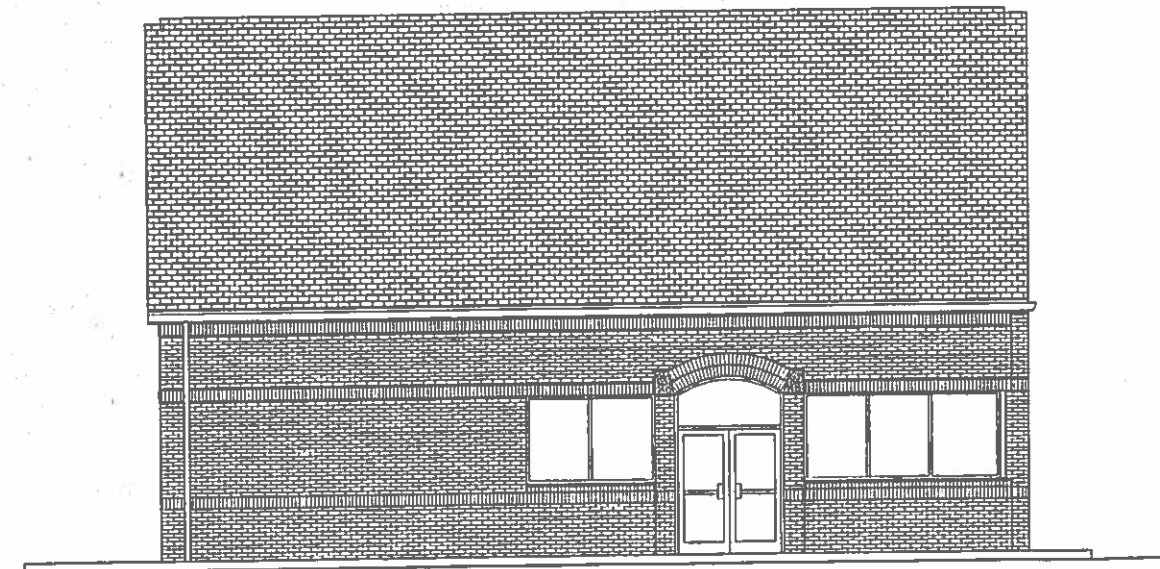
Dewey



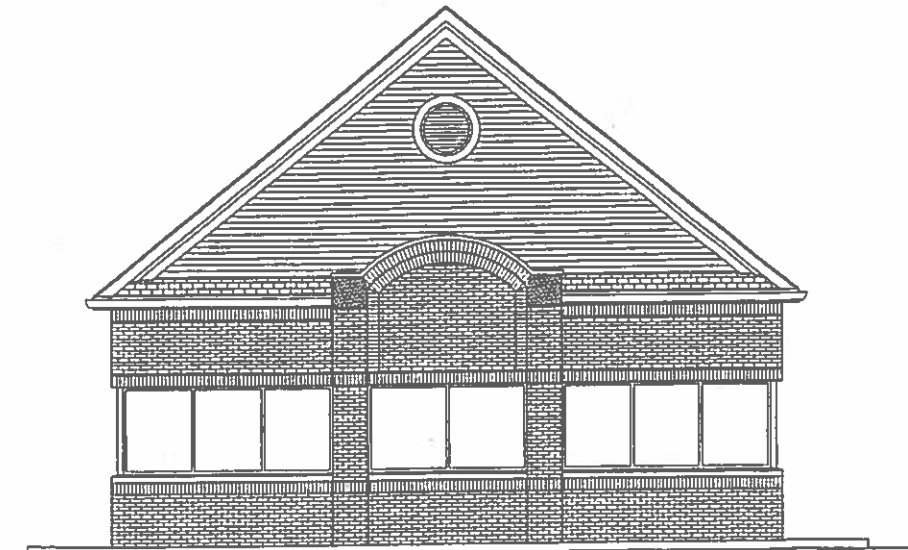
SIDE ELEVATION-ALT1



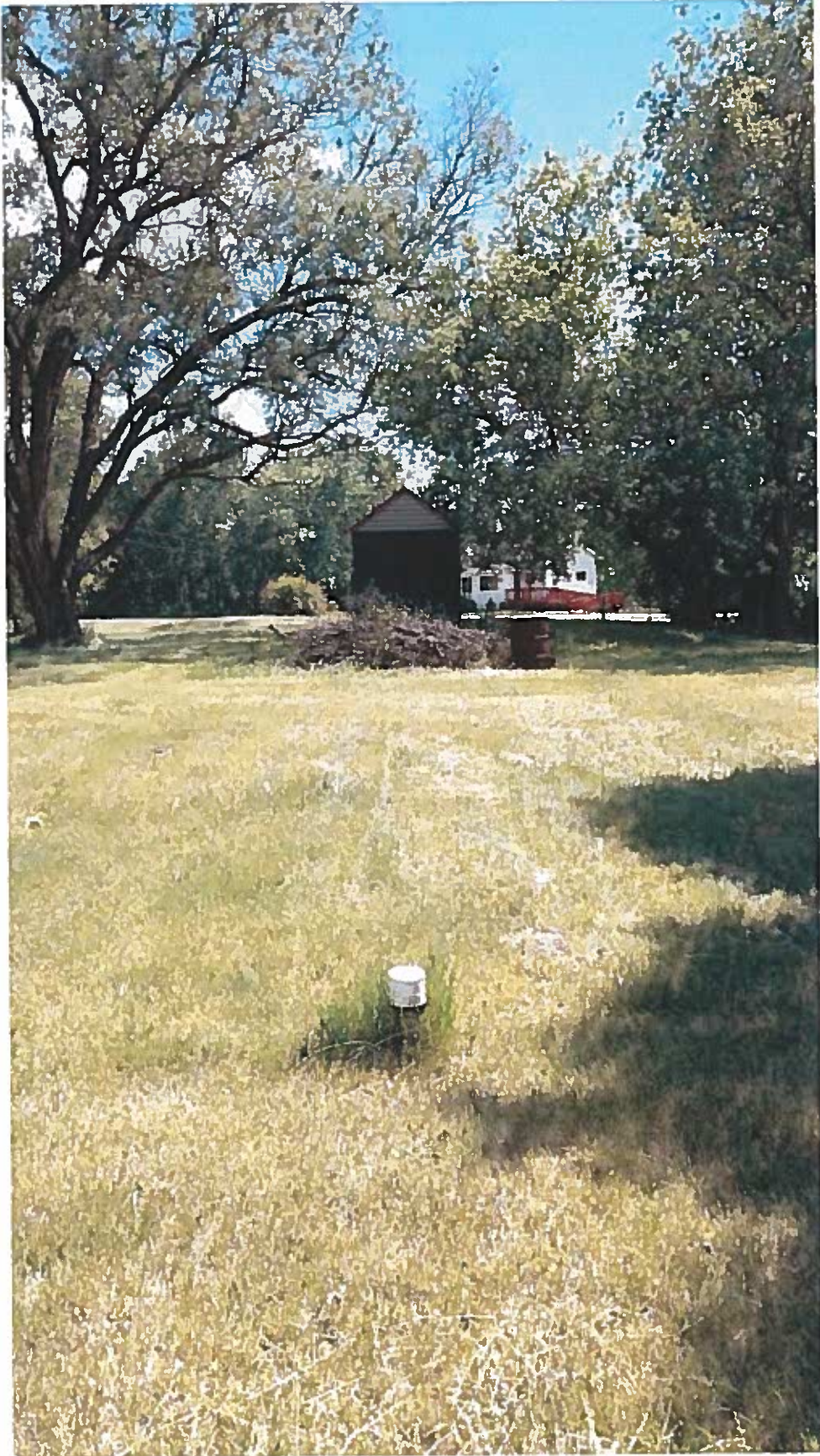
FRONT ELEVATION - ALT1



SIDE ELEVATION-ALT2



FRONT ELEVATION-ALT2








MEMORANDUM

TO: Township Board

FROM: Michael Archinal 

DATE: 6/15/17

RE: Special Assessment Revolving Fund Interest

Fund #264 is the fund we use to finance special assessments such as weed control and road improvements. We currently do not charge interest on these monies. In my experience and research we are unique in this regard.

The recession of 2008 caused demand for special assessments to be pent up. As the housing market has improved and subdivision roads have continued to deteriorate we have experienced a sharp increase in petitions for special assessments. Since FY 2012/2013 we have transferred \$2,450,000 into fund #264 to keep it solvent. The recently adopted budget assumes an additional \$1,500,000 in contributions over the next five years. These amounts are in addition to the Township at-large contributions of \$1,000 per home or 25% of project costs for subdivision roads.

These contributions put an enormous strain on our general fund capital expenditures. Other than chloride we have done nothing for our gravel roads for several years. We have spent relatively little on paved road improvements through cost sharing with the Road Commission's Pavement Management Program. We have switched to every other year for sidewalk installations and have not spent any significant amounts on park improvements or acquisition.

Fund #264 especially as it applies to subdivision roads benefits a small percentage of our approximately 20,000 residents. The opportunity cost of general fund dollars supporting fund #264 is deferred capital improvements that would benefit a broader population. Charging at least nominal interest such as the Short Term Federal Applicable Rate (which is tied to Treasury Bills) for financing special assessments acknowledges this opportunity cost and is equitable for those tax payers not benefitted by special assessments.

This item is for discussion only. I look forward to hearing your thoughts in this regard.

REV. RUL. 2017-11 TABLE 1

Applicable Federal Rates (AFR) for May 2017

	<u>Annual</u>	<u>Period for Compounding</u>		<u>Monthly</u>
		<u>Semiannual</u>	<u>Quarterly</u>	
<u>Short-term</u>				
AFR	1.15%	1.15%	1.15%	1.15%
110% AFR	1.27%	1.27%	1.27%	1.27%
120% AFR	1.38%	1.38%	1.38%	1.38%
130% AFR	1.51%	1.50%	1.50%	1.50%
<u>Mid-term</u>				
AFR	2.04%	2.03%	2.02%	2.02%
110% AFR	2.24%	2.23%	2.22%	2.22%
120% AFR	2.45%	2.44%	2.43%	2.43%
130% AFR	2.66%	2.64%	2.63%	2.63%
150% AFR	3.07%	3.05%	3.04%	3.03%
175% AFR	3.58%	3.55%	3.53%	3.52%
<u>Long-term</u>				
AFR	2.75%	2.73%	2.72%	2.71%
110% AFR	3.02%	3.00%	2.99%	2.98%
120% AFR	3.31%	3.28%	3.27%	3.26%
130% AFR	3.58%	3.55%	3.53%	3.52%

BOARD CORRESPONDENCE

BRIGHTON AREA FIRE AUTHORITY
May 11, 2017
Regular Board Meeting

A Regular Meeting of the Brighton Area Fire Authority Board was held on Thursday, May 11, 2017, at the Main Fire Station at 615 W. Grand River Ave, Brighton, Michigan. This Regular Meeting was called to order by Chairperson Jim Muzzin, at 8:00 a.m.

PRESENT: **BILL ROGERS**
 JIM MORTENSEN
 LUCILLE WEAIRE
 PATRICK MICHEL
 SHAWN PIPOLY
 JIM MUZZIN
 MIKE CORRIGAN

ABSENT: **None**

ALSO PRESENT: **Chief O'Brian**
 Neal Nielsen, Esq.

Call to the Public
None

Approval of Consent Agenda

- 17:022 Motion by Lucille Weaire, supported by Jim Mortensen.
 That we approve the Consent Agenda as amended.

Motion carried unanimously.

Brighton Area Fire Authority
 Regular Meeting
 May 11, 2017
 Page 2 of 4

Approval of Regular Agenda

17:023 Motion by Bill Rogers, supported by Patrick Michel.
 That we approve the Regular Agenda as amended.

Motion carried unanimously.

2017/2018 Operating Fund Budget

17:024 Motion by Jim Mortensen, supported by Lucille Weaire.
 That we approve the Operating Budget for year ending June 30, 2018 with estimated revenue of \$3,933,556 with expenses of \$4,047,766.

AYES: Shawn Pipoly, Bill Rogers, Patrick Michel, Jim Mortensen,
 Lucille Weaire, Mike Corrigan, Jim Muzzin

NAYS: None

ABSENT: None

Motion carried 7-0

2017/2018 Capital Reserve Fund Budget

17:025 Motion by Bill Rogers, supported by Patrick Michel.
 That we approve the Capital Reserve Budget for the year ending June 30, 2018 with estimated revenue and transfers of \$626,500 and expenses of \$462,000.

AYES: Shawn Pipoly, Jim Mortensen, Bill Rogers, Lucille Weaire,
 Patrick Michel, Jim Muzzin, Mike Corrigan

NAYS: None

ABSENT: None

Motion carried 7-0

2017/2018 Compensated Absences Fund Budget

17:026 Motion by Patrick Michel, supported by Mike Corrigan.
 That we approve the Compensated Absences Fund Budget for the year ending June 30, 2018 with total revenue \$200 and expenses of \$0.00.

AYES: Shawn Pipoly, Jim Mortensen, Bill Rogers, Lucille Weaire,
 Patrick Michel, Jim Muzzin, Mike Corrigan

NAYS: None

ABSENT: None

Motion carried 7-0

2017/2018 Chargeback Reserve Fund Budget

17:027 Motion by Lucille Weaire, supported by Mike Corrigan.
 That we approve the Chargeback Reserve Budget for the year ending June 30, 2018 with estimated revenue of \$100 and expenses of \$40,000.

AYES: Shawn Pipoly, Jim Mortensen, Bill Rogers, Lucille Weaire,
 Patrick Michel, Jim Muzzin, Mike Corrigan

NAYS: None

ABSENT: None

Motion carried 7-0

Request Approval to Purchase Two Replacement Staff Vehicles

17:028 Motion by Patrick Michel, supported by Shawn Pipoly.
 That we approve the purchase of (2) replacement staff vehicles including emergency equipment not to exceed \$100,000 for two vehicles.

AYES: Shawn Pipoly, Bill Rogers, Patrick Michel, Jim Mortensen,
 Lucille Weaire, Mike Corrigan, Jim Muzzin

NAYS: None

ABSENT: None

Motion carried 7-0

Brighton Area Fire Authority
 Regular Meeting
 May 11, 2017
 Page 4 of 4

Amendment to Capital Reserve Fund Budget for FYE June 30, 2017

17:029 Motion by Lucille Weaire, supported by Mike Corrigan.
 That we approve the amendment to the Capital Reserve Fund Budget for FYE June 30, 2017 in the amount of \$920,916 in estimated revenue and \$538,270 in expenditures.

AYES: Shawn Pipoly, Bill Rogers, Patrick Michel, Jim Mortensen,
 Lucille Weaire, Mike Corrigan, Jim Muzzin

NAYS: None

ABSENT: None

Motion carried 7-0

Good of the Order

Brighton Fire along with other Livingston County agencies have been extremely busy in recent days. One incident in particular was the two car accident with 5 fatalities on M-59 and Argentine road in Oceola Township that required a lot of resources.

Our CPR save numbers are going up due to the use of the ResQ pump and increasing the number of personnel on scene. We currently have eight ResQ pumps which were paid for by Medical Control.

In the coming days, Chief O'Brian will be meeting with our fiduciary's to look at the trust accounts.

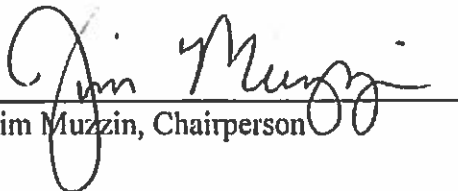
Brighton Fire along with police and EMS conducted their mock incident scenario for 2400 students on May 9th on the football field at Brighton High School where they simulated an accident scene with victims needing extrication. The scenario illustrates the impact of drinking & driving and texting.

Chief O'Brian had a chance to talk with some of the BHS students at the mock incident. Apparently the students are having a hard time getting corsages for prom this weekend due to Mother's Day.

Firehouse Friday is June 2nd from 6:00 am – 9:30 am.

Adjournment

Motion by Patrick Michel, supported by Mike Corrigan, that we adjourn this meeting.
 Motion carried unanimously. This meeting was adjourned at 8:40 a.m.


 Jim Muzzin, Chairperson